



**ABF FREIGHT SYSTEM, INC.**  
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**RECEIVED**

By Alameda County Environmental Health at 8:17 am, Feb 25, 2013

February 18, 2013

Mr. Mark Detterman, RG, CEG  
Senior Hazardous Materials Specialist  
Alameda County Environmental Health Department  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: **Perjury Statement-**  
***Soil, Groundwater and Sub-Slab Vapor Investigatio***  
ABF Freight System Facility (SLIC Case No. RO#0003033)  
4575 Tidewater Avenue  
Oakland, California

Dear Mr. Detterman:

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

Sincerely,

Michael K. Rogers  
Director, Real Estate  
Arkansas Best Corporation





February 22, 2013  
Project 154.004.008

Mr. Mark Detterman, RG, CEG  
Senior Hazardous Materials Specialist  
Alameda County Environmental Health Department  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: *Soil, Groundwater and Sub-Slab Vapor Investigation Report*  
ABF Freight System Facility  
4575 Tidewater Avenue  
Oakland, California

Dear Mr. Detterman:

This letter, prepared by Trinity Source Group, Inc. (Trinity) on behalf of ABF Freight System, Inc. (ABF), presents a *Soil, Groundwater and Sub-Slab Vapor Investigation Report (Report)* for the referenced site (Figures 1 and 2). This *Report* details the second phase of a two-phase investigation that was proposed in the *Soil and Groundwater Investigation Work Plan Addendum (Work Plan Addendum)*, dated March 6, 2012. The results of the first phase of the investigation were presented in the *Soil, Groundwater and Sub-Slab Vapor Data Package (Data Package)*, dated July 27, 2012. Based on the results of the first phase, Trinity completed this second phase scope of work. The second phase scope was approved by the Alameda County Environmental Health Department (ACEH) in an e-mail dated November 20, 2012. The ACEH approved a report extension in an e-mail dated January 14, 2012. Regulatory correspondence is included in Attachment A.

## **SCOPE OF WORK**

On December 17, 2012, Trinity completed the second phase of work as described in the *Work Plan Addendum* and *Data Package*, with modifications established through discussions with ACEH. The second phase of work included the following activities:

- Drilling and sampling soils and groundwater at one additional soil boring (B-12).
- Drilling, sampling soils, and installing and sampling groundwater from two groundwater monitoring wells (MW-3 and MW-4) to delineate the extent of impacts.

- Conducting a second sampling event at sub-slab vapor Probes SVP-1 and SVP-2. Due to laboratory error and leaks detected in the sampling process, these probes were sampled multiple times to secure the second sampling event data.

Field procedures are presented in Attachment B. Figure 2 shows the locations of the soil borings, monitoring wells and sub-slab vapor probes at the site. Specific tasks performed to complete this scope of work are described below.

### **Prefield**

Pre-field tasks included obtaining permits, marking borehole locations and calling in a USA ticket, preparing a site-specific health and safety plan and notifying inspectors and the property tenants. The permits are included in Attachment C.

### **Soil Boring and Drilling**

On December 20, 2012, Borings B-12, MW-3 and MW-4 were drilled using a direct-push rig. Boring B-12 was advanced to a total depth of 12 feet below ground surface (bgs), where a grab-groundwater sample was collected. Wells MW-3 and MW-4 were advanced to a total depth of 12 feet.

The boreholes were continuously sampled by pushing an acetate sample liner in 4-foot intervals through the soil. The soils were logged using the Unified Soil Classification System (USCS) by Trinity staff. Samples were collected at 2-foot intervals and screened with a photoionization detector (PID). Selected samples were preserved in the liners and placed on ice with chain of custody documentation for transport to the laboratory. The soil boring and well locations are shown on Figure 2. Boring logs are included in Attachment D.

### **Well Installation**

The boreholes for Wells MW-3 and MW-4 were overdrilled to a depth of 10 feet bgs, using hollow-stem augers replacing the direct-push equipment on the drill rig. The monitoring wells were installed with 2-inch diameter PVC casing and screened from 3.5 to 10 feet bgs with 0.020-inch slotted screen. A filter pack of #3 sand was placed around the well casing from the bottom to approximately 0.5 feet above the screen at a depth of 3 feet bgs. A foot of hydrated bentonite was placed in the well as a seal from approximately 2 to 3 feet bgs. The top two feet were sealed with Portland cement grout. The well was completed with a traffic-rated well vault and set flush with grade.

The well construction details for Wells MW-3 and MW-4 are included on the boring logs in Attachment D. Well Completion Reports for the groundwater monitoring wells are also included in Attachment D.

### **Well Development and Sampling**

Monitoring Wells MW-3 and MW-4 were developed on January 4, 2013 by surging and purging. Wells MW-3 and MW-4 were sampled by Trinity on January 7, 2013. The wells were purged and sampled, and the samples were placed into laboratory-supplied containers. The samples were labeled, placed on ice,

and transported to the laboratory with chain-of-custody documentation. Depth-to-water measurements were taken in Wells MW-1 through MW-4 on February 8, 2013. Field data sheets for the well development, gauging and sampling are presented in Attachment E.

### **Surveying**

Wells MW-1 through MW-4 were surveyed by a licensed land surveyor, Mid Coast Engineers, on January 9, 2013. The survey data was uploaded to Geotracker and the measured elevations were used to create groundwater contours. The survey data is shown in Attachment F.

### **Sub-Slab Vapor Probe Sampling**

Sub-slab vapor Probes SVP-1 and SVP-2 were sampled on December 17, 2012. However, the laboratory failed to complete all of the required analyses, so the probes were re-sampled on January 17, 2013. Because the seal for the SVP-1 probe appeared to be loose, Trinity replaced the probe a short distance away, using a Vapor Pin™. The SVP-1 probe was successfully sampled and analyzed. The SVP-2 sample had an unacceptably high concentration of helium, the leak check compound; therefore, that sample was discarded. McCampbell Analytical, Inc. was used for these analyses.

Probe SVP-2 was re-sampled on February 5, 2013. Two Summa canisters were filled on that date, and both were analyzed by Torrent Laboratory, Inc. Trinity used 1,1-difluoroethane (1,1-DFE) as the leak check compound for these samples. The samples had very similar results, but one had 1,1-DFE reported at a concentration that was more than ten times the reporting limit. Therefore, the second sample analytical results are utilized for this report. Sub-slab sampling procedures are presented in Attachment B.

### **Laboratory Analysis**

Two soil samples from each boring, for a total six soil samples, and one grab-groundwater sample from Boring B-12 were submitted under chain-of-custody to ESC Lab Sciences (ESC) of Mt. Juliet, Tennessee (NELAP#-1157CA) on December 17, 2012. Groundwater samples from Wells MW-3 and MW-4 were collected on January 7, 2013 and submitted under chain-of-custody to ESC.

All soil and groundwater samples were submitted with requests to analyze for:

- Total petroleum hydrocarbons as gasoline (TPHg), TPH as diesel (TPHd) with silica gel cleanup by EPA Method 8015.
- Benzene, toluene, ethylbenzene, and xylenes (BTEX), by EPA Method 8260.
- Methyl tert-butyl ether (MTBE), tert-butanol (TBA), diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), ethylene dibromide (EDB), ethylene dichloride (EDC), and naphthalene by EPA Method 8260.

Additionally, groundwater samples from Wells MW-3 and MW-4 were analyzed for:

- TPH as Oil and Grease with silica gel cleanup by EPA Method 8015.
- Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270C SIM.

Sub-slab vapor samples were submitted under chain-of-custody protocol to McCampbell Analytical, Incorporated, of Pittsburg, California (ELAP #1644) or Torrent Laboratory, Inc. of Milpitas, California (ELAP# 1991). These samples were analyzed for the following:

- TPHg and VOCs by EPA Method TO-15 with low detection limits requested.
- Naphthalene was analyzed by EPA Method TO-17 on samples collected via sorbent tubes.
- Helium (the leak test compound for December 2012 and January 2013 sample events) was analyzed by Method ASTM-1946D, along with, oxygen, methane and carbon dioxide.
- 1,1-DFE was used for leak detection for the sub-slab vapor sampling on February 5, 2013, and was analyzed by EPA Method TO-15.

Certified analytical reports, chain-of-custody documents, and GeoTracker upload confirmations are included in Attachment G.

## **INVESTIGATION-DERIVED WASTES DISPOSAL**

Investigation-derived wastes including soil cuttings and well development and purge water were placed into appropriate 55-gallon drums, labeled and stored onsite. Belshire Environmental Services, Inc. picked up the drums for proper disposal. The transporter-executed disposal documents are included in Attachment H. The final documentation showing disposal site receipt will be submitted with a future groundwater monitoring report.

## **RESULTS**

### **Hydrogeologic Conditions**

Soils encountered during drilling consisted primarily of clays with organics, layered with sandy clays and fine grained sands to the total depth explored of approximately 12 feet bgs. Groundwater was encountered at approximately 8 to 9 feet bgs, and rose to approximately 2 to 5 feet bgs after drilling.

The well depths and depth to groundwater were measured in the four site monitoring wells on February 8, 2013. The total depths of Wells MW-1 through MW-4 range from 9.75 feet bgs in MW-3 to 18.20 feet bgs in MW-1; the screen intervals and well construction details for Wells MW-1 and MW-2 are unknown. A groundwater contour map showing the calculated groundwater flow direction is presented in Figure 3. These groundwater contours utilize all four wells, although the groundwater levels may not correlate to one another, due to the differences in well depths and construction. In particular, Well MW-1 is approximately 8 feet deeper than Wells MW-3 and MW-4, and approximately 4 feet deeper than Well MW-2. The water level in Well MW-1 is lower than the other three wells, with the result that the groundwater contours appear to converge on Well MW-1. Utilizing all four wells, the flow direction is

generally to the south and southeast at gradients between 0.010 feet/feet to 0.038 ft/ft. The general groundwater flow direction appears to be southerly, if Well MW-1 data is not included.

### **Soil, Groundwater and Soil Gas Analytical Results**

The soil, groundwater and soil gas results were reviewed and compared to the San Francisco Bay Regional Water Quality Control Board (SFB-RWQCB) Environmental Screening Levels (ESLs)<sup>1</sup> as a preliminary risk screen. Concentrations exceeding ESLs may warrant further evaluation, based on site-specific considerations.

### **Soil Analytical Data**

The soil analytical data described below is presented in Table 1, and TPHg, TPHd, and benzene analytical results are summarized on Figure 4.

- TPHg was detected in two soil samples at concentrations of 0.28 milligrams per kilogram (mg/kg) in Boring B-12 at 3 feet and 41 mg/kg in MW-4 at 10 feet.
- TPHd was reported in three soil samples ranging from 5.4 mg/kg in MW-4 at 3 feet to 48 mg/kg in MW-4 at 10 feet.
- Naphthalene was detected in one sample at a concentration of 0.50 mg/kg in MW-4 at 10 feet.
- All reported detections were below ESLs for non-drinking water, commercial property use in shallow and deep soils.

### **Grab-Groundwater Analytical Data**

One grab-groundwater sample was collected from Boring B-12. The grab-groundwater analytical data described below is presented in Table 2.

- TPHg was detected at a concentration of 44 micrograms per liter (µg/L).
- TPHd was detected at a concentration of 440 µg/L in Boring B-12.
- Ethylbenzene and total xylenes were detected in Boring B-12 at concentrations of 0.63 µg/L and 1.9 µg/L, respectively.
- Naphthalene was detected at a concentration of 11 µg/L.
- All reported detections were below ESLs for non-drinking water, commercial property use.

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<sup>1</sup> *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* (November 2007), San Francisco Regional Water Quality Control Board, California EPA, [http://www.waterboards.ca.gov/rwqcb2/water\\_issues/programs/esl.shtml](http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml), Updated February 2013.

### Groundwater Analytical Data

Two groundwater monitoring samples were collected from Wells MW-3 and MW-4. The groundwater analytical data is presented in Table 3. TPHg, TPHd and benzene concentrations from multiple sample dates are summarized on Table 4.

- TPHg was detected in MW-3 only at a concentration of 43 µg/L.
- TPHd was detected at a concentration of 300 µg/L in Well MW-3 and 540 µg/L in Well MW-4.
- Benzene, toluene, ethylbenzene and total xylenes were not detected in Wells MW-3 and MW-4.
- MTBE was detected at 2.1 µg/L in Well MW-4.
- Naphthalene was detected at 4.3 µg/L in Well MW-3 and at 1.3 µg/L in Well MW-4.
- Various PAHs were detected at low concentrations that did not exceed ESLs.
- No ESLs were exceeded.

### Sub-Slab Vapor Analytical Data

The sub-slab vapor analytical data described below is presented in Table 4.

- TPHg was detected in Probe SVP-1 at a concentration of 1,300 µg/m<sup>3</sup>. The duplicate sample for Probe SVP-2 had TPHg reported at a concentration of 450 µg/m<sup>3</sup>, but the laboratory noted that the detection was attributed to a single discrete peak of tetrachloroethene (PCE).
- PCE was detected in Probe SVP-1 at a concentration of 16 µg/m<sup>3</sup> and in Probe SVP-2 at a concentration of 901 µg/m<sup>3</sup>.
- Benzene was detected in Probe SVP-2 at a concentration of 0.03 µg/m<sup>3</sup>.
- Ethylbenzene was detected in Probe SVP-1 at a concentration of 9.6 µg/m<sup>3</sup>.
- Total xylenes were detected in Probe SVP-1 at a concentration of 77 µg/m<sup>3</sup> and in Probe SVP-2 at a concentration of 0.04 µg/m<sup>3</sup>.
- Acetone was detected in Probe SVP-1 at a concentration of 340 µg/m<sup>3</sup> and in Probe SVP-2 at a concentration of 20.4 µg/m<sup>3</sup>.
- Naphthalene was detected in SVP-1 at a concentration of 2.1 µg/m<sup>3</sup>.
- Various other VOCs were detected at very low concentrations, none of which exceeded ESLs. The certified analytical report in Attachment G lists all of the detections.
- All reported detections were below ESLs for attenuated indoor air except for PCE in Probe SVP-2. The attenuated indoor air ESL for PCE is 42 µg/m<sup>3</sup>.

## Data Evaluation and Recommendations

The soil analytical data results indicate complete delineation of soils to non-detectable or low TPHd concentrations. TPHg, benzene, and all other analytes from soil samples were non-detect except for a low detection of naphthalene. The maximum concentrations detected during the two phases of investigation were from the former UST area (Boring B-4), as shown on Figure 4. No further soils assessment is recommended at this time.

The results of the grab-groundwater sample from Boring B-12 and groundwater samples from Wells MW-3 and MW-4 generally delineate the groundwater plume upgradient to the north (MW-4), downgradient to the south (MW-3) and laterally to the east (B-12). Figure 5 summarizes recent groundwater analytical data, combining the sampling events for Wells MW-1 through MW-4, and grab-groundwater sampling of the various borings drilled in May 2012 and December 2012. TPHg in groundwater was at low to non-detectable concentration in all samples collected. In the samples farthest out from the former UST area (MW-2, MW-3, B-12, B-9 and MW-4), TPHd was detected at concentrations less than the ESL of 640 µg/L. Trinity recommends conducting quarterly groundwater monitoring in all four wells through 2013 (three additional events), to determine plume stability. Trinity recommends analyzing TPHg, TPHd, and BTEX for these additional monitoring events.

The sub-slab vapor data indicated only PCE in Probe SVP-2 is present at concentrations above the ESL, utilizing indoor air ESLs attenuated by 0.05, as specified by the California Department of Toxic Substances Control (DTSC). Reviewing the two data sets for these probes, Trinity concludes that the potential vapor intrusion threat is low, considering the building use as a truck maintenance facility. The building is well-ventilated, and the roll-up doors on opposite ends of the building generally remain open while the building is occupied. Further sub-slab vapor assessment is not recommended at this time.

This site should be considered for low-threat closure, if the groundwater monitoring results demonstrate a stable or shrinking plume.

Should you have any questions regarding this letter, please call Trinity at (831) 426-5600.

Sincerely,

**TRINITY SOURCE GROUP, INC.**

Information, conclusions, and recommendations made by Trinity in this document regarding this site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Debra J. Moser, PG, CEG, CHG  
Senior Geologist

Cora E. Olson  
Senior Staff Engineer

Attachments:

- Table 1: Soil Analytical Data
- Table 2: Grab-Groundwater Analytical Data
- Table 3: Groundwater Analytical Data
- Table 4: Sub-Slab Vapor Analytical Data
  
- Figure 1: Site Location Map
- Figure 2: Soil Boring, Sub-Slab Vapor Probe and Monitoring Well Location Map
- Figure 3: Groundwater Elevation Contour Map, February 8, 2013
- Figure 4: Soil Analytical Data Map
- Figure 5: Groundwater Analytical Data Summary Map, Various Dates
  
- Attachment A: Regulatory Correspondence
- Attachment B: Permits
- Attachment C: Field Procedures
- Attachment D: Boring Logs and Well Completion Reports
- Attachment E: Field Data Sheets
- Attachment F: Survey Data
- Attachment G: Certified Analytical Reports, Chain of Custody and Geotracker Upload Confirmation
- Attachment H: Waste Disposal Documentation

## **DISTRIBUTION**

A copy of this report has been forwarded to:

Mr. Mike Rogers  
ABF Freight System, Inc.  
3801 Old Greenwood Road  
Fort Smith, AR 72903

Leroy Griffin  
Oakland Fire Department  
250 Frank H. Ogawa Plaza, Ste. 3341  
Oakland, CA 94612-2032  
(sent via email to [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com))

# **TABLES**

**Table 1  
Soil Analytical Data**

ABF Freight System Facility  
4575 Tidewater Avenue  
Oakland, California

Sample ID#	Sample Date	Sample Depth (ft)	TPHg (mg/kg)	Diesel Range Organics*			Total TPHd (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (Total) (mg/kg)	Naphthalene (mg/kg)	Other VOCs (mg/kg)	PAHs (mg/kg)
				C10-C22 (mg/kg)	C22-C32 (mg/kg)	C32-C40 (mg/kg)								
<b>Soil Borings - May 2012</b>														
B-1	5/22/2012	4	<0.60	5.6 <sup>d</sup>	<4.8	<4.8	5.6	<0.0060	<0.030	<0.0060	<0.018	<0.030	ND	NA
B-1	5/22/2012	14	<0.93	15	13	<7.4	28	<0.0093	<0.046	<0.0093	<0.028	<0.046	ND	NA
B-2	5/21/2012	5	<0.60	11 <sup>c,d</sup>	5.1 <sup>e</sup>	<4.8	16.1	<0.0060	<0.030	<0.0060	<0.018	<0.030	ND	NA
B-2	5/21/2012	15	<1.0	14 <sup>d</sup>	14 <sup>e</sup>	<8.1	28	<0.010	<0.050	<0.010	<0.030	<0.050	ND	NA
B-3	5/22/2012	9	6.0	71	14	2.2 <sup>a</sup>	87.2	<0.0059	<0.030	<0.0059	<0.018	<0.030	n-Propylbenzene = 0.0022 <sup>a</sup>	NA
B-3	5/22/2012	15	<0.99	4.2 <sup>a</sup>	<8.0	<8.0	4.2	<0.0099	0.0034 <sup>a</sup>	<0.0099	<0.030	<0.050	ND	NA
B-3	5/22/2012	19	<0.84	3.0 <sup>a</sup>	<6.7	<6.7	3.0	<0.0084	<0.042	<0.0084	<0.025	<0.042	ND	NA
B-4	5/21/2012	4	<0.62	180	340	140	660	<0.0062	<0.031	<0.0062	<0.018	<0.031	ND	NA
B-4	5/21/2012	12	<0.72	23 <sup>d</sup>	2.4 <sup>a</sup>	<5.8	25.4	<0.0072	<0.036	0.017	0.0034 <sup>a</sup>	0.0052 <sup>a</sup>	Isopropylbenzene = 0.0024 <sup>a</sup>	NA
B-4	5/21/2012	15	<1.0	16 <sup>d</sup>	14 <sup>e</sup>	<8.0	30	<0.010	<0.050	<0.010	<0.030	0.0076 <sup>a</sup>	n-Propylbenzene = 0.0034 <sup>a</sup>	NA
B-4	5/21/2012	25	<0.60	3.0 <sup>a</sup>	<4.8	<4.8	3.0	<0.0060	<0.030	<0.0060	<0.018	<0.030	ND	NA
B-5	5/21/2012	10	<0.94	4.1 <sup>a</sup>	<7.5	3.7 <sup>a</sup>	7.8	<0.0094	<0.047	<0.0094	<0.028	<0.047	ND	NA
B-6	5/21/2012	9	<3.6	<5.8 <sup>af</sup>	<5.8 <sup>f</sup>	<5.8 <sup>f</sup>	<5.8	<0.0073	<0.036	<0.0073	<0.022	<0.036 (EPA Method 8270C) 0.0079 (EPA Method 8260B)	ND	Benzo(a)anthracene = 0.0022, Benzo (a) pyrene = 0.0012, Fluoranthene = 0.0030, Fluorene = 0.0013, Phenanthrene = 0.0033, Pyrene = 0.0032, 1-Methylnaphthalene = 0.0026, 2-Methylnaphthalene = 0.0035 "a" note on all of the above
B-6	5/21/2012	17	<4.6	2.8 <sup>f</sup>	<7.4 <sup>f</sup>	<7.4 <sup>f</sup>	2.8	<0.0092	<0.046	<0.0092	<0.028	<0.046 (EPA Method 8270C) 0.0040 (EPA Method 8260B)	ND	Anthracene = 0.0017, Phenanthrene = 0.0044, Pyrene = 0.0020, 2-Methylnaphthalene = 0.0024 "a" note on all of the above

**Table 1  
Soil Analytical Data**

ABF Freight System Facility  
4575 Tidewater Avenue  
Oakland, California

Sample ID#	Sample Date	Sample Depth (ft)	TPHg (mg/kg)	Diesel Range Organics*			Total TPHd (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (Total) (mg/kg)	Naphthalene (mg/kg)	Other VOCs (mg/kg)	PAHs (mg/kg)																																																							
				C10-C22 (mg/kg)	C22-C32 (mg/kg)	C32-C40 (mg/kg)																																																															
B-7	5/21/2012	12	<0.66	5.5	<5.2	<5.2	5.5	<0.0066	<0.033	<0.0066	<0.020	<0.033	2-Butanone = 0.025 <sup>a</sup> , tert-Butyl alcohol = 0.094	NA																																																							
B-7	5/21/2012	15	<0.99	10 <sup>d</sup>	<7.9	<7.9	10	<0.0099	<0.050	<0.0099	<0.030	<0.050		NA																																																							
B-8	5/21/2012	10	<0.85	5.3 <sup>a</sup>	<6.8	<6.8	5.3	<0.0085	<0.042	<0.0085	<0.026	<0.042	ND	NA																																																							
B-8	5/21/2012	15	<0.96	6.9 <sup>a,d</sup>	4.0 <sup>a</sup>	<7.7	10.9	<0.0096	<0.048	<0.0096	<0.029	<0.048	ND	NA																																																							
B-9	5/22/2012	7	<0.74	25	6.4	<5.9	31.4	<0.0074	<0.037	<0.0074	<0.022	<0.037	2-Butanone = 0.034 <sup>a</sup>	NA																																																							
B-9	5/22/2012	15	<0.98	2.5 <sup>a</sup>	<7.8	<7.8	2.5	<0.0098	0.0041 <sup>a</sup>	<0.0098	0.010 <sup>a</sup>	<0.049	ND	NA																																																							
B-10	5/21/2012	4	<0.60	11 <sup>d</sup>	3.3 <sup>a</sup>	<4.8	14.3	<0.0060	<0.030	<0.0060	<0.018	<0.030	ND	NA																																																							
B-10	5/21/2012	15	<0.92	4.8 <sup>a</sup>	<7.3	<7.3	4.8	<0.0092	<0.046	<0.0092	<0.027	<0.046	2-Butanone = 0.033 <sup>a</sup>	NA																																																							
B-11	5/22/2012	8	<0.68	3.3 <sup>a</sup>	<5.5	<5.5	3.3	<0.0068	<0.034	<0.0068	<0.020	<0.034	ND	NA																																																							
B-11	5/22/2012	15	<0.96	5.4 <sup>a</sup>	<7.7	<7.7	5.4	<0.0096	<0.048	<0.0096	<0.29	<0.048	ND	NA																																																							
<b>Soil Boring and Monitoring Well Installation - December 2012</b>																																																																					
B-12	12/17/2012	3	0.28 <sup>a</sup>	<23 <sup>f</sup>	NA	NA	<23 <sup>f</sup>	<0.0058	<0.029	<0.0058	<0.017	<0.029	ND**	NA																																																							
B-12	12/17/2012	6	<0.69	<1,100 <sup>f</sup>	NA	NA	<1,100 <sup>f</sup>	<0.0069	<0.034	<0.0069	<0.021	<0.034	ND**	NA																																																							
MW-3	12/17/2012	3	<0.59	<24 <sup>f</sup>	NA	NA	<24 <sup>f</sup>	<0.0059	<0.030	<0.0059	<0.018	<0.030	ND**	NA																																																							
MW-3	12/17/2012	7	<0.62	8.1	NA	NA	8.1	<0.0062	<0.031	<0.0062	<0.019	<0.031	ND**	NA																																																							
MW-4	12/17/2012	3	<0.58	5.4 <sup>a</sup>	NA	NA	5.4 <sup>a</sup>	<0.0058	<0.029	<0.0058	<0.018	<0.029	ND**	NA																																																							
MW-4	12/17/2012	10	41	48	NA	NA	48	<0.13	<0.65	<0.13	<0.39	0.50 <sup>a</sup>	ND**	NA																																																							
SFRWQCB ESLs (mg/kg) Non Drinking Water Source Commercial Property Use - Shallow Soils																																																																					
420				500											1.2											9.3											4.7											11											4.8										
SFRWQCB ESLs (mg/kg) Non Drinking Water Source Commercial Property Use - Deep Soils																																																																					
420				530											1.2											9.3											4.7											11											4.8										

**Table 1  
Soil Analytical Data**

ABF Freight System Facility  
4575 Tidewater Avenue  
Oakland, California

Sample ID#	Sample Date	Sample Depth (ft)	TPHg (mg/kg)	Diesel Range Organics*			Total TPHd (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (Total) (mg/kg)	Naphthalene (mg/kg)	Other VOCs (mg/kg)	PAHs (mg/kg)
------------	-------------	-------------------	--------------	------------------------	--	--	--------------------	-----------------	-----------------	-----------------------	-------------------------	---------------------	--------------------	--------------

Notes:

\* = Silica gel cleanup was completed on diesel-range organics analysis  
 \*\* = Additional VOCs analyzed included MTBE, di-isopropyl ether, ethanol, ethyl tert-butyl ether, tert-butyl alcohol, tert-amyl methyl ether, 1,2-dibromoethane and 1,2-dichloroethane  
 MTBE = Methyl Tertiary-Butyl Ether  
 TPH = Total Petroleum Hydrocarbons  
 Elev. = elevation  
 ft = feet  
 < = less than indicated detection level  
 mg/kg = milligrams per kilogram  
 ND = Not Detected  
 NA = Not Analyzed  
 TPHg = Total Petroleum Hydrocarbons - Gasoline  
 TPHd = Total Petroleum Hydrocarbons - Diesel  
 VOC = Volatile Organic Compound  
 PAH = Poly-Aromatic Hydrocarbons  
 a = The lab noted, estimated value below the lower calibration point. Confidence correlates with concentration.  
 b = The lab noted, surrogate recovery limits have been exceeded; values are outside lower control limits.  
 c = The lab noted, the sample matrix interfered with the ability to make any accurate determination; spike value is low.  
 d = The lab noted, this sample has responded in the Diesel range, however it does not appear to be hydrocarbon product.  
 e = The lab noted, this sample has responded in the Oil range, however it does not appear to be a hydrocarbon product.  
 f = The lab noted, sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.  
 ESL = Environmental Screening Level  
 SFBRWQCB = San Francisco Bay Regional Water Quality Control Board, California EPA, [http://www.waterboards.ca.gov/rwqcb2/water\\_issues/programs/esl.shtml](http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml) (February 2013)

**Table 2**  
**Grab-Groundwater Analytical Data**

ABF Freight System Facility  
4575 Tidewater Avenue  
Oakland, California

Sample ID#	Sample Date	TPHg (µg/L)	Diesel Range Organics*			Total TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (Total) (µg/L)	MTBE	Naphthalene (µg/L)	Other VOCs (µg/L)
			C10-C22 (µg/L)	C22-C32 (µg/L)	C32-C40 (µg/L)								
B-2	5/21/2012	<100	76	<100	<100	76	<1.0	<5.0	<1.0	<3.0	<1.0	<5.0	ND
B-3	5/22/2012	490	1,000	71 <sup>a</sup>	60 <sup>a</sup>	1,131	0.99 <sup>a</sup>	<5.0	<1.0	<3.0	<1.0	13	Acetone = 24, n-Butylbenzene = 3.7, sec-Butylbenzene = 1.3, tert-Butylbenzene = 5.4, Carbon disulfide = 0.36, n-Propylbenzene = 6.0
B-4	5/21/2012	230	600	<100	<100	600	0.97	0.31 <sup>a</sup>	0.51	<3.0	<1.0	7.6	n-Butylbenzene = 0.48, sec-Butylbenzene = 0.35, tert-Butylbenzene = 1.1, n - Propylbenzene = 2.2, 1,2,4-Trimethylbenzene = 0.61
B-6	5/21/2012	<100	140	<100	<100	140	<1.0	<5.0	<1.0	<3.0	<1.0	<5.0	ND
B-8	5/21/2012	120	1400	100	<100	1,500	<1.0	<5.0	<1.0	<3.0	3.1	1.6	Acetone = 29, sec-Butylbenzene = 0.73 tert-Butylbenzene = 0.82
B-9	5/22/2012	<100	180 <sup>b</sup>	<100	<100	180	<1.0	<5.0	<1.0	<3.0	<1.0	<5.0	Acetone = 30
B-10	5/22/2012	59 <sup>a</sup>	2,300 <sup>b</sup>	100	<100	2,400	<1.0	<5.0	<1.0	<3.0	<1.0	<5.0	tert-Butylbenzene = 1.0, n-Propylbenzene = 0.42
B-11	5/22/2012	<100	660 <sup>b</sup>	<100	<100	660	<1.0	<5.0	<1.0	<3.0	<1.0	<5.0	ND
B-12	12/17/2012	44 <sup>a</sup>	440	NA	NA	440	<1.0	<5.0	0.63 <sup>a</sup>	1.9 <sup>a</sup>	<1.0	11	ND**

SFRWQCB ESLs (µg/L) Non Drinking Water Source Commercial Property Use												
640	640	46	130	43	100	1,800	24					

Notes:

\* = Silica gel cleanup was completed on diesel-range organics analysis  
 \*\* = Additional VOCs analyzed included MTBE, di-isopropyl ether, ethanol, ethyl tert-butyl ether, tert-butyl alcohol, tert-amyl methyl ether, 1,2-dibromoethane and 1,2-dichloroethane  
 < = less than indicated reported detection limit  
 µg/L = micrograms per Liter (µg/L), also equivalent to parts per billion (ppb)  
 ND = Not Detected  
 NA = Not Analyzed  
 TPHg = Total Petroleum Hydrocarbons - Gasoline  
 TPHd = Total Petroleum Hydrocarbons - Diesel  
 MTBE = Methyl Tertiary-Butyl Ether  
 VOCs = Volatile Organic Compounds  
 a = Estimated value below the lowest calibration point. Confidence correlates with concentration  
 b = This sample has responded in the Diesel range, however it does not appear to be a hydrocarbon product  
 ESL = Environmental Screening Level  
 SFRWQCB = San Francisco Bay Regional Water Quality Control Board, California EPA, [http://www.waterboards.ca.gov/rwqcb2/water\\_issues/programs/esl.shtml](http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml) (February 2013)

**Table 3  
Groundwater Analytical Data**

ABF Freight System, Inc.  
4575 Tidewater Avenue  
Oakland, California

Sample ID	Sample Date	TOC Well Elevation (feet, MSL)	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	EPA Method													
					1664A	8015D/G	3511/80				Volatile Organics: 8260B							
					TPH Oil & Grease (µg/L)	TPHg (µg/L)	TPHd without silica gel cleanup (µg/L)	TPHmo without silica gel cleanup (µg/L)	TPHd with silica gel cleanup (µg/L)	TPHmo with silica gel cleanup (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Naphthalene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)	Other Detections	
MW-1	9/15/1986 <sup>a</sup>	NA	NA	NA	NA	4,520	NA	NA	NA	NA	NA	NA	1,590	NA	NA	12	1,000	
	10/17/11	11.12	4.56	6.56	<1,300	660	6,680	110	4,520	33	8.4	11	0.93	56	1.1	3.3	A	
	2/8/13	11.12	4.22	6.90	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
MW-2	9/15/1986 <sup>a</sup>	NA	NA	NA	NA	<50	NA	NA	NA	NA	NA	9	NA	NA	<1	<1		
	10/17/11	11.17	3.87	7.30	1,700	<40	730	64	600	69	11	<0.10	<0.11	1.0	<0.15	<0.50	none	
	2/8/13	11.17	3.67	7.50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
MW-3	1/7/13	10.96	3.68	7.28	<10,000	43	NA	NA	300	NA	NA	<1.0	<1.0	NA	<5.0	<3.0	none	
	2/8/13	10.96	3.98	6.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
MW-4	1/7/13	11.60	3.91	7.69	<10,000	<100	NA	NA	540	NA	NA	<1.0	<1.0	NA	<5.0	<3.0	MTBE = 2.1	
	2/8/13	11.60	3.31	8.29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
ESL					640	500	640	640	640	640	1,500	46	43	24	130	100		
(Industrial Land Use, Non-Drinking Water Source)																		

Sample ID	Sample Date	Depth to Groundwater (ft)	Polynuclear Aromatic Hydrocarbons - EPA METHOD 8270C												Other Detections
			Acenaphthene (µg/L)	Acenaphthylene (µg/L)	Benzo (a) anthracene (µg/L)	Anthracene (µg/L)	Fluoranthene (µg/L)	Fluorene (µg/L)	Naphthalene (µg/L)	1-Methyl naphthalene (µg/L)	2-Methyl naphthalene (µg/L)	Phenanthrene (µg/L)	Pyrene (µg/L)		
MW-1	10/17/11	4.56	0.69	0.20	ND	0.056	0.049	1.5	31	13	13	0.29	0.041	none	
MW-2	10/17/11	3.87	0.097	<0.011	ND	<0.013	<0.016	0.022	0.57	0.096	0.088	<0.018	0.021	none	
MW-3	1/7/13	3.68	0.18	<0.25	0.092	<0.25	<0.25	0.32	4.3	2.2	1.2	0.12	<0.25	none	
MW-4	1/7/13	3.91	0.37	<0.25	0.095	<0.25	<0.25	0.26	1.2	2.1	0.76	0.098	<0.25	none	
ESL			23	30	0.027	0.73	8.0	3.9	24	NLE	2.1	4.6	2.0		
(Industrial Land Use, Non-Drinking Water Source)															

**Table 3  
Groundwater Analytical Data**

ABF Freight System, Inc.  
4575 Tidewater Avenue  
Oakland, California

Sample ID	Sample Date	TOC Well Elevation (feet, MSL)	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	EPA Method											
					1664A	8015D/G	3511/80			Volatile Organics: 8260B						
					TPH Oil & Grease (µg/L)	TPHg (µg/L)	TPHd without silica gel cleanup (µg/L)	TPHmo without silica gel cleanup (µg/L)	TPHd with silica gel cleanup (µg/L)	TPHmo with silica gel cleanup (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Naphthalene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)

Notes:

Note: Please reference lab report for all qualifiers and notes.

ID = Identification

TOC = top of casing

MSL = mean sea level

EPA = Environmental Protection Agency

TPHg = Total Petroleum Hydrocarbons, gasoline-range organics

TPHd = Total Petroleum Hydrocarbons, diesel-range organics (sum of C10-C22 and C22-C32 hydrocarbons)

TPHmo = Total Petroleum Hydrocarbons, motor-oil range organics (C32-C40 hydrocarbons)

MTBE = methyl-tert-butyl-ether

ESL = Environmental Screening Level (ESL) listed in *Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater* (November 2007), San Francisco Bay Regional Water Quality Control Board, California EPA, [http://www.waterboards.ca.gov/rwqcb2/water\\_issues/programs/esl.shtml](http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml), updated February 2013

MW = Monitoring Well

µg/L micrograms per liter (equivalent to parts per billion)

< = not detected at above detection limit

MDL = Minimum detection limit

TPH = Total petroleum hydrocarbons

A = The following analytes were detected above MDL: n-Butylbenzene 2.6 µg/L, sec-Butylbenzene 1.9 µg/L, tert-Butylbenzene 14 µg/L, n-Hexane 7.9 µg/L, Isopropylbenzene 11 µg/L, n-Propylbenzene 21 µg/L, and 1,2,3-trimethylbenzene 1.2 µg/L

NLE = No level established

a = Data reported in Weston report dated February 25, 1987; analysis by EPA Methods 5020/8015/8020; Weston report listed "Motor Fuel" analysis which Trinity is reporting under TPHg

b = Estimated value below the lowest calibration point. Confidence correlates with concentration.

c = The sample matrix interfered with the ability to make any accurate determination; spike value is high

**Table 4**  
**Sub-Slab Vapor Analytical Data**

ABF Freight System Facility  
4575 Tidewater Avenue  
Oakland, California

Sample ID	Sample Date	Analytical Test Methods																		
		ASTM D-1946				EPA TO-15													EPA TO-17	
		Carbon Dioxide (%)	Methane (%)	Oxygen (%)	Helium (%)	PCE (µg/m <sup>3</sup> )	1,1,2-TCA (µg/m <sup>3</sup> )	1,2,4 - TMB (µg/m <sup>3</sup> )	TPHg (µg/m <sup>3</sup> )	Benzene (µg/m <sup>3</sup> )	Toluene (µg/m <sup>3</sup> )	Ethyl Benzene (µg/m <sup>3</sup> )	Ethyl Acetate (µg/m <sup>3</sup> )	Total Xylenes (µg/m <sup>3</sup> )	Ethanol (µg/m <sup>3</sup> )	Other VOCs (µg/m <sup>3</sup> )	Naphthalene (µg/m <sup>3</sup> )	TPHd (µg/m <sup>3</sup> )		
SVP-1	6/20/2012	2.2	<0.0001	16	0.049	<b>60</b>	<11	<10	<1,800	<2.8	<7.7	<8.8	<b>20</b>	<27	<b>180</b>	ND	<2.0			
SVP-1	12/17/2012				8.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		<0.6	<125		
SVP-1	1/17/2013	0.8	<0.0002	20	0.23	<b>16</b>	<11	<10	<b>1,300</b>	<6.5	<7.7	<b>9.6</b>	<b>33</b>	<b>77</b>	<b>290</b>	<b>Acetone, 340</b>	<b>2.0</b>			
SVP-2	6/20/2012	0.22	0.00018	18	<0.005	<b>530</b>	<b>38</b>	<b>13</b>	<b>1,900</b>	<b>2.9</b>	<b>11</b>	<b>20</b>	<b>19</b>	<b>160</b>	<b>100</b>	<b>Acetone, 230</b>	<b>3.4</b>			
SVP-2	12/17/2012				1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		<0.6	<125		
SVP-2	1/17/2013				40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
SVP-2	2/5/2013	1.21	<0.0009	17.1	NA	<b>901</b>	<0.03	<b>0.02</b>	NA	<b>0.03</b>	<b>0.02</b>	<0.02	<0.02	<b>0.04</b>	NA	<b>Acetone, 20.4</b> <b>1,1-DFE, 12.5 (leak check)</b> <b>Others as listed on Certified Analytical Report</b>				
SVP-2 (QC Sample)	2/5/2013	1.22	<0.001	17.3	NA	<b>971</b>	<0.03	<b>0.064</b>	<b>450*</b>	<b>0.15</b>	<b>0.21</b>	<0.02	<0.02	<b>0</b>	<b>NA</b>	<b>Acetone, 67.1</b> <b>1,1-DFE, 426 (leak check)</b> <b>Others as listed on Certified Analytical Report</b>				

ESLs for Commercial Indoor Air	2.1	0.77	NA	3,100	0.42	1,300	4.9	NA	440	NA	NA	0.36
Attenuated Commercial Indoor Air <sup>2</sup>	42	15.4	NA	62,000	8.4	26,000	98	NA	8800	NA	NA	7.2

Notes:

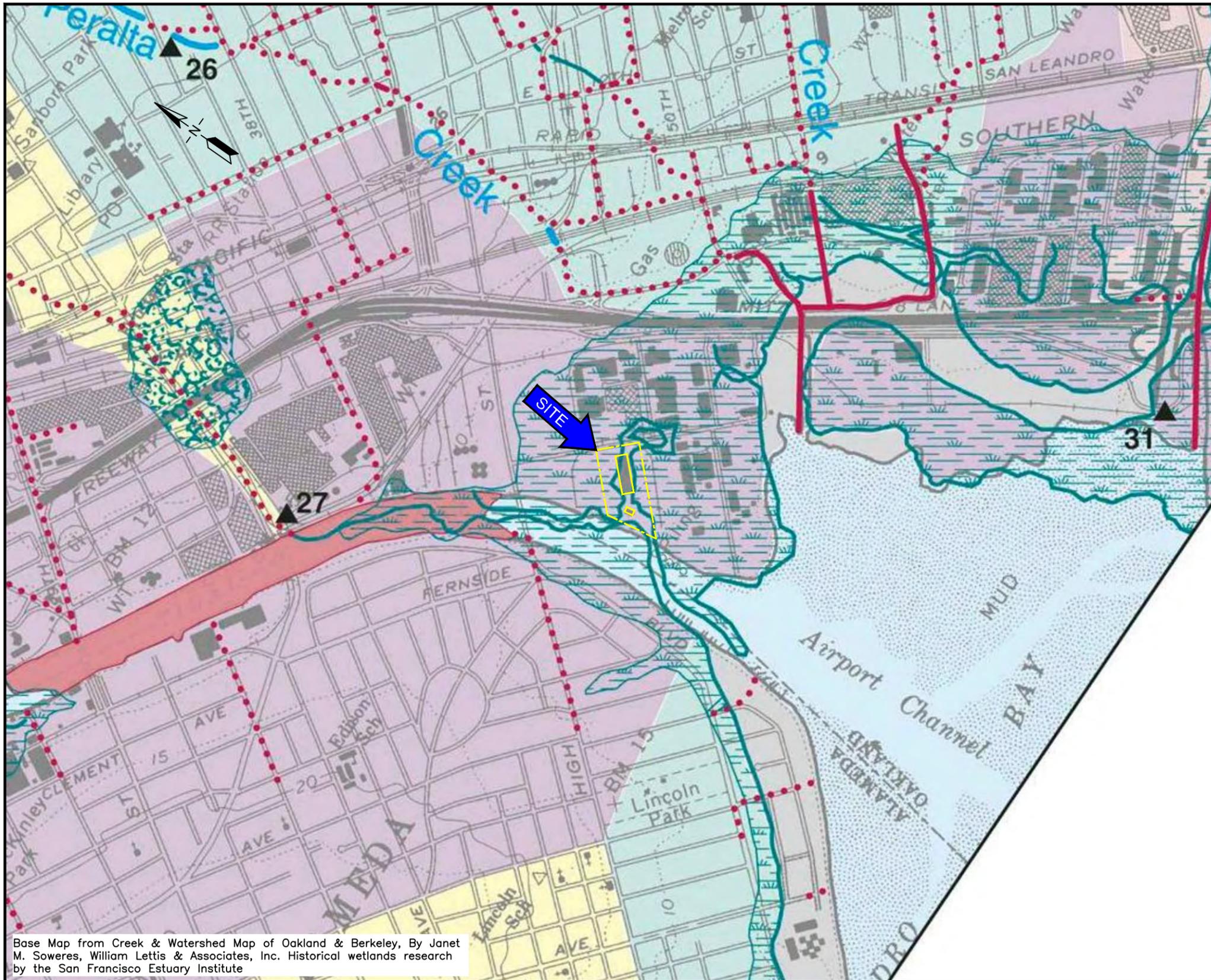
ID = Identification
% = Percentage
µg/m <sup>3</sup> = micrograms per meter cubed
PCE = Tetrachloroethene
2 - TCA = 1,1,2 - Trichloroethane
4 - TMB = 1,2,4 - Trimethylbenzene
TPHg = Total Petroleum Hydrocarbons as Gasoline
1,1-DFE = 1,1-Difluoroethane
ASTM = American Society for Testing Materials

**Table 4**  
**Sub-Slab Vapor Analytical Data**

ABF Freight System Facility  
4575 Tidewater Avenue  
Oakland, California

< = Not detected at or above detection limit  
ND = Not detected  
NA = Not applicable  
**Bold** = data detected above laboratory detection limits  
\* Duplicate sampled was analyzed for TPHg; result of 450 ( $\mu\text{g}/\text{m}^3$ ) was attributed to single discrete peak (PCE).  
ESLs = Environmental Screening Levels (February 2013)  
RWQCB = San Francisco Bay Regional Water Quality Control Board, California EPA  
[http://www.waterboards.ca.gov/rwqcb2/water\\_issues/programs/esl.shtml](http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml) (February 2013)  
a= Attenuation factor for existing commercial building sub-slab from the DTSC-CEPA Vapor Intrusion Guidance (2011) is 0.05

# FIGURES



- ### EXPLANATION
- Creeks
  - Former creeks, buried or drained, and Bay shoreline, circa 1850
  - Underground culverts and storm drains
  - Engineered channels
  - Willow groves, circa 1850
  - Beach, circa 1850
  - Tidal marsh, circa 1850
  - now water
  - now fill land
  - Bay
  - Bay, circa 1850, now fill land
  - Artificial bodies of water
  - Present watersheds

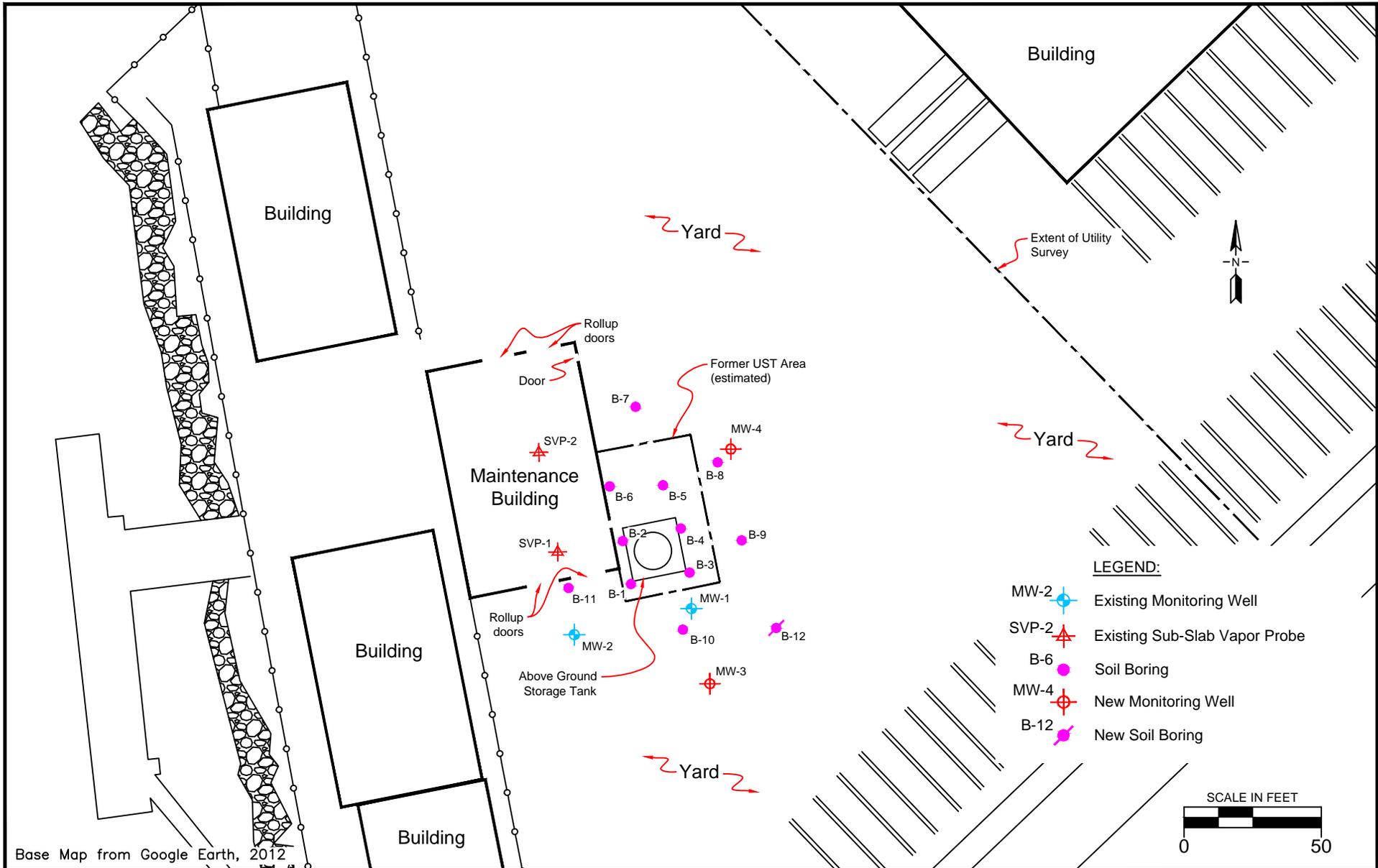


Base Map from Creek & Watershed Map of Oakland & Berkeley, By Janet M. Sowers, William Lettis & Associates, Inc. Historical wetlands research by the San Francisco Estuary Institute

PREPARED BY  
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 500 Chestnut Street, Suite 225  
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 v: 831.426.5600  
 f: 831.426.5602

**SITE LOCATION MAP**  
 ABF Freight System Facility  
 4575 Tidewater Ave.  
 Oakland, California

PROJECT:  
 154.004.008  
 FIGURE:  
 1



Base Map from Google Earth, 2012

PREPARED BY



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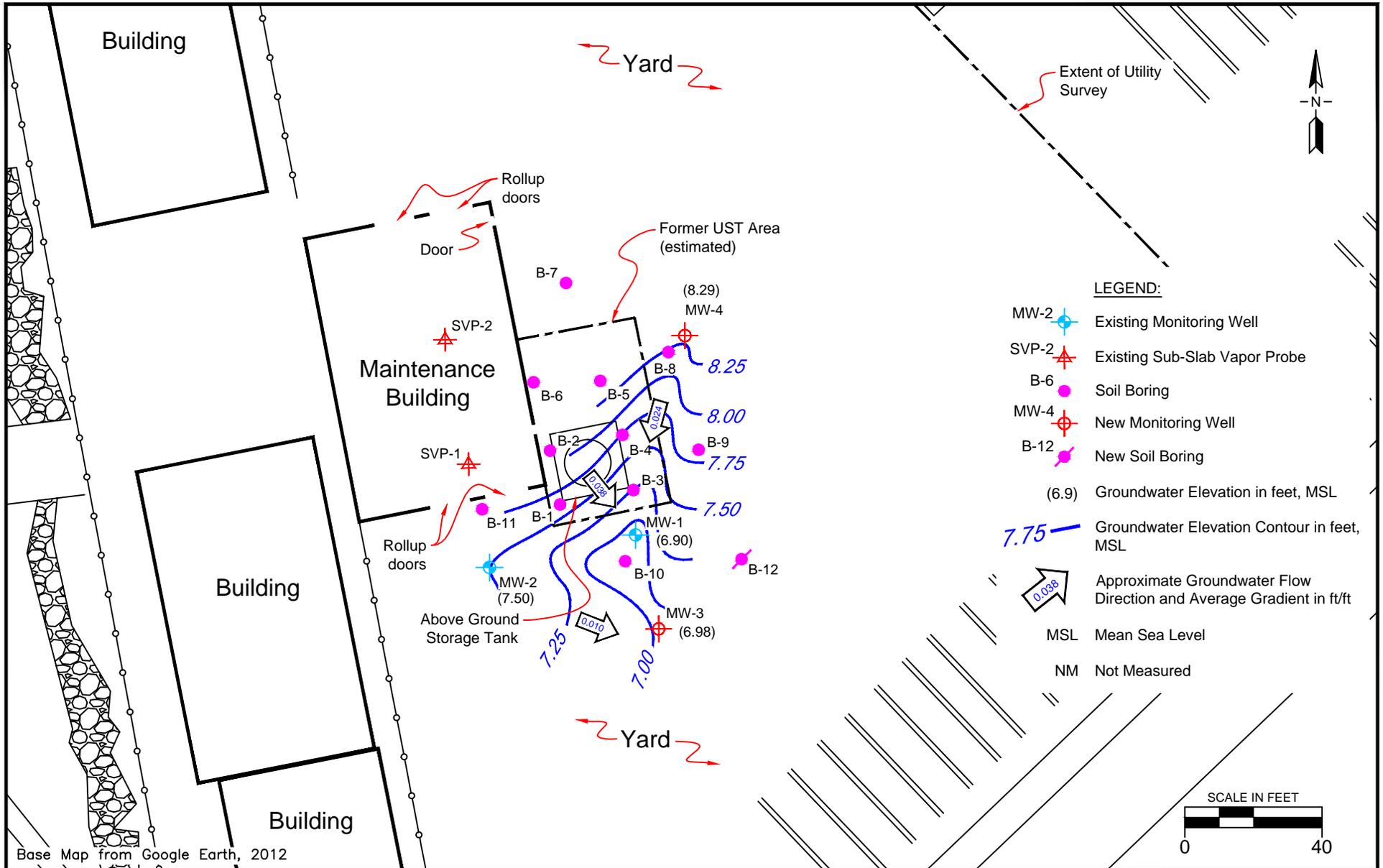
500 Chestnut Street, Suite 225  
Santa Cruz, California 95060  
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**SOIL BORING, SUB-SLAB VAPOR PROBE AND MONITORING WELL  
LOCATION MAP**

ABF Freight System Facility  
4575 Tidewater Avenue  
Oakland, California

PROJECT:  
154.004.008

FIGURE:  
2



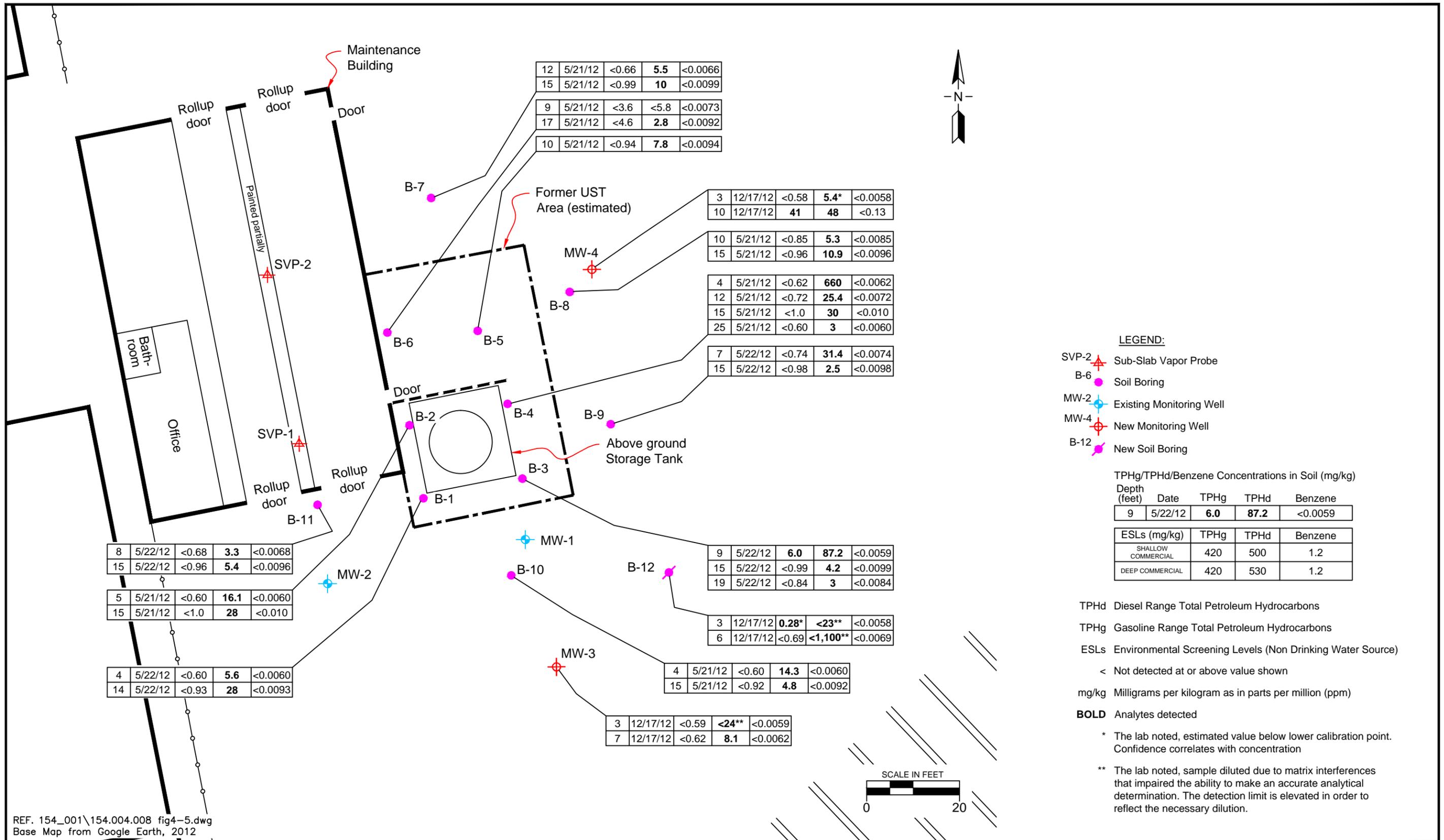
PREPARED BY  
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**GROUNDWATER ELEVATION CONTOUR MAP,  
 FEBRUARY 8, 2013**

ABF Freight System Facility  
 4575 Tidewater Avenue  
 Oakland, California

PROJECT:  
 154.004.008

FIGURE:  
 3



12	5/21/12	<0.66	<b>5.5</b>	<0.0066
15	5/21/12	<0.99	<b>10</b>	<0.0099
9	5/21/12	<3.6	<5.8	<0.0073
17	5/21/12	<4.6	<b>2.8</b>	<0.0092
10	5/21/12	<0.94	<b>7.8</b>	<0.0094

3	12/17/12	<0.58	<b>5.4*</b>	<0.0058
10	12/17/12	<b>41</b>	<b>48</b>	<0.13

10	5/21/12	<0.85	<b>5.3</b>	<0.0085
15	5/21/12	<0.96	<b>10.9</b>	<0.0096

4	5/21/12	<0.62	<b>660</b>	<0.0062
12	5/21/12	<0.72	<b>25.4</b>	<0.0072
15	5/21/12	<1.0	<b>30</b>	<0.010
25	5/21/12	<0.60	<b>3</b>	<0.0060

7	5/22/12	<0.74	<b>31.4</b>	<0.0074
15	5/22/12	<0.98	<b>2.5</b>	<0.0098

8	5/22/12	<0.68	<b>3.3</b>	<0.0068
15	5/22/12	<0.96	<b>5.4</b>	<0.0096

5	5/21/12	<0.60	<b>16.1</b>	<0.0060
15	5/21/12	<1.0	<b>28</b>	<0.010

4	5/22/12	<0.60	<b>5.6</b>	<0.0060
14	5/22/12	<0.93	<b>28</b>	<0.0093

9	5/22/12	<b>6.0</b>	<b>87.2</b>	<0.0059
15	5/22/12	<0.99	<b>4.2</b>	<0.0099
19	5/22/12	<0.84	<b>3</b>	<0.0084

3	12/17/12	<b>0.28*</b>	<b>&lt;23**</b>	<0.0058
6	12/17/12	<0.69	<b>&lt;1,100**</b>	<0.0069

4	5/21/12	<0.60	<b>14.3</b>	<0.0060
15	5/21/12	<0.92	<b>4.8</b>	<0.0092

3	12/17/12	<0.59	<b>&lt;24**</b>	<0.0059
7	12/17/12	<0.62	<b>8.1</b>	<0.0062

**LEGEND:**  
 SVP-2 Sub-Slab Vapor Probe  
 B-6 Soil Boring  
 MW-2 Existing Monitoring Well  
 MW-4 New Monitoring Well  
 B-12 New Soil Boring

TPHg/TPHd/Benzene Concentrations in Soil (mg/kg)

Depth (feet)	Date	TPHg	TPHd	Benzene
9	5/22/12	<b>6.0</b>	<b>87.2</b>	<0.0059

ESLs (mg/kg)	TPHg	TPHd	Benzene
SHALLOW COMMERCIAL	420	500	1.2
DEEP COMMERCIAL	420	530	1.2

TPHd Diesel Range Total Petroleum Hydrocarbons  
 TPHg Gasoline Range Total Petroleum Hydrocarbons  
 ESLs Environmental Screening Levels (Non Drinking Water Source)  
 < Not detected at or above value shown  
 mg/kg Milligrams per kilogram as in parts per million (ppm)  
**BOLD** Analytes detected

\* The lab noted, estimated value below lower calibration point. Confidence correlates with concentration  
 \*\* The lab noted, sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

REF. 154\_001\154.004.008 fig4-5.dwg  
 Base Map from Google Earth, 2012

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**TRINITY**  
 source group, inc.  
 Environmental Consultants

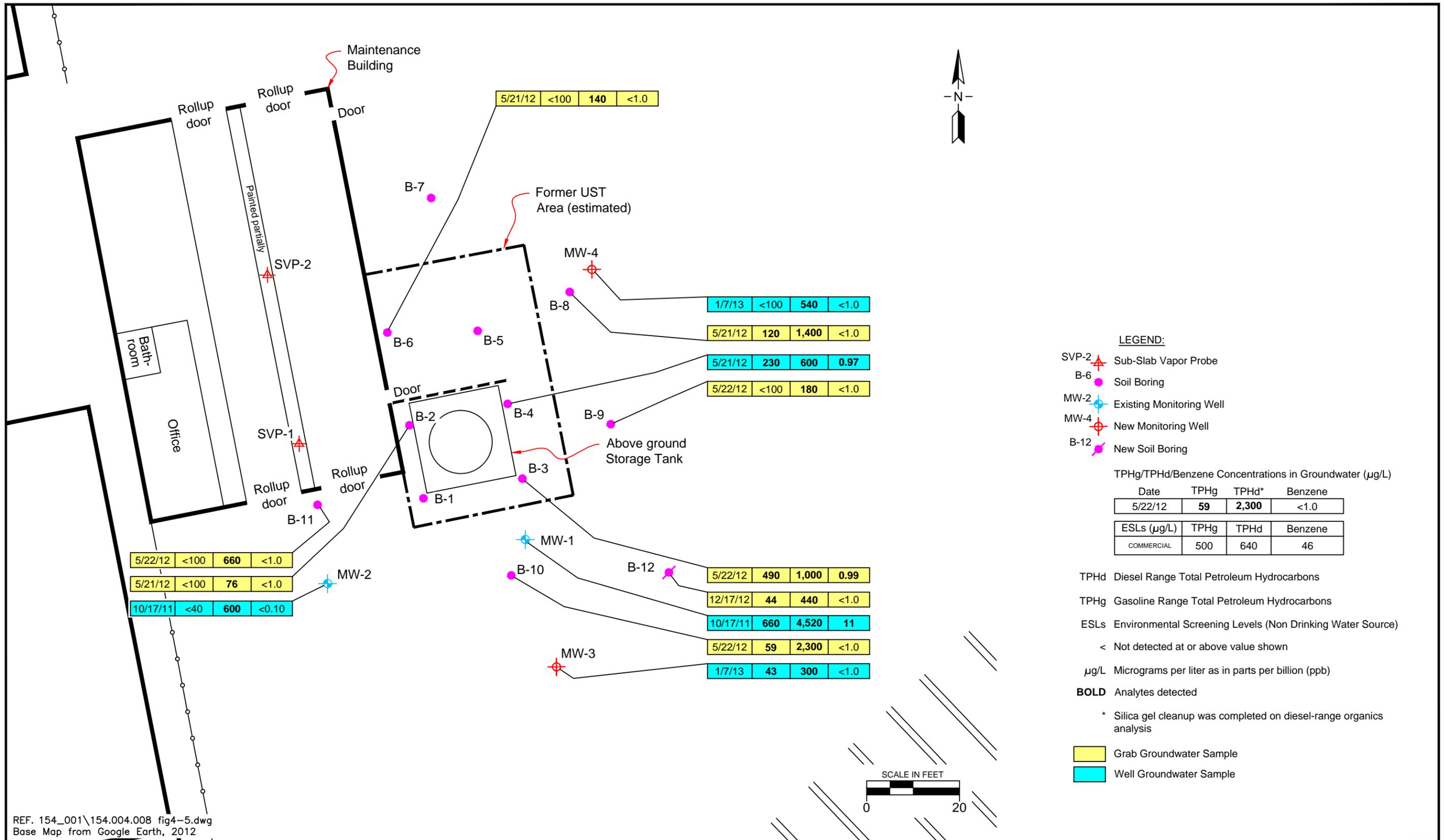
500 Chestnut Street, Suite 225  
 Santa Cruz, California 95060  
 v: 831.426.5600  
 f: 831.426.5602

**SOIL ANALYTICAL DATA MAP**

ABF Freight System Facility  
 4575 Tidewater Avenue  
 Oakland, California

PROJECT:  
 154.004.008

FIGURE:  
 4



**LEGEND:**

- SVP-2 Sub-Slab Vapor Probe
- B-6 Soil Boring
- MW-2 Existing Monitoring Well
- MW-4 New Monitoring Well
- B-12 New Soil Boring

TPHg/TPHd/Benzene Concentrations in Groundwater (µg/L)

Date	TPHg	TPHd*	Benzene
5/22/12	<b>59</b>	<b>2,300</b>	<1.0

ESLs (µg/L)	TPHg	TPHd	Benzene
COMMERCIAL	500	640	46

TPHd Diesel Range Total Petroleum Hydrocarbons  
 TPHg Gasoline Range Total Petroleum Hydrocarbons  
 ESLs Environmental Screening Levels (Non Drinking Water Source)  
 < Not detected at or above value shown  
 µg/L Micrograms per liter as in parts per billion (ppb)  
**BOLD** Analytes detected  
 \* Silica gel cleanup was completed on diesel-range organics analysis

Grab Groundwater Sample  
 Well Groundwater Sample

REF. 154\_001\154.004.008 fig4-5.dwg  
 Base Map from Google Earth, 2012

PREPARED BY

**TRINITY**  
 source group, inc.  
 Environmental Consultants

500 Chestnut Street, Suite 225  
 Santa Cruz, California 95060  
 v: 831.426.5600  
 f: 831.426.5602

**SHALLOW GROUNDWATER ANALYTICAL DATA SUMMARY MAP,  
 VARIOUS DATES**  
 ABF Freight System Facility  
 4575 Tidewater Avenue  
 Oakland, California

PROJECT:  
 154.004.008

FIGURE:  
 5

# **ATTACHMENT A**

## **Regulatory Correspondence**

**Debra Moser**

---

**From:** Detterman, Mark, Env. Health  
**Sent:** Monday, January 14, 2013 3:51 PM  
**To:** 'Debra Moser'  
**Cc:** David Reisma; Mike Rogers  
**Subject:** RE: Request for Extension, Site Assessment, ABF Freight Facility, 4575 Tidewater, Oakland

Hi All,  
Sorry to hear of the SNAFU. The extension sounds fine and reasonable. Please use this email to document ACEH concurrence with the requested date and extension. I'll update Geotracker shortly.  
Regards,

*Mark Detterman*  
*Senior Hazardous Materials Specialist, PG, CEG*  
*Alameda County Environmental Health*  
*1131 Harbor Bay Parkway*  
*Alameda, CA 94502*  
*Direct: 510.567.6876*  
*Fax: 510.337.9335*  
*Email: mark.detterman@acgov.org*

*PDF copies of case files can be downloaded at:*

*<http://www.acgov.org/aceh/lop/ust.htm>*

---

**From:** Debra Moser [mailto:djm@tsgcorp.net]  
**Sent:** Monday, January 14, 2013 3:37 PM  
**To:** Detterman, Mark, Env. Health  
**Cc:** David Reisma; Mike Rogers  
**Subject:** Request for Extension, Site Assessment, ABF Freight Facility, 4575 Tidewater, Oakland

Hi Mark,  
I'm contacting you because we have run into a delay in our assessment of the ABF Freight facility referenced above.

The sub-slab vapor sampling has to be re-done, because the lab failed to perform the VOC analysis on the Summa canisters. We plan to re-sample on Thursday 1/17/13.

In view of the delay, we request an extension of the due date for this report, to 2/22/13.

Please contact Trinity with questions regarding this request.

Thank you,  
Debbie

**Debra J. Moser, PG, CEG, CHG**  
*Senior Geologist*  
**Trinity Source Group, Inc.**  
*500 Chestnut Street, Suite 225*  
*Santa Cruz, CA 95060*  
*Tel: (831) 426-5600*  
*Fax: (831) 426-5602*

1/15/2013

## Eric Choi

---

**From:** Debra Moser <djm@tsgcorp.net>  
**Sent:** Tuesday, December 11, 2012 1:40 PM  
**To:** 'Eric Choi'; 'Cora Olson'  
**Subject:** FW: ABF Facility, 4575 Tidewater, Oakland (RO3033)

Hi Eric and Cora,  
Please see Mark Detterman's approval letter below.

The letter says that a GW monitoring report is due on 12/14/12, but Mark later clarified that this is an error.

Let's talk about the scope before Monday.

Thanks,  
Deb

**Debra J. Moser, PG, CEG, CHG**  
*Senior Geologist*

**Trinity Source Group, Inc.**  
500 Chestnut Street, Suite 225  
Santa Cruz, CA 95060  
Tel: (831) 426-5600  
Fax: (831) 426-5602  
Cell: (831) 212-8846

The materials transmitted by this electronic mail are confidential, are only for the use of the intended recipient, and may also be subject to applicable privileges. Any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please immediately notify the sender. Please also remove this message from your hard drive, diskette, and any other storage device.

---

**From:** Detterman, Mark, Env. Health [mailto:Mark.Detterman@acgov.org]  
**Sent:** Tuesday, November 20, 2012 11:53 AM  
**To:** 'Debra Moser'  
**Cc:** 'Mike Rogers'  
**Subject:** RE: ABF Facility, 4575 Tidewater, Oakland (RO3033)

Hi Debbie, Hi Mike,

ACEH is in general agreement with the revised site plan which depicts the revised location for MW-3 and the addition of bore B-12. As you mention below, and as we discussed, the collection of shallow soil is one of the items the LTCP is concerned with, and appears very critical at this site; especially since there are multiple notations on the bore logs of very shallow "wet" soils above what was labeled "first water". At present it remains an open question in my mind as to the depth "first water" actually is found at. Regardless...

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site, including the *Soil, Groundwater, and Sub-Slab Vapor Investigation Data Package*, dated July 27, 2012, and the revised Figure 6, revised by hand that was emailed on November 19, 2012. Both were prepared by the Trinity Source Group, Inc (Trinity). Thank you for both; they help move the site forward.

**Cc:** 'Mike Rogers'

**Subject:** ABF Facility, 4575 Tidewater, Oakland

Hi Mark,

This email confirms our earlier phone conversation, regarding the scope of work for the next phase of work at the referenced site.

ABF has agreed to the additional soil boring with grab-groundwater sampling, with the two wells to be installed at the site. The attached mark-up shows our proposed well and boring locations.

We will be sure to sample soils at shallow depths, so we will have data for the low-threat closure guidelines.

If this all looks ok, then we'll schedule the work for December 2012.

Please confirm your approval of the locations, or let us know otherwise.

Regards,  
Debbie

***Debra J. Moser, PG, CEG, CHG***  
*Senior Geologist*

***Trinity Source Group, Inc.***  
*500 Chestnut Street, Suite 225*  
*Santa Cruz, CA 95060*  
*Tel: (831) 426-5600*  
*Fax: (831) 426-5602*  
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ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY

ALEX BRISCOE, Agency Director



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

April 25, 2012

Arkansas Bandag Corporation  
PO Box 10048  
Fort Smith AR 72917

Mr. Chris Brown  
ABF Freight Systems, Inc.  
PO Box 10048  
Fort Smith AR 72917  
(sent via electronic mail to [cbrown@abf.com](mailto:cbrown@abf.com))

Subject: Conditional Approval of Work Plan Addendum; Fuel Leak Case No. RO0003033 and GeoTracker Global ID T0600100018, ABF Freight Systems, 4575 Tidewater Avenue, Oakland, CA 94601

Dear Mr. Brown:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site, including the *Soil and Groundwater Investigation Work Plan Addendum*, dated March 6, 2012, prepared by the Trinity Source Group, Inc (Trinity). Thank you for the addendum. In the work plan addendum, the work was divided into two mobilization phases. In the initial phase, the addendum proposed the installation of 6 soil bores within the former UST excavation (with limited changes in bore location), and proposed the installation of five additional soil bores around the former UST complex in an effort to laterally define the extent of potential soil and groundwater contamination. The addendum included the preferential pathway study of site utilities and modified the locations and analytical suite of the two proposed sub-slab vapor points (and several soil bore locations) in response. Phase two of the proposed investigation is the installation of two groundwater monitoring wells based on the data generated in the first phase, and in consultation / concurrence with ACEH.

Based on ACEH staff review of the referenced documents and of the case file we generally concur with the recently proposed scope of work, provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation. Submittal of a revised work plan or a work plan addendum is not required unless an alternate scope of work outside that described in the work plan or technical comments below is proposed. We request that you address the following technical comments, submit the requested document, and upon ACEH approval, perform the proposed work, and send us the technical reports requested below. Please provide 72-hour advance written notification to this office (e-mail preferred to: [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org)) prior to the start of field activities.

### **TECHNICAL COMMENTS**

- 1. Groundwater Monitoring Well Construction Specifications** – Trinity has proposed the installation of ¾-inch diameter groundwater monitoring wells at the site. ACEH has significant concerns in regards to the appropriateness of a small diameter well at sites with reasonable access (no limited access concerns). It is understood that this may have been proposed as a cost savings measure; however, as the recent Groundwater Resources Association "GRA-Cast Series" *The Nebraska Grout Task Force Research* found and documented, the annular space around narrow gauge wells is not sufficiently wide enough to accommodate the installation of enough bentonite and grout-solids to properly seal the well from the surface environment. In essence and in fact, they leak. The installation of narrow gauge wells also limits the future usefulness of the wells, should remedial efforts be required at the site. For these reasons ACEH requests the installation of standard 2-inch diameter wells, after (as planned) ACEH consultation and concurrence.

2. **Laboratory Analysis** – In an effort to preclude miscommunication, ACEH notes that silica gel cleanup was not mentioned in the work plan addendum; however, was requested in the previous directive letter. ACEH is in agreement that silica gel cleanup is appropriate for soil and groundwater analysis at the site for extractable ranged organics.
3. **Soil and Groundwater Investigation Report** - Please submit a soil and groundwater report by the date identified below.

### **TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Mark Detterman), according to the following schedule:

- **June 29, 2012** – Soil, Groundwater, and Vapor Data Submittal
- **60 Days After Well Location Approval** – Soil and Groundwater Investigation Report (with initial quarterly groundwater monitoring data)
- **December 14, 2012** – Quarterly Groundwater Monitoring Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org).

Sincerely,



Digitally signed by Mark E. Detterman  
DN: cn=Mark E. Detterman, o, ou, email,  
c=US  
Date: 2012.04.25 11:07:47 -07'00'

Mark E. Detterman, PG, CEG  
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations  
Electronic Report Upload (ftp) Instructions

cc: David Reinsma, Trinity Source Group, Inc, 500 Chestnut Street, Suite 225, Santa Cruz, CA 95060  
(sent via electronic mail to [dar@tsgcorp.net](mailto:dar@tsgcorp.net))

Debra Moser, Trinity Source Group, Inc, 500 Chestnut Street, Suite 225, Santa Cruz, CA 95060  
(sent via electronic mail to [djm@tsgcorp.net](mailto:djm@tsgcorp.net))

Donna Drogos, (sent via electronic mail to [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Mark Detterman (sent via electronic mail to [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org))  
Electronic File, GeoTracker

# Attachment 1

## Responsible Party(ies) Legal Requirements/Obligations

### REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

### ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.waterboards.ca.gov/water\\_issues/programs/ust/electronic\\_submittal/](http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)).

### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

### AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>REVISION DATE:</b> July 20, 2010
	<b>ISSUE DATE:</b> July 5, 2005
	<b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

## REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

## Submission Instructions

- 1) Obtain User Name and Password
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org)
  - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
  
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
    - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
  
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

# **ATTACHMENT B**

## **Field Procedures**

# ATTACHMENT B

## FIELD PROCEDURES

### **Soil Borings**

#### **Prefield Tasks**

Exploratory boreholes are permitted and installed in accordance with state and local guidelines using a subcontracted state licensed driller. Prior to drilling, standard boring clearance procedures are followed to minimize the potential for encountering structures in the subsurface. Standard borehole clearance procedures include: (1) marking boring locations at the site and visually identifying, where possible, existing utilities; (2) notifying Underground Service Alert (USA); (3) obtaining available facility blueprints; (4) reviewing boring locations with former site operators; (5) performing field review of USA markings; and (6) hand clearing each boring to a depth of 5 feet below ground surface (bgs). Additional tasks include completing a site-specific health and safety plan and scheduling inspectors.

#### **Exploratory Drilling**

The boring is drilled using Geoprobe® or similar direct-push drilling equipment. A precleaned sampler with a clear acetate liner and drive rods (typically two inches in diameter) is advanced for the purpose of collecting samples and evaluating subsurface conditions. The sampler is advanced in intervals of 3 to 4 feet, then the rods and sampler are retracted and the acetate liner removed from the sampler head for evaluation and sample collection by the onsite Trinity geologist. The sampler head is then cleaned, filled with a new acetate liner, inserted into the borehole, and advanced over the next sampling interval where the sample retrieval process is repeated.

After retrieval, each filled acetate liner is split open for examination of soils. The onsite Trinity geologist logs the soils including a physical description of observed soil characteristics (i.e. moisture content, consistency, obvious odor, color, photoionization detector [PID] readings, etc.), drilling difficulty, and soil type as a function of depth, in accordance with the Unified Soil Classification System (USCS).

Soils collected at 2-foot intervals are screened in the field for volatile organic compounds (VOCs) using a photoionization detector (PID). The PID screening is conducted by placing approximately 30 grams from an undisturbed soil sample into a clean plastic zip-lock bag. The bag is then placed in the ambient air for approximately 20 minutes, pierced, and the head-space within the bag tested for total organic vapor measured in parts per million as benzene (ppm; volume/volume). The PID readings represent relative levels of organic vapors for the site conditions at the time of drilling. The PID readings are noted on the field logs.

In general, soil samples are preserved at changes in soil type, elevated PID readings or at a minimum of every 4 feet. Selected soil samples are retained in the acetate liners, and capped with Teflon sheeting and plastic end caps, properly labeled and then placed in an ice-filled cooler for transport to the laboratory under chain-of-custody documentation.

#### **Grab-Groundwater Sampling**

After a soil boring has been drilled to the total depth a grab-groundwater sample may be collected. A temporary PVC casing with a screen in the water-bearing zone will be placed into the boring. The casing

is bailed with a Teflon bailer until the water appears clear, and then a grab-groundwater sample is collected. Groundwater samples are placed into laboratory-supplied containers appropriate for the analyses to be performed. Ground water sampling is described in greater detail below. Purge water from groundwater sampling is stored in 55-gallon drums and removed off site by a licensed waste hauler. Waste disposal documentation is included in the summary report.

### **Monitoring Well Installation**

The monitoring well is initially advanced, logged and sampled using the direct push equipment and then over-drilled using 8-inch diameter hollow-stem auger drilling equipment.

Once the total depth is achieved, the borehole is completed as a 2-inch diameter groundwater monitoring well. The well is constructed using Schedule 40 PVC casing, with 0.020-inch factory-slotted screen placed across and above the water-bearing zone. A #3 sand pack is placed in the annulus across from the screens and extends 0.5 feet above the screened interval, followed by a 1-foot bentonite seal. A Portland neat cement grout is placed to seal the well to the ground surface. The well sealing process is observed by Alameda County Water District inspectors as required. A watertight cap is installed on the wellhead and the well is secured with a locked, 12-inch traffic-rated vault box finished in concrete or asphalt to match the surrounding surface.

### **Well Development**

A minimum of 72 hours after the completion of the wells, Trinity returns to the site to develop the wells.

The wells are developed to clean the well and to stabilize the aquifer materials around the slots/perforations. This is typically accomplished through pumping and or bailing methods to remove a minimum of 10 casing volumes.

### **Monitoring Well Purging and Sampling**

Monitoring wells are purged by removing approximately three casing volumes of water from the well using a clean disposable bailer or electrical submersible purge pump. Purge volumes are calculated prior to purging. During purging, the temperature, pH, and electrical conductivity of the purge water are monitored. The well is considered to be sufficiently purged when the four casing volumes have been removed; the temperature, pH, and conductivity values have stabilized to within 10% of the initial readings; and the groundwater being removed is relatively free of suspended solids. After purging, groundwater levels are allowed to stabilize to within 80% of the initial water level reading. A water sample is then collected from each well with a clean, disposable polyethylene bailer. If the well is bailed or pumped dry prior to removing the minimum amount of water, the groundwater is allowed to recharge. If the well has recharged to within 80% of the initial depth to water reading within two hours, the well will continue to be purged until the minimum volume of water has been removed. If the well has not recharged to at least 80% of the initial depth to water reading within two hours, the well is considered to contain formational water and a groundwater sample is collected. Groundwater removed from the well is stored in 55-gallon drums at the site and labeled pending disposal.

In wells where free product is detected, the wells will be bailed to remove the free product. An estimate of the volume of product and water will be recorded. If the free product thickness is reduced to the point

where a measurable thickness is no longer present in the well, a groundwater sample will be collected. If free product persists throughout the purging process, a final free product thickness measurement will be taken and a groundwater sample will not be collected.

Groundwater samples for volatile organic compound analyses are stored in 40-milliliter vials so that air passage through the sample is minimized (to prevent volatilization of the sample). The vial is tilted and filled slowly until an upward convex meniscus forms over the mouth of the vial. The Teflon™ side of the septum (in cap) is then placed against the meniscus, and the cap is screwed on tightly. The sample is then inverted and the bottle is tapped lightly to check for air bubbles. If an air bubble is present in the vial, the cap is removed and more sample is transferred from the bailer. The vial is then resealed and rechecked for air bubbles. The sample is then appropriately labeled and stored on ice from the time of collection through the time of delivery to the laboratory. Groundwater samples for other analyses are placed into appropriate laboratory-supplied containers. The chain-of-custody form is completed to ensure sample integrity. Groundwater samples are transported to a state-certified laboratory and analyzed within the U.S. Environmental Protection Agency-specified hold times for the specified analytes.

### **Sub-Slab Vapor Probe Installation and Sampling**

The installation procedure is consistent with that described by USEPA<sup>2</sup>. Sampling and analysis procedures generally follows the guidelines contained in the California Department of Toxic Substances Control (DTSC) “Advisory for Active Soil Gas Investigations” dated January 28, 2003, and the DTSC “Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air” dated October 2011. The installation procedures are summarized below:

Sub-slab vapor probes are installed to float in the concrete slab. The concrete slabs underlying the buildings are assumed to be up to 6 inches thick. Therefore, to install a sub-slab probe, a one-inch diameter hole in the concrete slab is drilled to a depth of approximately 3 inches using a rotary drill or equivalent equipment. Assuming that the hole does not penetrate the slab, the hole is vacuumed out to remove cuttings. The drill bit is then changed to 5/16-inch, and the hole is advanced approximately an additional 6 inches through the slab and into the underlying sub-slab material. The sub-slab vapor probe is assembled using a 2-inch long by ¼-inch inner-diameter (ID) stainless steel tube attached to an NPT ¼-inch ID brass or stainless steel threaded fitting and Swagelok cap or plug. This assembly is placed into the drilled hole, and grouted into place using Sakrete Bolt and Rail Cement (a non-shrinking, quick-setting cement). The cement installation is recessed so that the plug is accessible. The top of the plug is set flush with the top of the concrete slab. A schematic diagram of the sub-slab probe is presented on Figure B-1.

As an alternative, Trinity may install a Vapor Pin™, a patented sub-slab vapor sampling device with a built-in silicon seal. Vapor Pin™ product literature is included in this Attachment. Trinity follows the

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<sup>2</sup> United States Environmental Protection Agency (2006), *Assessment of Vapor Intrusion in Homes Near the Raymark Superfund Site Using Basement and Sub-Slab Air Samples*, and  
United States Environmental Protection Agency, *Draft Standard Operating Procedure for Installation of Sub-Slab Vapor Probes and Sampling Using EPA Method TO-15 to Support Vapor Intrusion Investigations*.

installation procedure, and samples the Vapor Pin™ probe in the same manner as traditional sub-slab probes.

### **Sampling Set-up**

The sub-slab probes are allowed to equilibrate for a minimum of two hours prior to sample collection. Mobilization for sub-slab sampling will not occur if measurable precipitation or site irrigation near the sampling location has occurred in the previous five days.

Prior to sampling, the sampling technician puts on a new pair of clean gloves, and the plug on the sub-slab probe is removed and quickly replaced with a closed Swagelok valve. A tee fitting is connected to two six-liter Summa canisters with a pressure gauge installed on each of these fittings.

The two Summa canisters are connected by approximately 1 to 2 feet of tubing and a third tee fitting. The vacuum reading on each canister is confirmed and recorded before proceeding. The vacuum reading is expected to be 30 inches mercury ("Hg). On the downhole side of the third tee fitting, a 100 to 200-milliliter per minute (ml/min) flow regulator followed by a laboratory supplied particulate filter is installed. On the downhole side of the particulate filter, a vapor-tight valve is installed to connect the sampling equipment with the probe tube. A schematic drawing of the sub-slab sampling set-up is shown on Figure B-2.

### **Leak Testing**

A vacuum test is conducted on the connections between the Summa canisters and the valve on the downhole side of the regulator for 10 minutes by opening and closing the purge canister valve to place a test vacuum on the assembly. Further work is terminated if gauge vacuum cannot be maintained for 10 minutes.

Additional leak testing is performed during the sub-slab vapor sampling by placing a shroud over the sampling assembly, and maintaining a helium-enriched atmosphere under the shroud. The shroud is emplaced after purging the vapor probe, but before the sample is collected. Using a helium canister and appropriate tubing and fittings, helium is injected under the shroud. A helium detector is used to monitor the helium-enriched environment beneath the shroud in "real time" until the sampling process is complete. Helium concentrations will be tabulated and included in the investigation report. 1,1-Difluoroethane is also used as a leak detection method using the same shroud method.

### **Purging**

If the vacuum test is successful, purging is conducted. The purge canister valve and the valve on the downhole side of the particulate filter are opened and the time is recorded. The purge canister valve is closed after three volumes of air have been purged from the sample apparatus and borehole. The purge volume is calculated based on the internal volume of the tubing and probe apparatus. The amount of air purged is measured based on the time that the flow-control orifice is opened, with a flow rate of 100 to 200-ml/min, and based on a discernable vacuum drop on the purge canister pressure gauge. The time at which purging is terminated is recorded.

### **Sampling**

Following purging, the sample Summa canister valve is opened to begin sample collection. The time at which sample collection begins is recorded.

The flow-control orifice is maintained at 100 to 200-ml/min, and is kept open until the sample Summa canister pressure gauge indicates approximately 5"Hg. At that point, the sample canister valve is closed and the time recorded. The tee fitting on the sample canister is replaced with a laboratory-supplied brass plug.

The sample canister is labeled and chain-of-custody maintained by recording: sample name, sample date, sample time, final vacuum, canister and flow controller serial numbers, initials of sample collector, and the compounds to be analyzed by the certified laboratory. The sample canisters are stored in a container that blocks sunlight to the opaque canister and does not subject the air-tight canister to changes in pressure and temperature. The sample canisters are delivered to the analytical laboratory via ground transportation under chain-of-custody documentation.

Sorbent tubes will be used to sample for some of the analytes. The procedure for sampling with a sorbent tube involves attaching a metered air sampling pump to one end of the sorbent tube, and attaching the other end to the sub-slab probe. The sampling pump is activated for a pre-determined period of time at a predetermined flow rate, to allow sufficient sample volume to sorb to the tube. Following sampling, the tube is sealed at both ends, labeled, and delivered to the laboratory via ground transportation under chain-of-custody documentation.

## Scope:

This standard operating procedure describes the installation and extraction of the Vapor Pin™<sup>1</sup> for use in sub-slab soil-gas sampling.

## Purpose:

The purpose of this procedure is to assure good quality control in field operations and uniformity between field personnel in the use of the Vapor Pin™ for the collection of sub-slab soil-gas samples.

## Equipment Needed:

- Assembled Vapor Pin™ [Vapor Pin™ and silicone sleeve (Figure 1)] - Because of sharp edges, gloves are recommended for sleeve installation;
- Hammer drill;
- 5/8-inch diameter hammer bit (Hilti™ TE-YX 5/8" x 22" #00206514 or equivalent);
- 1½-inch diameter hammer bit (Hilti™ TE-YX 1½" x 23" #00293032 or equivalent) for flush mount applications;
- ¾-inch diameter bottle brush;
- Wet/dry vacuum with HEPA filter (optional);
- Vapor Pin™ installation/extraction tool;
- Dead blow hammer;
- Vapor Pin™ flush mount cover, as necessary;
- Vapor Pin™ protective cap; and

- VOC-free hole patching material (hydraulic cement) and putty knife or trowel.



**Figure 1.** Assembled Vapor Pin™.

## Installation Procedure:

- 1) Check for buried obstacles (pipes, electrical lines, etc.) prior to proceeding.
- 2) Set up wet/dry vacuum to collect drill cuttings.
- 3) If a flush mount installation is required, drill a 1½-inch diameter hole at least 1¾-inches into the slab.
- 4) Drill a 5/8-inch diameter hole through the slab and approximately 1-inch into the underlying soil to form a void.
- 5) Remove the drill bit, brush the hole with the bottle brush, and remove the loose cuttings with the vacuum.
- 6) Place the lower end of Vapor Pin™ assembly into the drilled hole. Place the small hole located in the handle of the extraction/installation tool over the Vapor

---

<sup>1</sup>Cox-Colvin & Associates, Inc., designed and developed the Vapor Pin™; a patent is pending.

Pin™ to protect the barb fitting and cap, and tap the Vapor Pin™ into place using a dead blow hammer (Figure 2). Make sure the extraction/installation tool is aligned



**Figure 2.** Installing the Vapor Pin™.

parallel to the Vapor Pin™ to avoid damaging the barb fitting.

For flush mount installations, unscrew the threaded coupling from the installation/extraction handle and use the



**Figure 3.** Flush-mount installation.

hole in the end of the tool to assist with the installation (Figure 3).

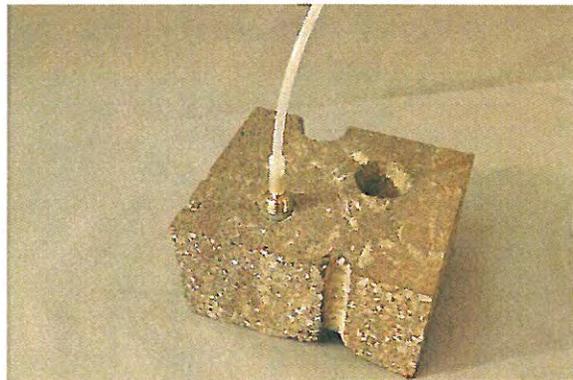
During installation, the silicone sleeve will form a slight bulge between the slab and the Vapor Pin™ shoulder. Place the



**Figure 4.** Installed Vapor Pin™.

protective cap on Vapor Pin™ to prevent vapor loss prior to sampling (Figure 4).

- 7) For flush mount installations, cover the Vapor Pin™ with a flush mount cover.
- 8) Allow 20 minutes or more (consult applicable guidance for your situation) for the sub-slab soil-gas conditions to equilibrate prior to sampling.
- 9) Remove protective cap and connect sample



**Figure 5.** Vapor Pin™ sample connection.

tubing to the barb fitting of the Vapor Pin™ (Figure 5).

- 10) Conduct leak tests [(e.g., real-time

monitoring of oxygen levels on extracted sub-slab soil gas, or placement of a water dam around the Vapor Pin™) Figure 6].



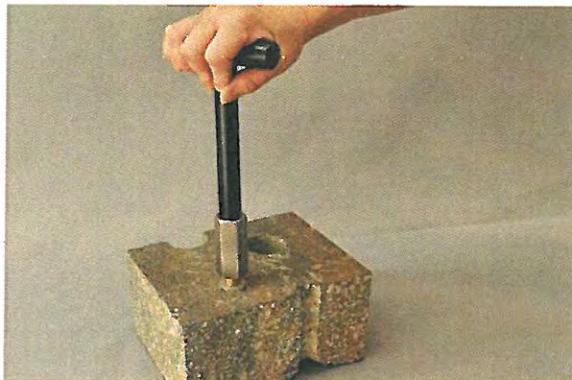
**Figure 6.** Water dam used for leak detection.

Consult your local guidance for possible tests.

11) Collect sub-slab soil gas sample. When finished sampling, replace the protective cap and flush mount cover until the next sampling event. If the sampling is complete, extract the Vapor Pin™.

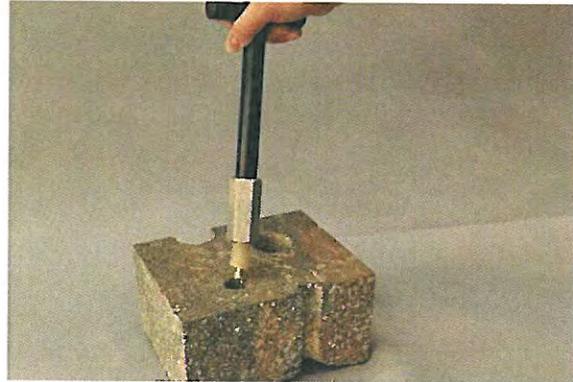
#### Extraction Procedure:

1) Remove the protective cap, and thread the installation/extraction tool onto the barrel



**Figure 7.** Removing the Vapor Pin™.

of the Vapor Pin™ (Figure 7). Continue turning the tool to assist in extraction, then pull the Vapor Pin™ from the hole (Figure 8).



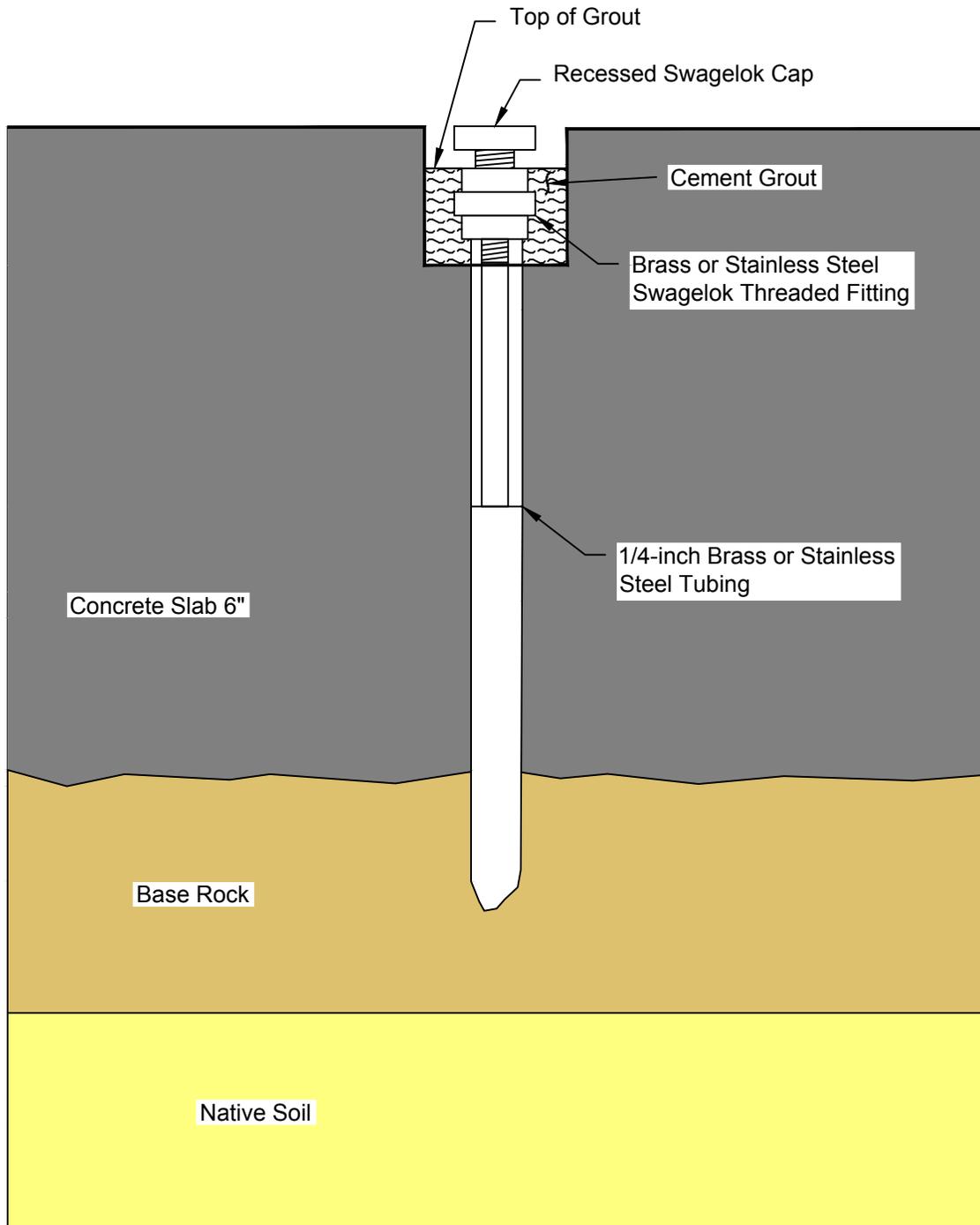
**Figure 8.** Extracted Vapor Pin™.

- 2) Fill the void with hydraulic cement and smooth with the trowel or putty knife.
- 3) Prior to reuse, remove the silicone sleeve and discard. Decontaminate the Vapor Pin™ in a hot water and Alconox® wash, then heat in an oven to a temperature of 130° C.

The Vapor Pin™ is designed to be used repeatedly; however, replacement parts and supplies will be required periodically. These parts are available on-line at [www.CoxColvin.com](http://www.CoxColvin.com).

#### Replacement Parts:

- Vapor Pin™ Kit Case - VPC001
- Vapor Pins™ - VPIN0522
- Silicone Sleeves - VPTS077
- Installation/Extraction Tool - VPIE023
- Protective Caps - VPPC010
- Flush Mount Covers - VPFM050
- Water Dam - VPWD004
- Brush - VPB026



REF. 154\_001\154.003.001 fig C-1.dwg

PREPARED BY



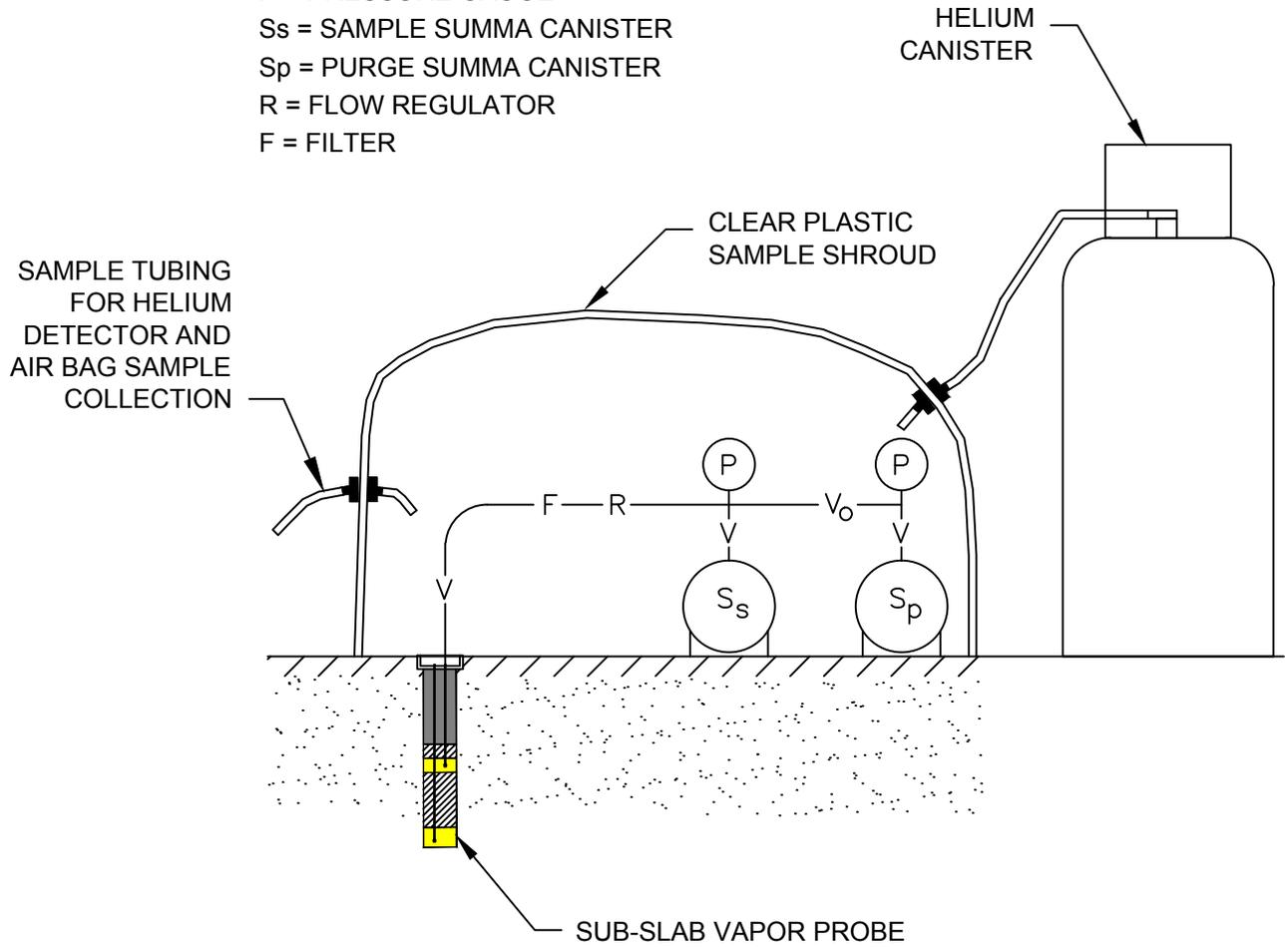
**SUB-SLAB VAPOR PROBE SCHEMATIC**

ABF Freight System Facility  
 4575 Tidewater Ave.  
 Oakland, California

PROJECT:  
 154.004.008

FIGURE:  
 B-1

V = VALVE  
 Vo = OPTIONAL VALVE  
 P = PRESSURE GAUGE  
 Ss = SAMPLE SUMMA CANISTER  
 Sp = PURGE SUMMA CANISTER  
 R = FLOW REGULATOR  
 F = FILTER



\* USE SWAGELOK FITTINGS ON ALL CONNECTIONS

\*\* ASSEMBLE SAMPLE APPARATUS AND LEAK TEST PRIOR TO MOBILIZING TO FIELD

REF. 154\_001\154.003.001 fig C-2.dwg

PREPARED BY



500 Chestnut Street, Suite 225  
 Santa Cruz, California 95060  
 v: 831.426.5600  
 f: 831.426.5602

**SUB-SLAB VAPOR SAMPLING  
 EQUIPMENT SCHEMATIC**  
 ABF Freight System Facility  
 4575 Tidewater Ave.  
 Oakland, California

PROJECT:  
 154.004.008

FIGURE:  
 B-2

# **ATTACHMENT C**

## **Permits**

# Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 05/01/2012 By jamesy

Permit Numbers: W2012-0307  
Permits Valid from 05/15/2012 to 06/30/2012

Application Id: 1335470991969  
Site Location: ABF Freight System Facility  
4575 Tidewater Avenue

City of Project Site:Oakland

Project Start Date: 05/15/2012  
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Completion Date:06/30/2012

Applicant: Trinity Source Group - Cora Olson  
500 Chestnut Street, Suite 225, Santa Cruz, CA 95060

Phone: 831-426-5600

Property Owner: Chris Brown  
3801 Old Greenwood Road, Fort Smith, AR 71903

Phone: --

Client: Chris Brown  
3801 Old Greenwood Road, Fort Smith, AR 71903

Phone: --

Contact: Debra Moser

Phone: 831-426-5600  
Cell: 831-212-8846

Receipt Number: WR2012-0131 Total Due: \$265.00  
Payer Name : Cora Olson Total Amount Paid: \$265.00  
Paid By: VISA PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitoring Study - 13 Boreholes  
Driller: Trinity Source Group, Inc - Lic #: 913467 - Method: DP

Work Total: \$265.00

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2012-0307	05/01/2012	08/13/2012	13	2.00 in.	25.00 ft

### Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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

5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

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

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

---

# Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 11/30/2012 By jamesy

Permit Numbers: W2012-0834 to W2012-0836  
Permits Valid from 12/10/2012 to 12/21/2012

Application Id: 1353960554539  
Site Location: ABF Freight Systems Facility  
4575 Tidewater Avenue

City of Project Site:Oakland

Project Start Date: 12/10/2012

Completion Date:12/21/2012

Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Applicant: Trinity Source Group, Inc. - Jon Gamble  
500 Chestnut Street, Suite 225, Santa Cruz, CA 95060

Phone: 831-426-5600

Property Owner: Mike Rogers  
3801 Old Greenwood Road, Fort Smith, AR 72903

Phone: --

Client: \*\* same as Property Owner \*\*

Receipt Number: WR2012-0389 Total Due: \$1059.00  
Payer Name : David A. Reinsma-Trinity Total Amount Paid: \$1059.00  
Source Group Paid By: VISA PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 1 Boreholes  
Driller: Trinity Source Group, Inc. - Lic #: 913467 - Method: DP

Work Total: \$265.00

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2012-0834	11/30/2012	03/10/2013	1	2.00 in.	25.00 ft

### Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the

# Alameda County Public Works Agency - Water Resources Well Permit

permits and requirements have been approved or obtained.

5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

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

---

Well Construction-Monitoring-Monitoring - 2 Wells

Driller: Trinity Source Group, Inc. - Lic #: 913467 - Method: hstem

**Work Total: \$794.00**

## Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2012-0835	11/30/2012	03/10/2013	MW-3	8.00 in.	2.00 in.	5.00 ft	12.00 ft
W2012-0836	11/30/2012	03/10/2013	MW-4	8.00 in.	2.00 in.	5.00 ft	12.00 ft

## Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

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

6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
  7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
  8. Minimum surface seal thickness is two inches of cement grout placed by tremie.
  9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
  10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
-

## **ATTACHMENT D**

### **Boring Logs and Well Completion Reports**

# SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
<b>COARSE GRAINED SOILS</b>  MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	<b>GRAVEL AND GRAVELLY SOILS</b>  MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	<b>CLEAN GRAVELS</b>  (LITTLE OR NO FINES)		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		<b>GRAVELS WITH FINES</b>  (APPRECIABLE AMOUNT OF FINES)		<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		<b>GRAVELS WITH FINES</b>  (APPRECIABLE AMOUNT OF FINES)		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
	<b>SAND AND SANDY SOILS</b>  MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	<b>CLEAN SANDS</b>  (LITTLE OR NO FINES)		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		<b>CLEAN SANDS</b>  (LITTLE OR NO FINES)		<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		<b>SANDS WITH FINES</b>  (APPRECIABLE AMOUNT OF FINES)		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES
		<b>SANDS WITH FINES</b>  (APPRECIABLE AMOUNT OF FINES)		<b>SC</b>	CLAYEY SANDS, SAND - CLAY MIXTURES
	<b>FINE GRAINED SOILS</b>  MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	<b>SILTS AND CLAYS</b>  LIQUID LIMIT LESS THAN 50		<b>ML</b>	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				<b>OL</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
<b>SILTS AND CLAYS</b>  LIQUID LIMIT GREATER THAN 50			<b>MH</b>	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS	
			<b>CH</b>	INORGANIC CLAYS OF HIGH PLASTICITY	
			<b>OH</b>	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
<b>HIGHLY ORGANIC SOILS</b>				<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

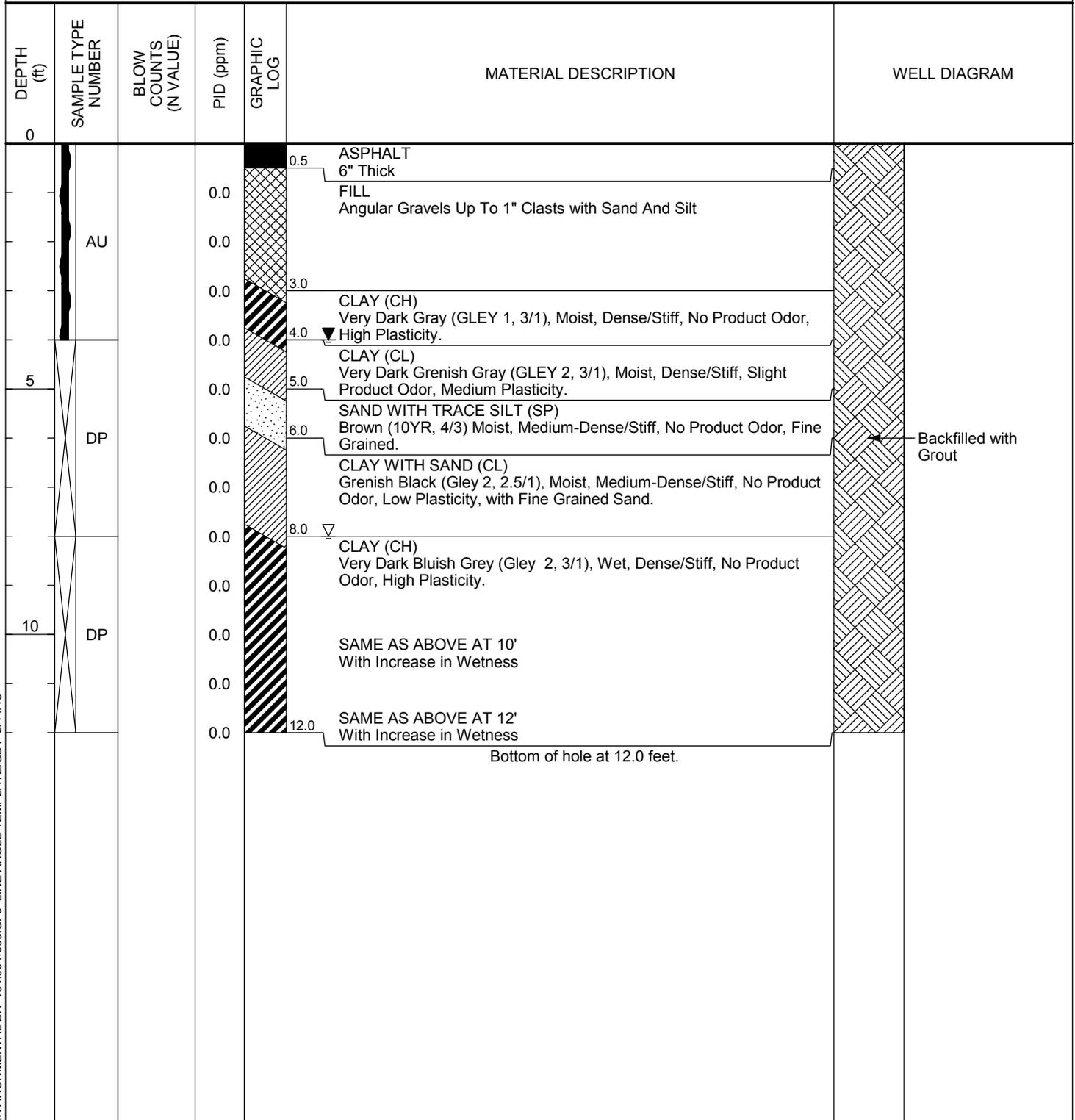


Trinity Source Group, Inc.  
 500 Chestnut St., Suite 225  
 Santa Cruz, California 95060  
 Telephone: 831.426.5600  
 Fax: 831.426.5602

# BORING NUMBER B-12

PAGE 1 OF 1

<b>CLIENT</b> ABF Freight	<b>PROJECT NAME</b> ABF Freight
<b>PROJECT NUMBER</b> 154.004.008	<b>PROJECT LOCATION</b> 4575 Tidewater Ave, Oakland, CA
<b>DATE STARTED</b> 12/17/12	<b>COMPLETED</b> 12/17/12
<b>DRILLING CONTRACTOR</b> ECA	<b>GROUND ELEVATION</b> _____
<b>DRILLING METHOD</b> Geoprobe	<b>HOLE SIZE</b> 3"
<b>LOGGED BY</b> J. Gamble	<b>CHECKED BY</b> D. Moser
<b>NOTES</b> _____	<b>GROUND WATER LEVELS:</b>
	▽ <b>AT TIME OF DRILLING</b> 8.0 ft
	▽ <b>AT END OF DRILLING</b> 4.0 ft
	<b>AFTER DRILLING</b> ---



ENVIRONMENTAL BH 154.004.008.GPJ LINE ANGLE TEMPLATE.GDT 2/14/13

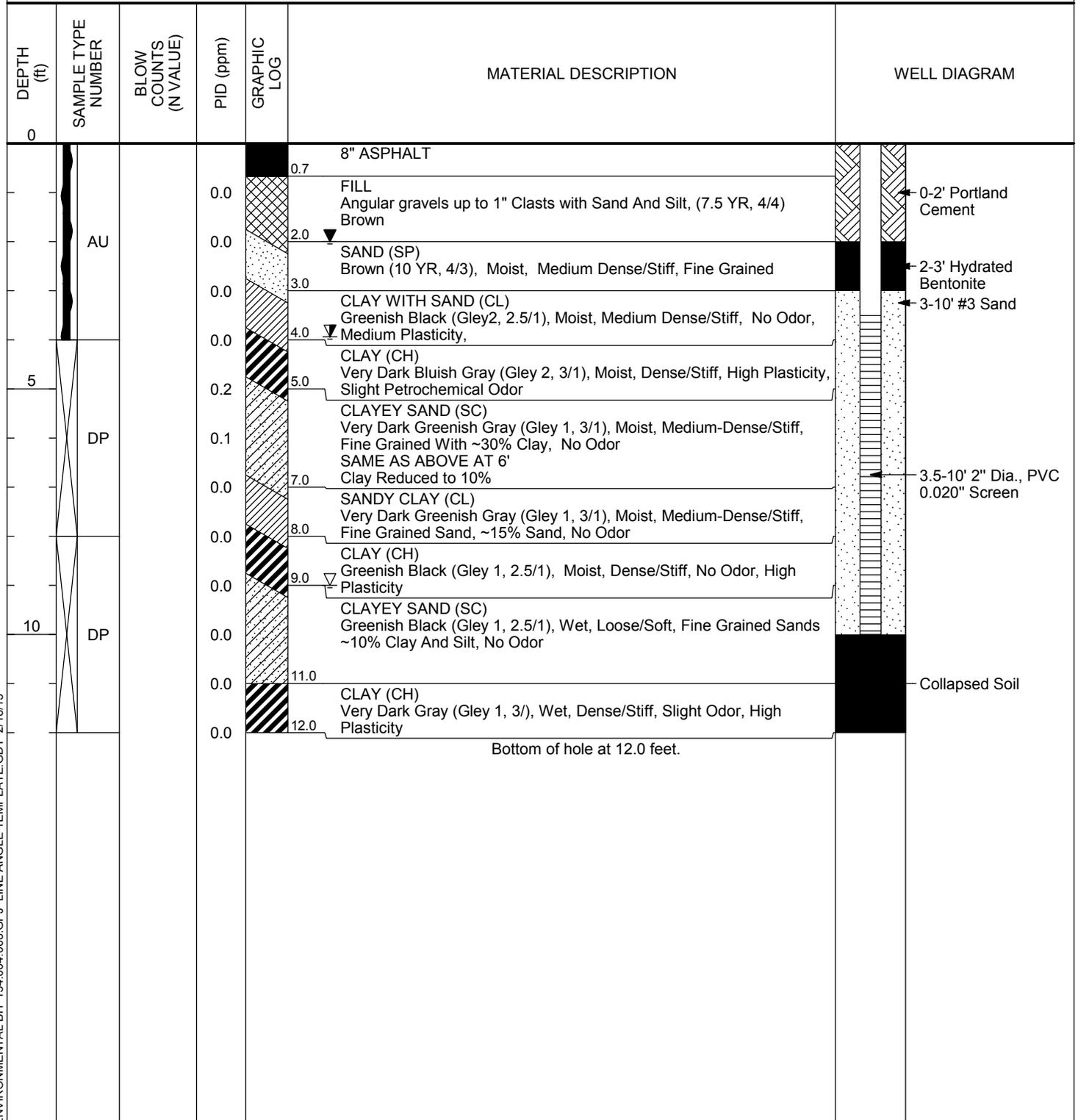


Trinity Source Group, Inc.  
 500 Chestnut St., Suite 225  
 Santa Cruz, California 95060  
 Telephone: 831.426.5600  
 Fax: 831.426.5602

# BORING NUMBER MW-3

PAGE 1 OF 1

<b>CLIENT</b> ABF Freight	<b>PROJECT NAME</b> ABF Freight
<b>PROJECT NUMBER</b> 154.004.008	<b>PROJECT LOCATION</b> 4575 Tidewater Ave, Oakland, CA
<b>DATE STARTED</b> 12/17/12	<b>COMPLETED</b> 12/17/12
<b>DRILLING CONTRACTOR</b> ECA	<b>GROUND ELEVATION</b> _____
<b>DRILLING METHOD</b> Geoprobe	<b>HOLE SIZE</b> 8"
<b>LOGGED BY</b> J. Gamble	<b>CHECKED BY</b> D. Moser
<b>NOTES</b>	<b>GROUND WATER LEVELS:</b>
	▽ <b>AT TIME OF DRILLING</b> 9.0 ft
	▽ <b>AT END OF DRILLING</b> 2.0 ft
	▽ <b>AFTER DRILLING</b> 3.9 ft



ENVIRONMENTAL BH 154.004.008.GPJ LINE ANGLE TEMPLATE.GDT 2/18/13

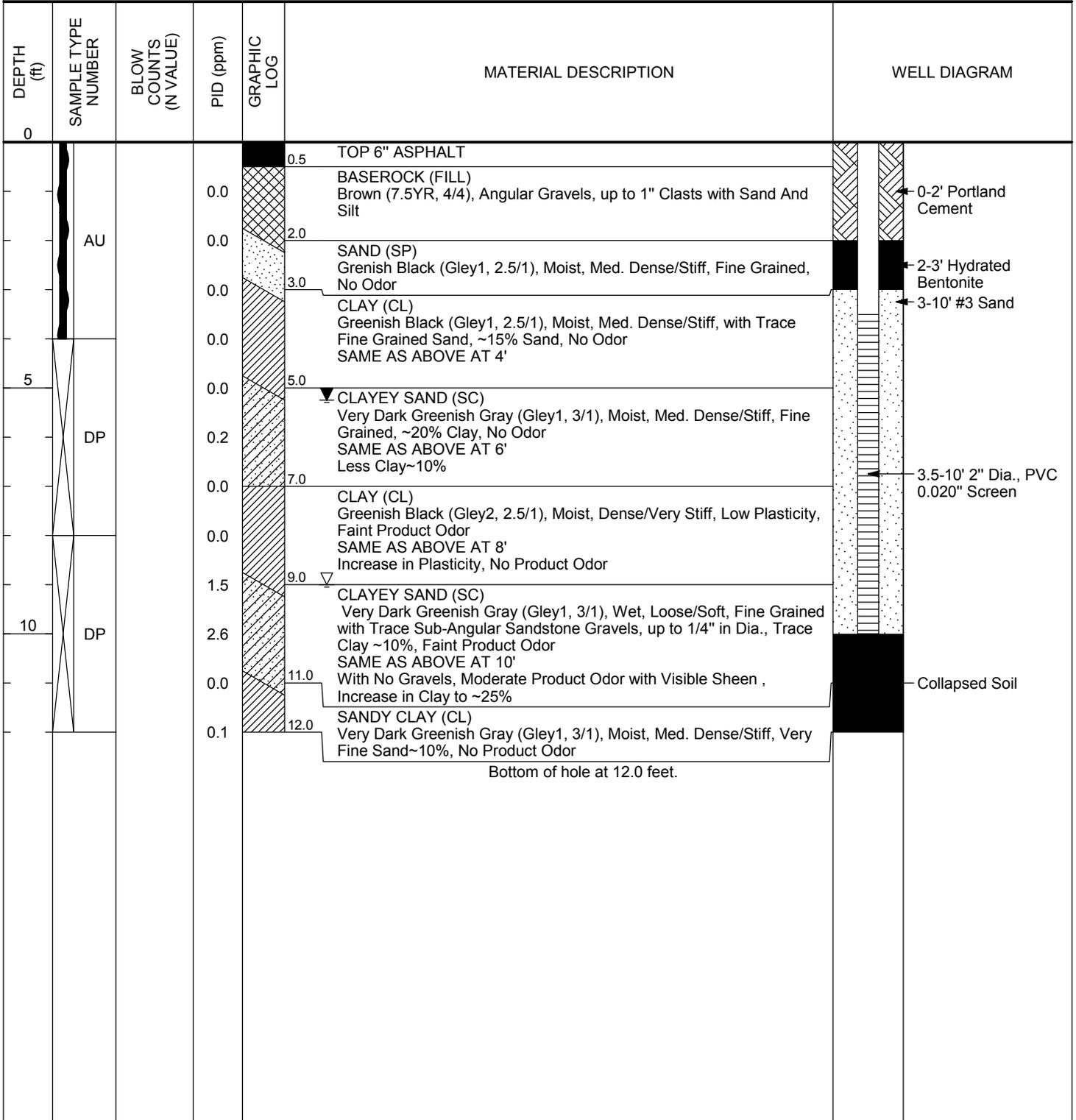


Trinity Source Group, Inc.  
 500 Chestnut St., Suite 225  
 Santa Cruz, California 95060  
 Telephone: 831.426.5600  
 Fax: 831.426.5602

# BORING NUMBER MW-4

PAGE 1 OF 1

<b>CLIENT</b> ABF Freight	<b>PROJECT NAME</b> ABF Freight
<b>PROJECT NUMBER</b> 154.004.008	<b>PROJECT LOCATION</b> 4575 Tidewater Ave, Oakland, CA
<b>DATE STARTED</b> 12/17/12	<b>COMPLETED</b> 12/17/12
<b>DRILLING CONTRACTOR</b> ECA	<b>GROUND ELEVATION</b> _____
<b>DRILLING METHOD</b> Geoprobe	<b>HOLE SIZE</b> 8"
<b>LOGGED BY</b> J. Gamble	<b>CHECKED BY</b> D. Moser
<b>NOTES</b> _____	<b>GROUND WATER LEVELS:</b>
	▽ <b>AT TIME OF DRILLING</b> 9.0 ft
	▽ <b>AT END OF DRILLING</b> 5.3 ft
	<b>AFTER DRILLING</b> ---



ENVIRONMENTAL BH 154.004.008.GPJ LINE ANGLE TEMPLATE.GDT 2/18/13

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

**ATTACHMENT E**  
**Field Data Sheets**

**SOIL GAS INVESTIGATION  
PURGE, SAMPLE & LEAK TEST - FIELD DATA SHEET  
6 Liter Summa**



Project No.: 154.004.004  
 Facility Name: ABF Freight  
 Address: 4575 Tidewater Avenue; Oakland, CA  
 Staff: Eric Choi / Jon Gamble  
 Date: \_\_\_\_\_

Purge Test Location: SVP-2  
 Purge Method: 1L - 6L Summa Canister  
 Leak Test Compound: Helium  
 Flow Control Orifice (ml/min): Approximately 100 ml/min  
 Tubing Size (in): 3/16 ID; 1/4 OD Bore Hole Dia. (in): NA

**Purge Volume Calculation**

Inner Tubing Radius (inches)	Area of Inner Tubing Radius (r2)	Tubing Length (ft)	Convert feet to inches	Total Tubing Volume (ml)	Bore Hole Radius (inches)	Area of Bore Hole Radius (r2)	Length of Bore Hole Sand Pack (in)	Total Bore Hole Volume (ml)	No. of Tubing + Bore Hole Volumes to Purge	Conv. of cubic inches to ml	Total Purge Volume (ml)	Total Purge Volume (L) [L= ml/1000]	Max. Purge rate (ml/min)	Est. Purge Time (min)	Inches of Mercury (5"/Liter)
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	1	16.387	2.047	0.002	100	0.02	0
<b>0.094</b>	<b>0.009</b>	<b>0.375</b>	<b>4.5</b>	<b>2.047</b>	<b>1</b>	<b>1.000</b>	<b>0</b>	<b>0.000</b>	<b>3</b>	<b>16.387</b>	<b>6.142</b>	<b>0.006</b>	<b>100</b>	<b>0.06</b>	<b>0</b>
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	7	16.387	14.331	0.014	100	0.14	0

**Notes:**

Purge volume for tubing can be calculated as follows:  
 (a)  $3.141593(\text{Pi}) * \text{tubing radius}^2 * \text{inches of tubing} * 16.3870641$  (conversion of cubic inches to milliliters)  
 Purge volume for the bore hole can be calculated as follow:  
 (b)  $3.141593(\text{Pi}) * \text{bore hole}^2 * \text{inches of bore hole} * 16.3870641$  (conversion of cubic inches to milliliters)

Total purge volume can be calculated as follows:  
 $a + b * \text{number of tubing/bore hole volume to be purged} = \text{total purge volume}$   
 Estimated purge time can be calculated as follows:  
 $\text{total purge volume (ml)} \div \text{purge rate (max of 167 ml/min)}$

Purging & Sampling Data								Leak Tests Data			Field Readings / Information				
Calculated Total Purge Volume (ml)	Time Start Purging (24 hr)	Time Stop Purging (24 hr)	Initial & Final Vacuum Gauge Reading (Hg")	Cumulative Total Volume Purged (ml)	Time Start Sampling (24 hr)	Time Stop Sampling (24 hr)	Final Vacuum Gauge Reading (Hg")	Iso-propanol Applied (yes/no)	Vacuum Train Leak Check (pass/fail)	Vacuum Train Test Start Time/ Vacuum (Hg")	Vacuum Train Test Stop Time/ Vacuum (Hg")	Probe Install Date	Probe Install Time	Purge Volume s	Probe Depth (Feet)
2.047	1213	1214	-15/14		1215	1220	0							1	0.66
6.142					-27			NO	PASS	1050/-15	1100/-15			3	0.66
14.331														7	0.66

**Notes:**

Helium @ 20% @ 1220, sampled in 5min. compared to SVP-1 took 1 1/2 hrs  
soil gas tube start @ 1310 end 1410  
\*lab didn't supply any purge canisters

**SOIL GAS INVESTIGATION  
PURGE, SAMPLE & LEAK TEST - FIELD DATA SHEET  
6 Liter Summa**



Project No.: 154.004.004  
 Facility Name: ABF Freight  
 Address: 4575 Tidewater Avenue; Oakland, CA  
 Staff: Eric Choi / Jon Gamble  
 Date: \_\_\_\_\_

Purge Test Location: SVP-1  
 Purge Method: 1L ~~6L~~ Summa Canister  
 Leak Test Compound: Helium  
 Flow Control Orifice (ml/min): Approximately 100 ml/min  
 Tubing Size (in): 3/16 ID; 1/4 OD Bore Hole Dia. (in): NA

**Purge Volume Calculation**

Inner Tubing Radius (inches)	Area of Inner Tubing Radius (r2)	Tubing Length (ft)	Convert feet to inches	Total Tubing Volume (ml)	Bore Hole Radius (inches)	Area of Bore Hole Radius (r2)	Length of Bore Hole Sand Pack (in)	Total Bore Hole Volume (ml)	No. of Tubing + Bore Hole Volumes to Purge	Conv. of cubic inches to ml	Total Purge Volume (ml)	Total Purge Volume (L) [L= ml/1000]	Max. Purge rate (ml/min)	Est. Purge Time (min)	Inches of Mercury (5"/Liter)
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	1	16.387	2.047	0.002	100	0.02	0
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	3	16.387	6.142	0.006	100	0.06	0
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	7	16.387	14.331	0.014	100	0.14	0

**Notes:**

Purge volume for tubing can be calculated as follows:  
 (a)  $3.141593(\text{Pi}) * \text{tubing radius}^2 * \text{inches of tubing} * 16.3870641$  (conversion of cubic inches to milliliters)  
 Purge volume for the bore hole can be calculated as follow:  
 (b)  $3.141593(\text{Pi}) * \text{bore hole}^2 * \text{inches of bore hole} * 16.3870641$  (conversion of cubic inches to milliliters)

Total purge volume can be calculated as follows:  
 $a + b * \text{number of tubing/bore hole volume to be purged} = \text{total purge volume}$   
 Estimated purge time can be calculated as follows:  
 $\text{total purge volume (ml)} \div \text{purge rate (max of 167 ml/min)}$

Purging & Sampling Data					Leak Tests Data					Field Readings / Information					
Calculated Total Purge Volume (ml)	Time Start Purging (24 hr)	Time Stop Purging (24 hr)	Initial & Final Vacuum Gauge Reading (Hg")	Cumulative Total Volume Purged (ml)	Time Start Sampling (24 hr)	Time Stop Sampling (24 hr)	Final Vacuum Gauge Reading (Hg")	Iso-propanol Applied (yes/no)	Vacuum Train Leak Check (pass/fail)	Vacuum Train Test Start Time/ Vacuum (Hg")	Vacuum Train Test Stop Time/ Vacuum (Hg")	Probe Install Date	Probe Install Time	Purge Volume s	Probe Depth (Feet)
2.047	1020	1021	-28/-27		1025	1210		NO	PASS	0946/-27	0956/-27			1	0.66
6.142					-28	-6	-6							3	0.66
14.331														7	0.66

**Notes:**

Helium @ 70% @ 1026, 25% @ 1038, 23% @ 1045, 1100 @ 20%, 20% @ 1114  
20% @ 1130, 20% @ 1145, 20% @ 1200  
Sample vessel # SVP-1 @ -28 hgm  
\*Start sorbent tank @ 1210, end 1310



**McCAMPBELL ANALYTICAL INC.**

1534 WILLOW PASS ROAD / PITTSBURG, CA 94565-1701  
 Website: [www.mccampbell.com](http://www.mccampbell.com) / Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**

TURN AROUND TIME

RUSH  24 HR  48 HR  72 HR  5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: David Rensma Bill To: Trinity  
 Company: Trinity Source Group, Inc  
500 Chestnut Street, Suite 225  
Santa Cruz, CA E-Mail: labstrinity@gmail.com  
 Tele: (831) 426-5600 Fax: (831) 426-5602  
 Project #: 154.004 Project Name: ABF Freight  
 Project Location: 4575 Tidewater Ave; Oakland, CA  
 Sampler Signature: [Signature]

Lab Use Only

Pressurized By

Date

Pressurization Gas

N2

He

Helium Shroud SN#:

Other:

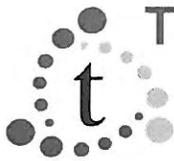
Notes: LOW LEVELS!!  
 Detection Limits: TPHg - 280 ug/m<sup>3</sup>, Benzene - 28 ug/m<sup>3</sup>  
 PCE - 13.8 ug/m<sup>3</sup>, Napthalene - 2.4 ug/m<sup>3</sup>

Field Sample ID (Location)	Collection		Canister SN#	Manifold / Sampler Kit SN#
	Date	Time		
SVP-1	12/17/11	5:10:15	E: 1210	summa
SVP-1				
SVP-1	12/17/11	5:12:10	E: 1310	Sorbent Tube ↳ HL @ Flow
SVP-2	12/17/11	5:12:15	E: 1220	summa
SVP-2				
SVP-2	12/17/11	5:13:10	E: 1410	Sorbent Tube ↳ HL @ Flow

Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum			
			Initial	Final	Receipt	Final (psi)
TPHg + VOCs (TO-15)						
He, O <sub>2</sub> , CH <sub>4</sub> , CO <sub>2</sub> (194 LOD) (%)						
Napthalene (TO-17)						
Co. 7 ml/min for 1 hour						
TPHg + VOCs (TO-15)						
He, O <sub>2</sub> , CH <sub>4</sub> , CO <sub>2</sub> (194 LOD) (%)						
Napthalene (TO-17)						
Co. 7 ml/min for 1 hour						

Relinquished By: [Signature] Date: 12/17/11 Time: 14:10 Received By: [Signature]  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

Run Helium 1st and call it He  
 Temp (°C): \_\_\_\_\_ Work Order #: 1575%  
 Equipment Condition: \_\_\_\_\_  
 Shipped Via: \_\_\_\_\_



# TRINITY

source group, inc.  
Environmental Consultants

500 Chestnut Street, Suite 225  
Santa Cruz, California 95060  
v: 831.426.5600  
f: 831.426.5602

## Drum Disposal Log

Site:

ABF Freight - Oakland  
4757 tide water Ave  
Oakland, CA

Project No.

154.

### Drums to Be Disposed

Date of Field Work	12/17/12		sketch of drum location:
	soil	water	
Number of drum(s) Empty:			
Number of drum(s) 1/4 full:			
Number of drum(s) 1/2 full:			
Number of drum(s) 3/4 full:			
Number of drum(s) full:	2	1	
Total drum(s) on site:	3 - total		
Are drum(s) properly labeled?	Yes	Yes	
Drum ID and Contents:	Seal	Decont	
Notes:	All Trinity drums MUST be labeled appropriately. Describe location of drum(s); <b>attach map</b> : Are drums in locked enclosure? Need to be onsite for pickup? <u>NO</u>		Profiling: Already on file? If new profile is needed: Lab: Analyses:
	Key or combo?		

### Disposal Details

Preferred disposal contractor	Initial when complete
Date pickup requested	
Date pickup completed	
Date paperwork received (scan to server)	
Any unusual conditions?	
Does contractor require form?	

#### Drum Disposal Contractor Contact Information:

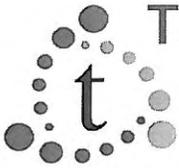
Ultramar/Valero Sites: (need to provide EWO or Work Order # for Belshire to direct bill)	Belshire Environmental Services Adam Burton (949) 460-5200 cell (949) 279-1664 adam@belshire.com
---------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------

Were drums delivered by the disposal contractor?

Other Sites: (need to provide Project Number for billing to Trinity)	Environmental Logistics Nikki Washington (510) 670-9901 (510) 670-9904-Fax nikki_washington@filterrecycling.com
-------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------

Do we need to replenish our drum inventory?





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Environmental Consultants

500 Chestnut Street, Suite 225  
Santa Cruz, California 95060

## Well Development Log

Site: ABF Freight

Sampler: Eric Choi/William Rice

Date: 1/4/13

Project #: 154.004.

Well ID: **MW-3**

Well Diameter	TD BTOC	DTW BTOC	Purge Equipment	Sample Equipment
2"	9.58 / 9.75 <small>initial final</small>	3.62'	12 VDC PUMP	No Sample Collected

**Purge Volume Calculation**

TD \_\_\_\_\_ - DTW 3.62 = 5.96 x Gallons per Linear Foot 0.16 = 0.95 x Number of Casings 10 = ~10 gallons

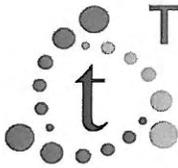
Time (24 hour)	1012	1014	1025	1029	1034	1042	1050
Gallons Purged	1	4	6	8	10	14	18
DO (mg/L)	1.90	1.16	1.89	1.74	2.40	2.46	2.52
pH	6.69	6.62	6.66	6.64	6.63	6.65	6.65
Temperature (°C)	18.6	19.4	20.4	20.4	21.1	21.2	21.2
Conductivity (umhos/cm <sup>2</sup> )	16.42	15.42	11.05	10.16	9.050	6.258	7.935
ORP (mV)	-124	-132	-120	-129	-107	-101	-95
Visual Description	gray	gray	gray	gray	clear	clear	clear
Other <del>#</del>	cloudy	cloudy	cloudy	cloudy			Sourpy
Other (NTU)	>1000	>1000	>1000	>1000	451.1	50.94	19.78

Sample ID	Time	Quantity	Volume	Type	Preservative	Analysis
No sample collected						

**Notes:**

at first observed TD: 9.58', surged well prior to pumping w/ surge block.  
After pumping ~4 gallons, surged well w/pump.

Casing Diameter	Gallons per Linear Foot
1.25"	0.077
1.5"	0.10
2"	0.16
3"	0.37
3.5"	0.50
4"	0.65
6"	1.46
8"	2.60



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Environmental Consultants

500 Chestnut Street, Suite 225  
Santa Cruz, California 95060

## Well Development Log

Site: ABF Freight

Sampler: Eric Choi/William Rice

Date: 11/4/13

Project #: 154.004.

Well ID: **MW-4**

Well Diameter	TD BTOC	DTW BTOC	Purge Equipment	Sample Equipment
2"	10.18 / 10.18 <i>initial / final</i>	3.18	12 VDC PUMP	No Sample Collected

**Purge Volume Calculation**

TD \_\_\_\_\_ - DTW 3.18 = ~7 x Gallons per Linear Foot 0.16 = 1.12 x Number of Casings 10 = ~11 1/4 gallons

Time (24 hour)	1003	1102	1145				
Gallons Purged	2.5	6	7				
DO (mg/L)	2.41	3.72	4.71				
pH	6.69	6.71	6.76				
Temperature (°C)	16.9	18.1	18.1				
Conductivity (umhos/cm <sup>2</sup> )	6300	6000	6040				
ORP (mV)	-69	-92	-65				
Visual Description	Brown	Brown	Clear				
Other (NTU's)	>1,000	424.5	87.17				
Other							

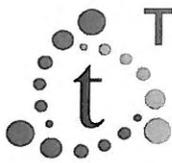
Sample ID	Time	Quantity	Volume	Type	Preservative	Analysis
No sample collected						

**Notes:**

• first observed TD: 10.18 upon arrival @ site, surged well w/ surge block then pumped. After pumping approx. 4 gallons well dry, remove pump and let recharge @ 1006  
 • @ 1109 well dry. Turned pump off to let recharge  
 • @ 1146 well went dry @ 8 gallons

Casing Diameter	Gallons per Linear Foot
1.25"	0.077
1.5"	0.10
2"	0.16
3"	0.37
3.5"	0.50
4"	0.65
6"	1.46
8"	2.60





**TRINITY**  
*source group, inc.*  
 Environmental Consultants

500 Chestnut Street, Suite 225  
 Santa Cruz, California 95060  
 v: 831.426.5600  
 f: 831.426.5602

## Trinity SPH or Purge Water Drum Log

Site:

ABF Freight

### Status of Drum(s) Upon Arrival

Date	1/7/13							
Number of drum(s) Empty:	0							
Number of drum(s) 1/4 full:	0							
Number of drum(s) 1/2 full:	1							
Number of drum(s) 3/4 full:	0							
Number of drum(s) full:	3							
Total drum(s) on site:	4							
Are drum(s) properly labeled?	Yes							
Drum ID and Contents:	Purge H <sub>2</sub> O							

**Note:**

If you add any SPH to an empty/partially filled drum, drum must have at least 20 gals. of purgewater or DI water.  
 If drum contains SPH, the drum MUST be steel AND labeled with appropriate label.  
 All Trinity drums MUST be labeled appropriately.

### Status of Drum(s) Upon Departure

Date	1/7/13							
Number of drum(s) Empty:	0							
Number of drum(s) 1/4 full:	0							
Number of drum(s) 1/2 full:	0							
Number of drum(s) 3/4 full:	0							
Number of drum(s) full:	4							
Total drum(s) on site:	4							
Are drum(s) properly labeled?	Purge H <sub>2</sub> O							
Drum ID and Contents:	Purge H <sub>2</sub> O							

### Location of Drum(s)

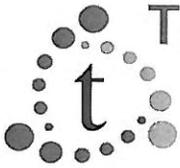
Describe location of drum(s): Behind Service Shop

### Final Status

site this event								
Date of inspection:								
Drum(s) labeled properly:								
Logged by Trinity Field Tech:								
Office reviewed:								







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source group, inc.  
Environmental Consultants

500 Chestnut Street, Suite 225  
Santa Cruz, California 95060

## Well Purge and Sampling Log

Site: ABF Freight

Sampler: Bill Rice

Date: 1/7/13

Project #: 154

Well ID: MW-3

Well Diameter	TD BTOC	DTW BTOC	Purge Equipment	Sample Equipment
2"	9.78	3.68	12V Pump	Boiler

### Purge Volume Calculation

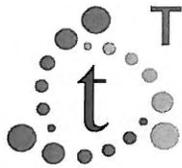
TD 9.78 - DTW 3.68 = 6.1 x Gallons per Linear Foot 0.16 = 0.976 x Number of Casings 3 = 3 gallons

Time (24 hour)	1155	1200	1205				
Gallons Purged	1	2	3				
DO (mg/L)	1.78	1.24	1.34				
pH	6.93	6.87	6.85				
Temperature (°C)	18.5	18.3	18.5				
Conductivity (umhos/cm <sup>2</sup> )	14.67	14.98	15.26				
ORP (mV)	-92	-98	-95				
Visual Description	clear	clear	clear				
Other							
Other							

Sample ID	Time	Quantity	Volume	Type	Preservative	Analysis
<u>MW-3</u>	<u>1215</u>	<u>12</u>	<u>40mL</u>	<u>Voa</u>	<u>Hcl</u>	
		<u>1</u>	<u>500mL</u>	<u>Amber</u>	<u>Hcl</u>	
		<u>1</u>	<u>1 L</u>	<u>Amber</u>	<u>Hcl</u>	

### Notes:

Casing Diameter	Gallons per Linear Foot
1.25"	0.077
1.5"	0.10
2"	0.16
3"	0.37
3.5"	0.50
4"	0.65
6"	1.46
8"	2.60



**TRINITY**

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Environmental Consultants

500 Chestnut Street, Suite 225  
Santa Cruz, California 95060

## Well Purge and Sampling Log

Site: ABF Freight

Sampler: B2

Date: 1/7/13

Project #: 154

Well ID: MW-4

Well Diameter	TD BTOC	DTW BTOC	Purge Equipment	Sample Equipment
2"	10.20	3.91	12v pump	Boiler

**Purge Volume Calculation**

TD 10.20 - DTW 3.91 = 6.29 x Gallons per Linear Foot 0.16 = 1.006 x Number of Casings 3 = 3 gallons

Time (24 hour)	1108	1105	1010				
Gallons Purged	1	2	3				
DO (mg/L)	6.60	2.80	2.67				
pH	6.81	6.81	6.83				
Temperature (°C)	15.4	17.9	18.9				
Conductivity (umhos/cm <sup>2</sup> )	7390	11.13	13.62				
ORP (mV)	31	-40	-54				
Visual Description	Clear	Brown	Brown				
Other							
Other							

Sample ID	Time	Quantity	Volume	Type	Preservative	Analysis
<u>MW-4</u>	<u>1130</u>	<u>12</u>	<u>40L</u>	<u>Voc</u>	<u>Hcl</u>	
		<u>1</u>	<u>500ML</u>	<u>Amber</u>	<u>Hcl</u>	
		<u>1</u>	<u>1L</u>	<u>Amber</u>	<u>Hcl</u>	

**Notes:**

Casing Diameter	Gallons per Linear Foot
1.25"	0.077
1.5"	0.10
2"	0.16
3"	0.37
3.5"	0.50
4"	0.65
6"	1.46
8"	2.60

Trinity Source Group  
500 Chestnut St., Ste 225  
Santa Cruz, CA, 95060

Billing Information:  
Accounts Payable  
Trinity Source Group  
500 Chestnut Street, Suite 225  
Santa Cruz, CA 95060

Report to: labstrinity@gmail.com

Email to: labstrinity@gmail.com

Analysis/Container/Preservative

DROCAERL VI	- 40ml Amb - HCL-BT
DROCAERL VI	- Silica G 40ml Amb - HCL - BT
GRO	- 40ml Amb HCL
SV8270 PAHSIM	- 100ml Amb - No Press
TPHOGHEX	- 1L- Clr - Add HCL Silica Gel
V8260LL	(Only report BTEX/MTBE/Oxygenates/ Naphthalene/EDB/EDC) -40ml Amb - HCL



12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859  
Phone: (615) 758-5858  
Fax: (615) 758-5859

Project Description: ABF Freight Systems, Inc.

City/State Collected: Oakland, CA

Phone: (831) 426-5600  
FAX: (831) 426-5602

Client Project #: 154.

ESC Key: TrinitySCCA-154001

Collected by: *Dill K...*

Site/Facility ID#:

P.O.#:

Collected by (signature):

**Rush?** ( Lab MUST Be Notified )  
 \_\_\_ Same Day.....200%  
 \_\_\_ Next Day.....100%  
 \_\_\_ Two Day.....50%  
 \_\_\_ Three Day.....25%

Date Results Needed:

Email? \_\_\_ No  Yes

FAX?  No \_\_\_ Yes

No. of Cntrs

Immediately Packed on Ice N Y

CoCode (lab use only)

Template/Prelogin

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	DROCAERL VI	DROCAERL VI	GRO	SV8270 PAHSIM	TPHOGHEX	V8260LL	Remarks/Contaminant	Sample # (lab only)
MCS-3		GW		1/7/10	12:15	14	X							
MCS-4		GW		1/7/10	11:30	14	X							

\*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks:

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) <i>[Signature]</i>	Date: 1/7/10	Time: 2:30	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only)
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp:	Bottles Received:
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature)	Date:	Time:
					CoC Seals Intact: ___ Y ___ N ___ NA
					pH Checked: NCF:

**SOIL GAS INVESTIGATION  
PURGE, SAMPLE & LEAK TEST - FIELD DATA SHEET  
6 Liter Summa**



Project No.: 154.004.004  
 Facility Name: ABF Freight  
 Address: 4575 Tidewater Avenue; Oakland, CA  
 Staff: Eric Choi  
 Date: 11/7/13

Purge Test Location: SVP-1  
 Purge Method: 6L Summa Canister  
 Leak Test Compound: Helium  
 Flow Control Orifice (ml/min): Approximately 100 ml/min  
 Tubing Size (in): 3/16 ID; 1/4 OD  
 Bore Hole Dia. (in): NA

**Purge Volume Calculation**

Inner Tubing Radius (inches)	Area of Inner Tubing Radius (r2)	Tubing Length (ft)	Convert feet to inches	Total Tubing Volume (ml)	Bore Hole Radius (inches)	Area of Bore Hole Radius (r2)	Length of Bore Hole Sand Pack (in)	Total Bore Hole Volume (ml)	No. of Tubing + Bore Hole Volumes to Purge	Conv. of cubic inches to ml	Total Purge Volume (ml)	Total Purge Volume (L) [L= ml/1000]	Max. Purge rate (ml/min)	Est. Purge Time (min)	Inches of Mercury (5"/Liter)
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	1	16.387	2.047	0.002	100	0.02	0
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	3	16.387	6.142	0.006	100	0.06	0
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	7	16.387	14.331	0.014	100	0.14	0

**Notes:**  
 Purge volume for tubing can be calculated as follows:  
 (a)  $3.141593(\text{Pi}) * \text{tubing radius}^2 * \text{inches of tubing} * 16.3870641$  (conversion of cubic inches to milliliters)  
 Purge volume for the bore hole can be calculated as follow:  
 (b)  $3.141593(\text{Pi}) * \text{bore hole}^2 * \text{inches of bore hole} * 16.3870641$  (conversion of cubic inches to milliliters)  
 Total purge volume can be calculated as follows:  
 $a + b * \text{number of tubing/bore hole volume to be purged} = \text{total purge volume}$   
 Estimated purge time can be calculated as follows:  
 $\text{total purge volume (ml)} \div \text{purge rate (max of 167 ml/min)}$

Purging & Sampling Data							Leak Tests Data				Field Readings / Information				
Calculated Total Purge Volume (ml)	Time Start Purging (24 hr)	Time Stop Purging (24 hr)	Initial & Final Vacuum Gauge Reading (Hg")	Cumulative Total Volume Purged (ml)	Time Start Sampling (24 hr)	Time Stop Sampling (24 hr)	Final Vacuum Gauge Reading (Hg")	Iso-propanol Applied (yes/no)	Vacuum Train Leak Check (pass/fail)	Vacuum Train Test Start Time/ Vacuum (Hg")	Vacuum Train Test Stop Time/ Vacuum (Hg")	Probe Install Date	Probe Install Time	Purge Volumes	Probe Depth (Feet)
2.047				-29	1345	1351	-3	NO	1325/-24	1335/-29	-PASS			1	0.66
6.142	see notes			~6ml	1040	1040	0	NO	1054/-30	1104/-30	-PASS			3	0.66
14.331					-30	0	-see notes							7	0.66

**Notes:**  
 -re-installed using vapor pin @ 0945 11/7/13  
 -manifold passed leak test, purged and sampled, but sample down w/in 20 secs call office and lab to discuss, after lab checked bore hole for He, none detected.  
 -sampled tube started @ 1138 to 1238  
 -lab to deliver add. manifold and sample canister  
 -lab on-site @ 1320, He @ 20% @ 1345, 25% @ 1348, 23% @ 1350  
 -purged using syringe due to small purge volume

**SOIL GAS INVESTIGATION  
PURGE, SAMPLE & LEAK TEST - FIELD DATA SHEET  
6 Liter Summa**



Project No.: 154.004.004  
 Facility Name: ABF Freight  
 Address: 4575 Tidewater Avenue; Oakland, CA  
 Staff: Eric Choi  
 Date: 1/17/13

Purge Test Location: SVP-2  
 Purge Method: 6L Summa Canister  
 Leak Test Compound: Helium  
 Flow Control Orifice (ml/min): Approximately 100 ml/min  
 Tubing Size (in): 3/16 ID; 1/4 OD  
 Bore Hole Dia. (in): NA

**Purge Volume Calculation**

Inner Tubing Radius (inches)	Area of Inner Tubing Radius (r2)	Tubing Length (ft)	Convert feet to inches	Total Tubing Volume (ml)	Bore Hole Radius (inches)	Area of Bore Hole Radius (r2)	Length of Bore Hole Sand Pack (in)	Total Bore Hole Volume (ml)	No. of Tubing + Bore Hole Volumes to Purge	Conv. of cubic inches to ml	Total Purge Volume (ml)	Total Purge Volume (L) [L= ml/1000]	Max. Purge rate (ml/min)	Est. Purge Time (min)	Inches of Mercury (5"/Liter)
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	1	16.387	2.047	0.002	100	0.02	0
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	3	16.387	6.142	0.006	100	0.06	0
0.094	0.009	0.375	4.5	2.047	1	1.000	0	0.000	7	16.387	14.331	0.014	100	0.14	0

**Notes:**

Purge volume for tubing can be calculated as follows:

(a)  $3.141593(\text{Pi}) * \text{tubing radius}^2 * \text{inches of tubing} * 16.3870641(\text{conversion of cubic inches to milliliters})$

Purge volume for the bore hole can be calculated as follow:

(b)  $3.141593(\text{Pi}) * \text{bore hole}^2 * \text{inches of bore hole} * 16.3870641(\text{conversion of cubic inches to milliliters})$

Total purge volume can be calculated as follows:

$a + b * \text{number of tubing/bore hole volume to be purged} = \text{total purge volume}$

Estimated purge time can be calculated as follows:

$\text{total purge volume (ml)} \div \text{purge rate (max of 167 ml/min)}$

**Purging & Sampling Data      Leak Tests Data      Field Readings / Information**

Calculated Total Purge Volume (ml)	Time Start Purging (24 hr)	Time Stop Purging (24 hr)	Initial & Final Vacuum Gauge Reading (Hg")	Cumulative Total Volume Purged (ml)	Time Start Sampling (24 hr)	Time Stop Sampling (24 hr)	Final Vacuum Gauge Reading (Hg")	Iso-propanol Applied (yes/no)	Vacuum Train Leak Check (pass/fail)	Vacuum Train Test Start Time/ Vacuum (Hg")	Vacuum Train Test Stop Time/ Vacuum (Hg")	Probe Install Date	Probe Install Time	Purge Volumes	Probe Depth (Feet)
2.047														1	0.66
6.142	See notes			~15ml	1020	1040	-3	NO	PASS	0955/-30	1005/-30			3	0.66
14.331					-30	-3								7	0.66

**Notes:**

0 purged using syringe - due to small purge amount / lack of purge canisters  
H<sub>2</sub> @ 27% @ 1022, 30% @ 1025, 24% @ 1030, 20% @ 1034



**McCAMPBELL ANALYTICAL INC.**  
 1534 WILLOW PASS ROAD / PITTSBURG, CA 94565-1701  
 Website: [www.mccampbell.com](http://www.mccampbell.com) / Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**

**TURN AROUND TIME**       
 RUSH 24 HR 48 HR 72 HR 5 DAY  
 EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Debra Moser Bill To:  
 Company: Trinity Source Group, Inc  
Santa Cruz, CA 95060  
 E-Mail:  
 Tele: (831) 426-5600 Fax: (831) 426-5607  
 Project #: 154 Project Name:  
 Project Location:  
 Sampler Signature:

Lab Use Only

Pressurized By	Date	Pressurization Gas	
		N2	He

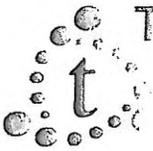
Helium Shroud SN#:  
 Other:

Notes:  
Repeat Helium result, continue analysis if below 5%

Field Sample ID (Location)	Collection		Canister SN#	Manifold / Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum			
	Date	Time						Initial	Final	Receipt	Final (psi)
SVP-1	11/7/13		1346-1351		H <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> , CO <sub>2</sub>						
SVP-2	11/7/13		1020-1040		H <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> , CO <sub>2</sub>						
<del>SVP-1</del>					10-15 TPITg + VOCs						
<del>SVP-2</del>					10-15 TPITg + VOCs						
SVP-1 (Seal break tube)	11/7/13		1138-1238		10-17 Naphthalene only (Seal break tube)						

Temp (°C) : \_\_\_\_\_ Work Order #: \_\_\_\_\_  
 Equipment Condition: \_\_\_\_\_  
 Shipped Via: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date: 11/7/13 Time: 1400 Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_



TRINITY

source group, inc.  
Environmental Consultants

500 Chestnut Street, Suite 225  
Santa Cruz, California 95060  
v: 831.426.5600  
f: 831.426.5602

FIELD DATA SHEET

Client: ABF Freight  
Job Address: 4575 Tidewater  
Weather Conditions: Clear  
Equipment at Site: \_\_\_\_\_  
Arrival Time: 6:40  
Departure Time: 7:20

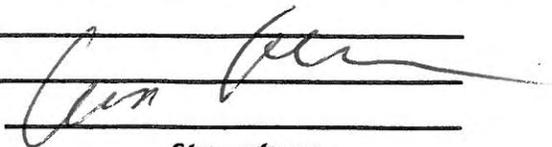
Project #: 154.004  
Date: 2/8/13  
Personnel: ECTCO  
\_\_\_\_\_  
\_\_\_\_\_

FIELD NOTES

6:40 Open all wells and let equilibrate  
for 10 min

Time	Well ID	DTW	TID
6:50	MW-1	4.22	18.2
6:55	MW-2	3.67	14.57
7:10	MW-3	3.98	9.75
7:15	MW-4	3.31	10.2

7:20 Close wells and leave site

  
Signature

# **ATTACHMENT F**

## **Survey Data**



**Mid Coast Engineers**  
**Civil Engineers and Land Surveyors**

70 Penny Lane, Suite A - Watsonville, CA 95076  
Phone: (831) 724-2580  
Fax: (831) 724-8025  
e-mail: lee@midcoastengineers.com

**Richard A. Wadsworth**  
Civil Engineer  
**Stanley O. Nielsen**  
Land Surveyor  
**Lee D. Vaage**  
Land Surveyor  
**Jeff S. Nielsen**  
Land Surveyor

**LETTER OF TRANSMITTAL**

**To:** Eric Choi  
Trinity Source Group, Inc.  
500 Chestnut Street, Suite 225  
Santa Cruz, CA 95060

**Date:** 11 January 2013

**Job No.:** 13001

**Re:** GeoTracker Report

**We are transmitting herewith:**

Survey Report for ABF Freight Systems Facility, 4575 Tidewater Avenue, Oakland,  
California  
TSG Project 154.004.005

**Copy To:**

**Signed:**

A handwritten signature in black ink, appearing to read 'Lee Vaage', is written over a horizontal line.

Lee Vaage, Land Surveyor

If enclosures are not as noted, kindly notify us at once.



# Mid Coast Engineers

## Civil Engineers and Land Surveyors

70 Penny Lane, Suite A - Watsonville, CA 95076  
phone: (831) 724-2580  
fax: (831) 724-8025  
e-mail: lee@midcoastengineers.com

Richard A. Wadsworth  
Civil Engineer

Stanley O. Nielsen  
Land Surveyor

Lee D. Vaage  
Land Surveyor

Jeff S. Nielsen  
Land Surveyor

January 11, 2013

Eric Choi  
Trinity Source Group, Inc.  
500 Chestnut Street, Suite 225  
Santa Cruz, CA 95060

Re: **ABF Freight Systems Facility, 4575 Tidewater Avenue, Oakland, California; TSG Project 154.004.005, MCE Job No. 13001**

Dear Mr. Choi,

As you requested, on January 9 we surveyed the two new monitoring wells and two additional wells we found located at the referenced site. Our findings are shown on the attached sheet expressed in State Plane Coordinates and Latitude/Longitude.

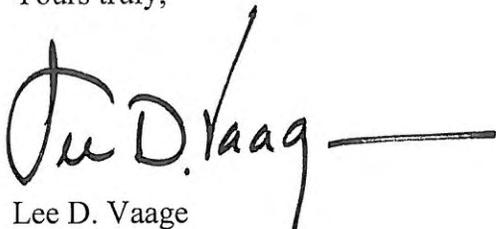
A notch was cut in the north rim of the PVC casing (toc) and a cross chiseled in the north rim of the standard box (tob).

Measurements were obtained from conventional survey techniques in combination with GPS techniques (Code CGPS), using NGS/NOAA control points AA3814 (HPGN D CA 04 FH) and HT3553 (941 4750 R TIDAL) as published and listed on their website. Latitude and Longitude as shown were determined from the California Coordinate System, Zone 3, NAD 83 Datum. The accuracy range of the reported information is +/- 1cm. GPS equipment is the Leica iRover (Code LIROV).

The benchmark used for this survey is NGS HT3553, as mentioned above, a disk on a copper-clad steel rod located south of Hornet Avenue in Alameda at the old U.S. Naval Air Station. Elevation = 11.67feet, NAVD 88 datum.

Please let me know if you have questions or need additional information.

Yours truly,

  
Lee D. Vaage



**ABF FREIGHT SYSTEMS FACILITY**  
**4575 Tidewater Avenue**  
**Oakland, California**

**TSG Project 154.004.005**

Project : 13001

User name MCE Date & Time 9:57:33 AM 1/11/2013  
Coordinate System US State Plane 1983 Zone California Zone 3 0403  
Project Datum NAD 1983 (Conus)  
Vertical Datum NAVD 88  
Coordinate Units US survey feet  
Distance Units US survey feet  
Elevation Units US survey feet

Point Number	Northing	Easting	Elevation	Description
127	2104640.93	6063709.08	11.12	MW-1toc
128	2104641.26	6063709.26	11.56	MW-1tob
129	2104632.50	6063666.26	11.17	MW-2toc
130	2104632.82	6063666.54	11.60	MW-2tob
105	2104613.41	6063715.13	10.96	MW-3toc
106	2104613.80	6063715.08	11.11	MW-3tob
103	2104698.64	6063724.86	11.60	MW-4toc
104	2104698.96	6063725.08	11.92	MW-4tob

**ABF FREIGHT SYSTEMS FACILITY**  
**4575 Tidewater Avenue**  
**Oakland, California**

**TSG Project 154.004.005**

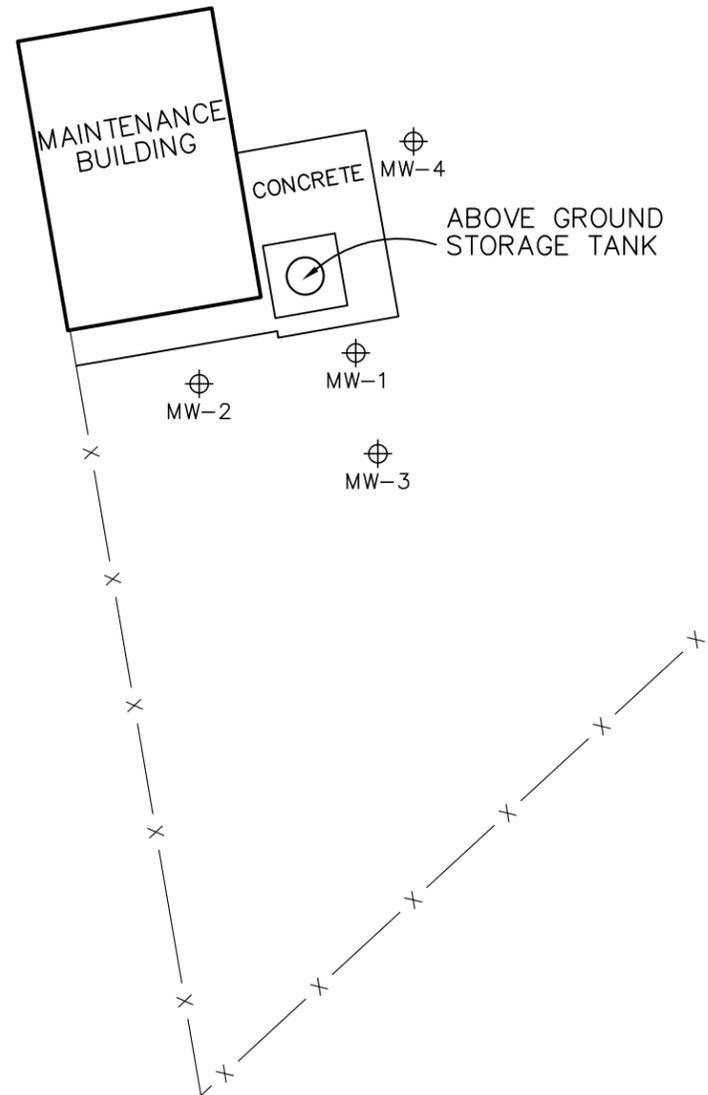
Project : 13001

User name MCE Date & Time 9:57:33 AM 1/11/2013  
Coordinate System US State Plane 1983 Zone California Zone 3 0403  
Project Datum NAD 1983 (Conus)  
Vertical Datum NAVD 88  
Coordinate Units US survey feet  
Distance Units US survey feet  
Elevation Units US survey feet

Point Number	Latitude	Longitude	Elevation	Description
127	37.762368645°N	122.222713306°W	11.12	MW-1toc
128	37.762369579°N	122.222712713°W	11.56	MW-1tob
129	37.762343358°N	122.222860869°W	11.17	MW-2toc
130	37.762344245°N	122.222859916°W	11.60	MW-2tob
105	37.762293401°N	122.222690622°W	10.96	MW-3toc
106	37.762294460°N	122.222690825°W	11.11	MW-3tob
103	37.762527927°N	122.222662404°W	11.60	MW-4toc
104	37.762528818°N	122.222661667°W	11.92	MW-4tob

	A	B	C	D	E	F	G	H	I	J	K	L
1	<b>ABF FREIGHT SYSTEMS FACILITY</b>											
2	<b>4575 Tidewater Avenue</b>											
3	<b>Oakland, California</b>											
4												
5	<b>TSG Project 154.004.005</b>											
6												
7	Project : 13001											
8	User name MCE Date & Time 9:57:33 AM 1/11/2013											
9	Coordinate System US State Plane 1983 Zone California Zone 3 0403											
10	Project Datum NAD 1983 (Conus)											
11	Vertical Datum NAVD 88											
12	Coordinate Units US survey feet											
13	Distance Units US survey feet											
14	Elevation Units US survey feet											
15												
16		MW-1	MW	01/09/2013	37.7623686	-122.2227133	CGPS	NAD83	1	Mid Coast Engineers	LIROV	top of casing
17		MW-2	MW	01/09/2013	37.7623434	-122.2228609	CGPS	NAD83	1	Mid Coast Engineers	LIROV	top of casing
18												
19		MW-3	MW	01/09/2013	37.7622934	-122.2226906	CGPS	NAD83	1	Mid Coast Engineers	LIROV	top of casing
20		MW-4	MW	01/09/2013	37.7625279	-122.2226624	CGPS	NAD83	1	Mid Coast Engineers	LIROV	top of casing

	A	B	C	D	E	F	G	H	I	J
1	<b>ABF FREIGHT SYSTEMS FACILITY</b>									
2	4575 Tidewater Avenue									
3	Oakland, California									
4										
5	<b>TSG Project 154.004.005</b>									
6										
7	Project : 13001									
8	User name MCE Date & Time 9:57:33 AM 1/11/2013									
9	Coordinate System US State Plane 1983 Zone California Zone 3 0403									
10	Project Datum NAD 1983 (Conus)									
11	Vertical Datum NAVD 88									
12	Coordinate Units US survey feet									
13	Distance Units US survey feet									
14	Elevation Units US survey feet									
15										
16		MW-1	01/09/2013	11.12	CGPS	88	0.5	Mid Coast Engineers	-0.44	BM NGS HT3553 EL=11.67 FEET
17		MW-2	01/09/2013	11.17	CGPS	88	0.5	Mid Coast Engineers	-0.43	BM NGS HT3553 EL=11.67 FEET
18										
19		MW-3	01/09/2013	10.96	CGPS	88	0.5	Mid Coast Engineers	-0.15	BM NGS HT3553 EL=11.67 FEET
20		MW-4	01/09/2013	11.60	CGPS	88	0.5	Mid Coast Engineers	-0.32	BM NGS HT3553 EL=11.67 FEET



NOTES:

1. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
2. BENCHMARK IS NGS HT3553, A DISK ON STEEL ROD SOUTH OF HORNET AVENUE IN ALAMEDA AT THE OLD U.S. NAVAL AIR STATION. ELEVATION = 11.67 FEET, NAVD 88 DATUM.
3. SURVEYED AT THE REQUEST OF TRINITY SOURCE GROUP IN JANUARY 2013, PROJECT 154.004.005.

MONITORING WELL LOCATION MAP FOR  
ABF FREIGHT SYSTEMS FACILITY

4575 TIDEWATER AVENUE  
OAKLAND, CALIFORNIA



**MID COAST ENGINEERS**  
CIVIL ENGINEERS AND LAND SURVEYORS  
70 PENNY LANE SUITE A WATSONVILLE, CA 95076  
(831) 724-2580



SCALE:	1"=50'
JOB NO.	13001
DATE:	JAN. 11, 2013
SHEET:	1 OF 1

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_XY FILE

**SUCCESS**

Processing is complete. No errors were found!  
Your file has been successfully submitted!

<b><u>Submittal Type:</u></b>	GEO_XY
<b><u>Report Title:</u></b>	XY Survey Data for MW-1,2,3,4
<b><u>Facility Global ID:</u></b>	T0600100018
<b><u>Facility Name:</u></b>	ABF FREIGHT SYSTEMS
<b><u>File Name:</u></b>	GEO_XY.zip
<b><u>Organization Name:</u></b>	Trinity Source Group, Inc.
<b><u>Username:</u></b>	TRINITY SOURCE GROUP
<b><u>IP Address:</u></b>	69.198.129.110
<b><u>Submittal Date/Time:</u></b>	1/29/2013 3:23:27 PM
<b><u>Confirmation Number:</u></b>	8603469789

[VIEW GEO\\_XY SUBMITTAL DATA ON MAP](#)

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STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_Z FILE

**SUCCESS**

Processing is complete. No errors were found!  
Your file has been successfully submitted!

<b><u>Submission Type:</u></b>	GEO_Z
<b><u>Report Title:</u></b>	Z Survey Data for MW-1,2,3,4
<b><u>Facility Global ID:</u></b>	T0600100018
<b><u>Facility Name:</u></b>	ABF FREIGHT SYSTEMS
<b><u>File Name:</u></b>	GEO_Z.zip
<b><u>Organization Name:</u></b>	Trinity Source Group, Inc.
<b><u>Username:</u></b>	TRINITY SOURCE GROUP
<b><u>IP Address:</u></b>	69.198.129.110
<b><u>Submission Date/Time:</u></b>	1/29/2013 3:31:42 PM
<b><u>Confirmation Number:</u></b>	8834140837

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## **ATTACHMENT G**

**Certified Analytical Reports, Chain of Custody and  
Geotracker Upload Confirmation**



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

David Reinsma  
Trinity Source Group - Santa Cruz, CA  
500 Chestnut Street, Ste. 225  
Santa Cruz, CA 95060

## Report Summary

Monday December 31, 2012

Report Number: L612046

Samples Received: 12/19/12

Client Project: 154.004.007

Description: 154-ABF Oakland

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

T. Alan Harvill , ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,  
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,  
NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002,  
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,  
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,  
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

David Reinsma  
 Trinity Source Group - Santa Cruz,  
 500 Chestnut Street, Ste. 225  
 Santa Cruz, CA 95060

December 31, 2012

Date Received : December 19, 2012  
 Description : 154-ABF Oakland  
 Sample ID : MW-4 3 FT  
 Collected By : EC / JG  
 Collection Date : 12/17/12 00:00

ESC Sample # : L612046-01  
 Site ID :  
 Project # : 154.004.007

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Total Solids	85.5	0.0333	0.100	%		2540G	12/24/12	1
TPH (GC/FID) Low Fraction	U	0.11	0.58	mg/kg		8015D/GR	12/20/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	92.8			% Rec.		602/8015	12/20/12	5
Diesel Range Organics California C10-C22 Hydrocarbons	5.4	3.7	23.	mg/kg	J	8015	12/31/12	5
Surrogate Recovery o-Terphenyl	36.7			% Rec.	J2	8015	12/31/12	5
Volatiles - Oxygenates								
Benzene	U	0.0014	0.0058	mg/kg		8260B	12/20/12	5
1,2-Dibromoethane	U	0.0017	0.0058	mg/kg		8260B	12/20/12	5
1,2-Dichloroethane	U	0.0013	0.0058	mg/kg		8260B	12/20/12	5
Ethylbenzene	U	0.0015	0.0058	mg/kg		8260B	12/20/12	5
Naphthalene	U	0.0022	0.029	mg/kg		8260B	12/20/12	5
Toluene	U	0.0022	0.029	mg/kg		8260B	12/20/12	5
Xylenes, Total	U	0.0035	0.018	mg/kg		8260B	12/20/12	5
Di-isopropyl ether	U	0.0012	0.0058	mg/kg		8260B	12/20/12	5
Ethanol	U	0.24	0.58	mg/kg		8260B	12/20/12	5
Ethyl tert-butyl ether	U	0.0020	0.0058	mg/kg		8260B	12/20/12	5
Methyl tert-butyl ether	U	0.0011	0.0058	mg/kg		8260B	12/20/12	5
t-Amyl Alcohol	U	0.021	0.29	mg/kg		8260B	12/20/12	5
tert-Butyl alcohol	U	0.010	0.029	mg/kg		8260B	12/20/12	5
tert-Amyl Methyl Ether	U	0.0014	0.0058	mg/kg		8260B	12/20/12	5
Surrogate Recovery								
Toluene-d8	107.			% Rec.		8260B	12/20/12	5
Dibromofluoromethane	115.			% Rec.		8260B	12/20/12	5
4-Bromofluorobenzene	93.6			% Rec.		8260B	12/20/12	5

Results listed are dry weight basis.

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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L612046-01 (DROCA) - low surrogate confirms with first extraction



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

David Reinsma  
 Trinity Source Group - Santa Cruz,  
 500 Chestnut Street, Ste. 225  
 Santa Cruz, CA 95060

December 31, 2012

Date Received : December 19, 2012  
 Description : 154-ABF Oakland  
 Sample ID : MW-4 10 FT  
 Collected By : EC / JG  
 Collection Date : 12/17/12 00:00

ESC Sample # : L612046-02  
 Site ID :  
 Project # : 154.004.007

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Total Solids	77.3	0.0333	0.100	%		2540G	12/24/12	1
TPH (GC/FID) Low Fraction	41.	0.11	0.65	mg/kg		8015D/GR	12/23/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	96.4			% Rec.		602/8015	12/23/12	5
Diesel Range Organics California C10-C22 Hydrocarbons	48.	0.73	5.2	mg/kg		8015	12/31/12	1
Surrogate Recovery o-Terphenyl	36.8			% Rec.	J2	8015	12/31/12	1
Volatiles - Oxygenates								
Benzene	U	0.027	0.13	mg/kg		8260B	12/20/12	100
1,2-Dibromoethane	U	0.034	0.13	mg/kg		8260B	12/20/12	100
1,2-Dichloroethane	U	0.026	0.13	mg/kg		8260B	12/20/12	100
Ethylbenzene	U	0.030	0.13	mg/kg		8260B	12/20/12	100
Naphthalene	0.50	0.044	0.65	mg/kg	J	8260B	12/20/12	100
Toluene	U	0.043	0.65	mg/kg		8260B	12/20/12	100
Xylenes, Total	U	0.070	0.39	mg/kg		8260B	12/20/12	100
Di-isopropyl ether	U	0.025	0.13	mg/kg		8260B	12/20/12	100
Ethanol	U	4.9	13.	mg/kg		8260B	12/20/12	100
Ethyl tert-butyl ether	U	0.040	0.13	mg/kg		8260B	12/20/12	100
Methyl tert-butyl ether	U	0.021	0.13	mg/kg		8260B	12/20/12	100
t-Amyl Alcohol	U	0.42	6.5	mg/kg		8260B	12/20/12	100
tert-Butyl alcohol	U	0.20	0.65	mg/kg		8260B	12/20/12	100
tert-Amyl Methyl Ether	U	0.027	0.13	mg/kg		8260B	12/20/12	100
Surrogate Recovery								
Toluene-d8	109.			% Rec.		8260B	12/20/12	100
Dibromofluoromethane	114.			% Rec.		8260B	12/20/12	100
4-Bromofluorobenzene	105.			% Rec.		8260B	12/20/12	100

Results listed are dry weight basis.

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RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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L612046-02 (DROCA) - low surrogate confirms with first extraction

L612046-02 (V8260OXY) - Non-target compounds too high to run at a lower dilution.



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REPORT OF ANALYSIS

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December 31, 2012

Date Received : December 19, 2012  
 Description : 154-ABF Oakland  
 Sample ID : MW-3 3 FT  
 Collected By : EC / JG  
 Collection Date : 12/17/12 00:00

ESC Sample # : L612046-03  
 Site ID :  
 Project # : 154.004.007

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Total Solids	84.3	0.0333	0.100	%		2540G	12/24/12	1
TPH (GC/FID) Low Fraction	U	0.11	0.59	mg/kg		8015D/GR	12/22/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	93.4			% Rec.		602/8015	12/22/12	5
Diesel Range Organics California C10-C22 Hydrocarbons	U	3.7	24.	mg/kg	O	8015	12/27/12	5
Surrogate Recovery o-Terphenyl	57.0			% Rec.		8015	12/27/12	5
Volatiles - Oxygenates								
Benzene	U	0.0014	0.0059	mg/kg		8260B	12/20/12	5
1,2-Dibromoethane	U	0.0017	0.0059	mg/kg		8260B	12/20/12	5
1,2-Dichloroethane	U	0.0013	0.0059	mg/kg		8260B	12/20/12	5
Ethylbenzene	U	0.0015	0.0059	mg/kg		8260B	12/20/12	5
Naphthalene	U	0.0022	0.030	mg/kg		8260B	12/20/12	5
Toluene	U	0.0022	0.030	mg/kg		8260B	12/20/12	5
Xylenes, Total	U	0.0035	0.018	mg/kg		8260B	12/20/12	5
Di-isopropyl ether	U	0.0012	0.0059	mg/kg		8260B	12/20/12	5
Ethanol	U	0.24	0.59	mg/kg		8260B	12/20/12	5
Ethyl tert-butyl ether	U	0.0020	0.0059	mg/kg		8260B	12/20/12	5
Methyl tert-butyl ether	U	0.0011	0.0059	mg/kg		8260B	12/20/12	5
t-Amyl Alcohol	U	0.021	0.30	mg/kg		8260B	12/20/12	5
tert-Butyl alcohol	U	0.010	0.030	mg/kg		8260B	12/20/12	5
tert-Amyl Methyl Ether	U	0.0014	0.0059	mg/kg		8260B	12/20/12	5
Surrogate Recovery								
Toluene-d8	108.			% Rec.		8260B	12/20/12	5
Dibromofluoromethane	113.			% Rec.		8260B	12/20/12	5
4-Bromofluorobenzene	100.			% Rec.		8260B	12/20/12	5

Results listed are dry weight basis.

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REPORT OF ANALYSIS

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December 31, 2012

Date Received : December 19, 2012  
 Description : 154-ABF Oakland  
 Sample ID : MW-3 7 FT  
 Collected By : EC / JG  
 Collection Date : 12/17/12 00:00

ESC Sample # : L612046-04  
 Site ID :  
 Project # : 154.004.007

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Total Solids	80.6	0.0333	0.100	%		2540G	12/24/12	1
TPH (GC/FID) Low Fraction	U	0.11	0.62	mg/kg		8015D/GR	12/22/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	93.2			% Rec.		602/8015	12/22/12	5
Diesel Range Organics California C10-C22 Hydrocarbons	8.1	0.73	5.0	mg/kg		8015	12/31/12	1
Surrogate Recovery o-Terphenyl	52.3			% Rec.		8015	12/31/12	1
Volatiles - Oxygenates								
Benzene	U	0.0014	0.0062	mg/kg		8260B	12/20/12	5
1,2-Dibromoethane	U	0.0017	0.0062	mg/kg		8260B	12/20/12	5
1,2-Dichloroethane	U	0.0013	0.0062	mg/kg		8260B	12/20/12	5
Ethylbenzene	U	0.0015	0.0062	mg/kg		8260B	12/20/12	5
Naphthalene	U	0.0022	0.031	mg/kg		8260B	12/20/12	5
Toluene	U	0.0022	0.031	mg/kg		8260B	12/20/12	5
Xylenes, Total	U	0.0035	0.019	mg/kg		8260B	12/20/12	5
Di-isopropyl ether	U	0.0012	0.0062	mg/kg		8260B	12/20/12	5
Ethanol	U	0.24	0.62	mg/kg		8260B	12/20/12	5
Ethyl tert-butyl ether	U	0.0020	0.0062	mg/kg		8260B	12/20/12	5
Methyl tert-butyl ether	U	0.0011	0.0062	mg/kg		8260B	12/20/12	5
t-Amyl Alcohol	U	0.021	0.31	mg/kg		8260B	12/20/12	5
tert-Butyl alcohol	U	0.010	0.031	mg/kg		8260B	12/20/12	5
tert-Amyl Methyl Ether	U	0.0014	0.0062	mg/kg		8260B	12/20/12	5
Surrogate Recovery								
Toluene-d8	109.			% Rec.		8260B	12/20/12	5
Dibromofluoromethane	114.			% Rec.		8260B	12/20/12	5
4-Bromofluorobenzene	98.1			% Rec.		8260B	12/20/12	5

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December 31, 2012

Date Received : December 19, 2012  
 Description : 154-ABF Oakland  
 Sample ID : B-12 3 FT  
 Collected By : EC / JG  
 Collection Date : 12/17/12 00:00

ESC Sample # : L612046-05  
 Site ID :  
 Project # : 154.004.007

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Total Solids	86.9	0.0333	0.100	%		2540G	12/24/12	1
TPH (GC/FID) Low Fraction	0.28	0.11	0.58	mg/kg	J	8015D/GR	12/23/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	98.4			% Rec.		602/8015	12/23/12	5
Diesel Range Organics California C10-C22 Hydrocarbons	U	3.7	23.	mg/kg	O	8015	12/27/12	5
Surrogate Recovery o-Terphenyl	54.4			% Rec.		8015	12/27/12	5
Volatiles - Oxygenates								
Benzene	U	0.0014	0.0058	mg/kg		8260B	12/20/12	5
1,2-Dibromoethane	U	0.0017	0.0058	mg/kg		8260B	12/20/12	5
1,2-Dichloroethane	U	0.0013	0.0058	mg/kg		8260B	12/20/12	5
Ethylbenzene	U	0.0015	0.0058	mg/kg		8260B	12/20/12	5
Naphthalene	U	0.0022	0.029	mg/kg		8260B	12/20/12	5
Toluene	U	0.0022	0.029	mg/kg		8260B	12/20/12	5
Xylenes, Total	U	0.0035	0.017	mg/kg		8260B	12/20/12	5
Di-isopropyl ether	U	0.0012	0.0058	mg/kg		8260B	12/20/12	5
Ethanol	U	0.24	0.58	mg/kg		8260B	12/20/12	5
Ethyl tert-butyl ether	U	0.0020	0.0058	mg/kg		8260B	12/20/12	5
Methyl tert-butyl ether	U	0.0011	0.0058	mg/kg		8260B	12/20/12	5
t-Amyl Alcohol	U	0.021	0.29	mg/kg		8260B	12/20/12	5
tert-Butyl alcohol	U	0.010	0.029	mg/kg		8260B	12/20/12	5
tert-Amyl Methyl Ether	U	0.0014	0.0058	mg/kg		8260B	12/20/12	5
Surrogate Recovery								
Toluene-d8	108.			% Rec.		8260B	12/20/12	5
Dibromofluoromethane	112.			% Rec.		8260B	12/20/12	5
4-Bromofluorobenzene	98.6			% Rec.		8260B	12/20/12	5

Results listed are dry weight basis.

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December 31, 2012

Date Received : December 19, 2012  
 Description : 154-ABF Oakland  
 Sample ID : B-12 6 FT  
 Collected By : EC / JG  
 Collection Date : 12/17/12 00:00

ESC Sample # : L612046-06  
 Site ID :  
 Project # : 154.004.007

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Total Solids	72.7	0.0333	0.100	%		2540G	12/24/12	1
TPH (GC/FID) Low Fraction	U	0.11	0.69	mg/kg		8015D/GR	12/22/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	93.1			% Rec.		602/8015	12/22/12	5
Diesel Range Organics California C10-C22 Hydrocarbons	U	150	1100	mg/kg	O	8015	12/27/12	200
Surrogate Recovery o-Terphenyl	66.5			% Rec.		8015	12/27/12	200
Volatiles - Oxygenates								
Benzene	U	0.0014	0.0069	mg/kg		8260B	12/20/12	5
1,2-Dibromoethane	U	0.0017	0.0069	mg/kg		8260B	12/20/12	5
1,2-Dichloroethane	U	0.0013	0.0069	mg/kg		8260B	12/20/12	5
Ethylbenzene	U	0.0015	0.0069	mg/kg		8260B	12/20/12	5
Naphthalene	U	0.0022	0.034	mg/kg		8260B	12/20/12	5
Toluene	U	0.0022	0.034	mg/kg		8260B	12/20/12	5
Xylenes, Total	U	0.0035	0.021	mg/kg		8260B	12/20/12	5
Di-isopropyl ether	U	0.0012	0.0069	mg/kg		8260B	12/20/12	5
Ethanol	U	0.24	0.69	mg/kg		8260B	12/20/12	5
Ethyl tert-butyl ether	U	0.0020	0.0069	mg/kg		8260B	12/20/12	5
Methyl tert-butyl ether	U	0.0011	0.0069	mg/kg		8260B	12/20/12	5
t-Amyl Alcohol	U	0.021	0.34	mg/kg		8260B	12/20/12	5
tert-Butyl alcohol	U	0.010	0.034	mg/kg		8260B	12/20/12	5
tert-Amyl Methyl Ether	U	0.0014	0.0069	mg/kg		8260B	12/20/12	5
Surrogate Recovery								
Toluene-d8	109.			% Rec.		8260B	12/20/12	5
Dibromofluoromethane	116.			% Rec.		8260B	12/20/12	5
4-Bromofluorobenzene	97.4			% Rec.		8260B	12/20/12	5

Results listed are dry weight basis.

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RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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REPORT OF ANALYSIS

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December 31, 2012

Date Received : December 19, 2012  
 Description : 154-ABF Oakland

ESC Sample # : L612046-07

Sample ID : B-12

Site ID :

Collected By : EC / JG  
 Collection Date : 12/17/12 00:00

Project # : 154.004.007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
TPH (GC/FID) Low Fraction	44.	31.	100	ug/l	J	8015D/G	12/24/12	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	100.			% Rec.		8015D/G	12/24/12	1
Volatile Organics								
Benzene	U	0.33	1.0	ug/l		8260B	12/20/12	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	12/20/12	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	12/20/12	1
Ethylbenzene	0.63	0.38	1.0	ug/l	J	8260B	12/20/12	1
Naphthalene	11.	0.44	5.0	ug/l		8260B	12/20/12	1
Toluene	U	0.78	5.0	ug/l		8260B	12/20/12	1
Xylenes, Total	1.9	1.1	3.0	ug/l	J	8260B	12/20/12	1
Di-isopropyl ether	U	0.32	1.0	ug/l		8260B	12/20/12	1
Ethanol	U	42.	100	ug/l		8260B	12/20/12	1
Ethyl tert-butyl ether	U	0.27	1.0	ug/l		8260B	12/20/12	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	12/20/12	1
tert-Butyl alcohol	U	2.4	5.0	ug/l		8260B	12/20/12	1
tert-Amyl Methyl Ether	U	0.26	1.0	ug/l		8260B	12/20/12	1
Surrogate Recovery								
Toluene-d8	99.8			% Rec.		8260B	12/20/12	1
Dibromofluoromethane	101.			% Rec.		8260B	12/20/12	1
4-Bromofluorobenzene	111.			% Rec.		8260B	12/20/12	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	440	25.	100	ug/l		8015	12/22/12	1
Surrogate Recovery o-Terphenyl	95.8			% Rec.		8015	12/22/12	1

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MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

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 Trinity Source Group - Santa Cruz,  
 500 Chestnut Street, Ste. 225  
 Santa Cruz, CA 95060

December 31, 2012

Date Received : December 19, 2012  
 Description : 154-ABF Oakland  
 Sample ID : DRUM-COMP  
 Collected By : EC / JG  
 Collection Date : 12/17/12 00:00

ESC Sample # : L612046-08  
 Site ID :  
 Project # : 154.004.007

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Total Solids	81.8	0.0333	0.100	%		2540G	12/24/12	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	7.0	3.7	24.	mg/kg	J	8015	12/31/12	5
Surrogate Recovery								
o-Terphenyl	36.6			% Rec.	J2	8015	12/31/12	5
Volatiles - Oxygenates								
Benzene	U	0.0014	0.0061	mg/kg		8260B	12/20/12	5
1,2-Dibromoethane	U	0.0017	0.0061	mg/kg		8260B	12/20/12	5
1,2-Dichloroethane	U	0.0013	0.0061	mg/kg		8260B	12/20/12	5
Ethylbenzene	U	0.0015	0.0061	mg/kg		8260B	12/20/12	5
Naphthalene	0.0052	0.0022	0.030	mg/kg	J	8260B	12/20/12	5
Toluene	U	0.0022	0.030	mg/kg		8260B	12/20/12	5
Xylenes, Total	U	0.0035	0.018	mg/kg		8260B	12/20/12	5
Di-isopropyl ether	U	0.0012	0.0061	mg/kg		8260B	12/20/12	5
Ethanol	U	0.24	0.61	mg/kg		8260B	12/20/12	5
Ethyl tert-butyl ether	U	0.0020	0.0061	mg/kg		8260B	12/20/12	5
Methyl tert-butyl ether	U	0.0011	0.0061	mg/kg		8260B	12/20/12	5
t-Amyl Alcohol	U	0.021	0.30	mg/kg		8260B	12/20/12	5
tert-Butyl alcohol	U	0.010	0.030	mg/kg		8260B	12/20/12	5
tert-Amyl Methyl Ether	U	0.0014	0.0061	mg/kg		8260B	12/20/12	5
Surrogate Recovery								
Toluene-d8	109.			% Rec.		8260B	12/20/12	5
Dibromofluoromethane	114.			% Rec.		8260B	12/20/12	5
4-Bromofluorobenzene	98.2			% Rec.		8260B	12/20/12	5

Results listed are dry weight basis.

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

Note:

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The reported analytical results relate only to the sample submitted

Reported: 12/31/12 13:42 Printed: 12/31/12 13:43

L612046-08 (DROCA) - low surrogate confirms with first extraction

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L612046-01	WG630206	SAMP	C10-C22 Hydrocarbons	R2495857	J
	WG630206	SAMP	o-Terphenyl	R2495857	J2
L612046-02	WG630206	SAMP	o-Terphenyl	R2495857	J2
	WG629097	SAMP	Naphthalene	R2488217	J
L612046-03	WG629184	SAMP	C10-C22 Hydrocarbons	R2493759	O
L612046-05	WG629184	SAMP	C10-C22 Hydrocarbons	R2493759	O
	WG629727	SAMP	TPH (GC/FID) Low Fraction	R2492325	J
L612046-06	WG629184	SAMP	C10-C22 Hydrocarbons	R2493759	O
L612046-07	WG629586	SAMP	TPH (GC/FID) Low Fraction	R2492277	J
	WG629106	SAMP	Ethylbenzene	R2487917	J
	WG629106	SAMP	Xylenes, Total	R2487917	J
L612046-08	WG630206	SAMP	C10-C22 Hydrocarbons	R2495857	J
	WG630206	SAMP	o-Terphenyl	R2495857	J2
	WG629097	SAMP	Naphthalene	R2488217	J

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
12/31/12 at 13:43:10

TSR Signing Reports: 358  
R5 - Desired TAT

QC2MODCN and EDD - Geotracker EDF. Log all full-scan VOC waters as V8260LL. Log PAHs as PAHSIM.  
Log DRO as DROCA. All samples get MDL/RDL reporting.

Sample: L612046-01 Account: TRINITYSCCA Received: 12/19/12 09:30 Due Date: 12/27/12 00:00 RPT Date: 12/31/12 13:42  
DROCA = Silica Gel Cleanup  
Sample: L612046-02 Account: TRINITYSCCA Received: 12/19/12 09:30 Due Date: 12/27/12 00:00 RPT Date: 12/31/12 13:42  
DROCA = Silica Gel Cleanup  
Sample: L612046-03 Account: TRINITYSCCA Received: 12/19/12 09:30 Due Date: 12/27/12 00:00 RPT Date: 12/31/12 13:42  
DROCA = Silica Gel Cleanup  
Sample: L612046-04 Account: TRINITYSCCA Received: 12/19/12 09:30 Due Date: 12/27/12 00:00 RPT Date: 12/31/12 13:42  
DROCA = Silica Gel Cleanup  
Sample: L612046-05 Account: TRINITYSCCA Received: 12/19/12 09:30 Due Date: 12/27/12 00:00 RPT Date: 12/31/12 13:42  
DROCA = Silica Gel Cleanup  
Sample: L612046-06 Account: TRINITYSCCA Received: 12/19/12 09:30 Due Date: 12/27/12 00:00 RPT Date: 12/31/12 13:42  
DROCA = Silica Gel Cleanup  
Sample: L612046-07 Account: TRINITYSCCA Received: 12/19/12 09:30 Due Date: 12/27/12 00:00 RPT Date: 12/31/12 13:42  
DROCA = Silica Gel Cleanup  
Sample: L612046-08 Account: TRINITYSCCA Received: 12/19/12 09:30 Due Date: 12/27/12 00:00 RPT Date: 12/31/12 13:42  
DROCA = Silica Gel Cleanup

Trinity Source Group, Inc.  
500 Chestnut St. ste 225  
Santa Cruz, CA 95060

Billing Information:

Trinity Source Group, Inc.  
500 Chestnut St. Ste 225  
Santa Cruz, CA 95060

Report to:

Dave Reinsma

Email to:

labstrinity@gmail.com

Analysis/Container/Preservative

TPHgro 8015  
TPHdiesel w/Si Gel Cleanup 8015  
BTEX, MTBE, TBA, DIPE, ETBE, TAME, EDB, EDC, -8260  
Naphthalene-8260

C080

Chain of Custody  
Page 1 of 1



L.A.B. S.C.I.E.N.C.E.S

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859  
Phone: (615) 758-5858  
Fax: (615) 758-5859

Project Description: 154-ABF Oakland City/State Collected: Oakland, CA

Phone: 831.426.5600 Client Project #: 154.004.007 ESC Key:  
FAX: 831.426.5602

Collected by: EC/JG Site/Facility ID#: P.O.#:

Collected by (signature): *[Signature]* **Rush?** ( Lab MUST Be Notified )  
 \_\_\_ Same Day ..... 200%  
 \_\_\_ Next Day ..... 100%  
 \_\_\_ Two Day ..... 50%  
 \_\_\_ Three Day ..... 25%  
 Date Results Needed:  
 Email? \_\_\_ No \_\_\_ Yes  
 FAX? \_\_\_ No \_\_\_ Yes  
 Immediately Packed on Ice N Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TPHgro 8015	TPHdiesel w/Si Gel Cleanup 8015	BTEX, MTBE, TBA, DIPE, ETBE, TAME, EDB, EDC, -8260	Naphthalene-8260	Remarks/Contaminant	Sample # (lab only)
MW-4 @ 3'	Grab	SS	3'	12.17.12		1	X	X	X	X		LG1204601
MW-4 @ 10'	Grab	SS	10'	12.17.12		1	X	X	X	X		LG1204602
MW-3 @ 3'	Grab	SS	3'	12.17.12		1	X	X	X	X		03
MW-3 @ 7'	Grab	SS	7'	12.17.12		1	X	X	X	X		04
B-12 @ 3'	Grab	SS	3'	12.17.12		1	X	X	X	X		05
B-12 @ 6'	Grab	SS	6'	12.17.12		1	X	X	X	X		06
B-12	Grab	GW		12.17.12		1	X	X	X	X		07
Drum-Comp	Comp	SS		12.17.12		1	X	X				08

\*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks:

8022 3756 6759

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) <i>[Signature]</i> ERIC CHOI	Date: 12-18-12	Time: 1400	Received by: (Signature)	Samples returned via: <input checked="" type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only) <i>[Signature]</i>
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.30	Bottles Received: 13
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 12-19-12	Time: 09:30
				pH Checked:	NCF:



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Eric Choi  
Trinity Source Group - Santa Cruz, CA  
500 Chestnut Street, Ste. 225  
Santa Cruz, CA 95060

### Report Summary

Wednesday January 16, 2013

Report Number: L614282

Samples Received: 01/08/13

Client Project: 154.001.001

Description: ABF Freight Systems Inc.

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
Jared Willis , ESC Representative

#### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,  
FL - E87487, GA - 923, IN - C-IN-01, KY - 90010, KYUST - 0016,  
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,  
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,  
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,  
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

Eric Choi  
 Trinity Source Group - Santa Cruz,  
 500 Chestnut Street, Ste. 225  
 Santa Cruz, CA 95060

January 16, 2013

Date Received : January 08, 2013  
 Description : ABF Freight Systems Inc.

ESC Sample # : L614282-01

Sample ID : MW-3

Site ID :

Collected By : Bill Rice  
 Collection Date : 01/07/13 12:15

Project # : 154.001.001

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
TPH - Oil & Grease	U	720	10000	ug/l		1664A	01/08/13	1
TPH (GC/FID) Low Fraction	43.	31.	100	ug/l	JJ5	8015D/G	01/09/13	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.8			% Rec.		8015D/G	01/09/13	1
<b>Volatile Organics</b>								
Benzene	U	0.33	1.0	ug/l		8260B	01/10/13	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	01/10/13	1
Toluene	U	0.78	5.0	ug/l		8260B	01/10/13	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	01/10/13	1
Di-isopropyl ether	U	0.32	1.0	ug/l		8260B	01/10/13	1
Ethanol	U	42.	100	ug/l		8260B	01/10/13	1
Ethyl tert-butyl ether	U	0.27	1.0	ug/l		8260B	01/10/13	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	01/10/13	1
tert-Butyl alcohol	U	2.4	5.0	ug/l		8260B	01/10/13	1
tert-Amyl Methyl Ether	U	0.26	1.0	ug/l		8260B	01/10/13	1
<b>Surrogate Recovery</b>								
Toluene-d8	107.			% Rec.		8260B	01/10/13	1
Dibromofluoromethane	112.			% Rec.		8260B	01/10/13	1
4-Bromofluorobenzene	94.7			% Rec.		8260B	01/10/13	1
<b>Diesel Range Organics California</b>								
C10-C22 Hydrocarbons	300	33.	100	ug/l		3511/80	01/14/13	1
C22-C32 Hydrocarbons	U	33.	100	ug/l		3511/80	01/14/13	1
C32-C40 Hydrocarbons	U	33.	100	ug/l		3511/80	01/14/13	1
<b>Surrogate Recovery</b>								
o-Terphenyl	59.3			% Rec.		3511/80	01/14/13	1
<b>Polynuclear Aromatic Hydrocarbons</b>								
Anthracene	U	0.066	0.25	ug/l		8270C-S	01/14/13	5
Acenaphthene	0.18	0.041	0.25	ug/l	J	8270C-S	01/14/13	5
Acenaphthylene	U	0.054	0.25	ug/l		8270C-S	01/14/13	5
Benzo(a)anthracene	0.092	0.062	0.25	ug/l	J	8270C-S	01/14/13	5
Benzo(a)pyrene	U	0.079	0.25	ug/l		8270C-S	01/14/13	5
Benzo(b)fluoranthene	U	0.096	0.25	ug/l		8270C-S	01/14/13	5
Benzo(g,h,i)perylene	U	0.078	0.25	ug/l		8270C-S	01/14/13	5
Benzo(k)fluoranthene	U	0.13	0.25	ug/l		8270C-S	01/14/13	5
Chrysene	U	0.072	0.25	ug/l		8270C-S	01/14/13	5
Dibenz(a,h)anthracene	U	0.023	0.25	ug/l		8270C-S	01/14/13	5
Fluoranthene	U	0.082	0.25	ug/l		8270C-S	01/14/13	5
Fluorene	0.32	0.045	0.25	ug/l		8270C-S	01/14/13	5
Indeno(1,2,3-cd)pyrene	U	0.037	0.25	ug/l		8270C-S	01/14/13	5

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

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Est. 1970

REPORT OF ANALYSIS

Eric Choi  
 Trinity Source Group - Santa Cruz,  
 500 Chestnut Street, Ste. 225  
 Santa Cruz, CA 95060

January 16, 2013

Date Received : January 08, 2013  
 Description : ABF Freight Systems Inc.

ESC Sample # : L614282-01

Sample ID : MW-3

Site ID :

Collected By : Bill Rice  
 Collection Date : 01/07/13 12:15

Project # : 154.001.001

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Naphthalene	4.3	0.062	1.3	ug/l		8270C-S	01/14/13	5
Phenanthrene	0.12	0.092	0.25	ug/l	J	8270C-S	01/14/13	5
Pyrene	U	0.078	0.25	ug/l		8270C-S	01/14/13	5
1-Methylnaphthalene	2.2	0.094	1.3	ug/l		8270C-S	01/14/13	5
2-Methylnaphthalene	1.2	0.078	1.3	ug/l	J	8270C-S	01/14/13	5
2-Chloronaphthalene	U	0.082	1.3	ug/l		8270C-S	01/14/13	5
Surrogate Recovery								
Nitrobenzene-d5	80.5			%	Rec.	8270C-S	01/14/13	5
2-Fluorobiphenyl	63.8			%	Rec.	8270C-S	01/14/13	5
p-Terphenyl-d14	83.8			%	Rec.	8270C-S	01/14/13	5

U = ND (Not Detected)

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MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

Eric Choi  
 Trinity Source Group - Santa Cruz,  
 500 Chestnut Street, Ste. 225  
 Santa Cruz, CA 95060

January 16, 2013

Date Received : January 08, 2013  
 Description : ABF Freight Systems Inc.

ESC Sample # : L614282-02

Sample ID : MW-4

Site ID :

Collected By : Bill Rice  
 Collection Date : 01/07/13 11:30

Project # : 154.001.001

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
TPH - Oil & Grease	U	720	10000	ug/l		1664A	01/08/13	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	01/09/13	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.0			% Rec.		8015D/G	01/09/13	1
Volatile Organics								
Benzene	U	0.33	1.0	ug/l		8260B	01/10/13	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	01/10/13	1
Toluene	U	0.78	5.0	ug/l		8260B	01/10/13	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	01/10/13	1
Di-isopropyl ether	U	0.32	1.0	ug/l		8260B	01/10/13	1
Ethanol	U	42.	100	ug/l		8260B	01/10/13	1
Ethyl tert-butyl ether	U	0.27	1.0	ug/l		8260B	01/10/13	1
Methyl tert-butyl ether	2.1	0.37	1.0	ug/l		8260B	01/10/13	1
tert-Butyl alcohol	U	2.4	5.0	ug/l		8260B	01/10/13	1
tert-Amyl Methyl Ether	U	0.26	1.0	ug/l		8260B	01/10/13	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	01/10/13	1
Dibromofluoromethane	114.			% Rec.		8260B	01/10/13	1
4-Bromofluorobenzene	97.2			% Rec.		8260B	01/10/13	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	540	33.	100	ug/l		3511/80	01/14/13	1
C22-C32 Hydrocarbons	U	33.	100	ug/l		3511/80	01/14/13	1
C32-C40 Hydrocarbons	U	33.	100	ug/l		3511/80	01/14/13	1
Surrogate Recovery								
o-Terphenyl	82.3			% Rec.		3511/80	01/14/13	1
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.066	0.25	ug/l		8270C-S	01/14/13	5
Acenaphthene	0.37	0.041	0.25	ug/l		8270C-S	01/14/13	5
Acenaphthylene	U	0.054	0.25	ug/l		8270C-S	01/14/13	5
Benzo(a)anthracene	0.095	0.062	0.25	ug/l	J	8270C-S	01/14/13	5
Benzo(a)pyrene	U	0.079	0.25	ug/l		8270C-S	01/14/13	5
Benzo(b)fluoranthene	U	0.096	0.25	ug/l		8270C-S	01/14/13	5
Benzo(g,h,i)perylene	U	0.078	0.25	ug/l		8270C-S	01/14/13	5
Benzo(k)fluoranthene	U	0.13	0.25	ug/l		8270C-S	01/14/13	5
Chrysene	U	0.072	0.25	ug/l		8270C-S	01/14/13	5
Dibenz(a,h)anthracene	U	0.023	0.25	ug/l		8270C-S	01/14/13	5
Fluoranthene	U	0.082	0.25	ug/l		8270C-S	01/14/13	5
Fluorene	0.26	0.045	0.25	ug/l		8270C-S	01/14/13	5
Indeno(1,2,3-cd)pyrene	U	0.037	0.25	ug/l		8270C-S	01/14/13	5

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

Eric Choi  
 Trinity Source Group - Santa Cruz,  
 500 Chestnut Street, Ste. 225  
 Santa Cruz, CA 95060

January 16, 2013

Date Received : January 08, 2013  
 Description : ABF Freight Systems Inc.

ESC Sample # : L614282-02

Sample ID : MW-4

Site ID :

Collected By : Bill Rice  
 Collection Date : 01/07/13 11:30

Project # : 154.001.001

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Naphthalene	1.2	0.062	1.3	ug/l	J	8270C-S	01/14/13	5
Phenanthrene	0.098	0.092	0.25	ug/l	J	8270C-S	01/14/13	5
Pyrene	U	0.078	0.25	ug/l		8270C-S	01/14/13	5
1-Methylnaphthalene	2.1	0.094	1.3	ug/l		8270C-S	01/14/13	5
2-Methylnaphthalene	0.76	0.078	1.3	ug/l	J	8270C-S	01/14/13	5
2-Chloronaphthalene	U	0.082	1.3	ug/l		8270C-S	01/14/13	5
Surrogate Recovery								
Nitrobenzene-d5	93.1			%	Rec.	8270C-S	01/14/13	5
2-Fluorobiphenyl	74.9			%	Rec.	8270C-S	01/14/13	5
p-Terphenyl-d14	90.6			%	Rec.	8270C-S	01/14/13	5

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

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Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L614282-01	WG631574	SAMP	TPH (GC/FID) Low Fraction	R2502439	JJ5
	WG631655	SAMP	Acenaphthene	R2505945	J
	WG631655	SAMP	Benzo(a)anthracene	R2505945	J
	WG631655	SAMP	Phenanthrene	R2505945	J
	WG631655	SAMP	2-Methylnaphthalene	R2505945	J
L614282-02	WG631655	SAMP	Benzo(a)anthracene	R2505945	J
	WG631655	SAMP	Naphthalene	R2505945	J
	WG631655	SAMP	Phenanthrene	R2505945	J
	WG631655	SAMP	2-Methylnaphthalene	R2505945	J
	WG631655	SAMP	2-Methylnaphthalene	R2505945	J

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
01/16/13 at 05:51:55

TSR Signing Reports: 358  
R5 - Desired TAT

QC2MODCN and EDD - Geotracker EDF. Log all full-scan VOC waters as V8260LL. Log PAHs as PAHSIM.  
Log DRO as DROCA. All samples get MDL/RDL reporting.

Sample: L614282-01 Account: TRINITYSCCA Received: 01/08/13 09:00 Due Date: 01/15/13 00:00 RPT Date: 01/16/13 05:51  
DROCAERLVI needs silica gel treatment. V8260OXY = BTEXM + oxys.  
Sample: L614282-02 Account: TRINITYSCCA Received: 01/08/13 09:00 Due Date: 01/15/13 00:00 RPT Date: 01/16/13 05:51  
DROCAERLVI needs silica gel treatment. V8260OXY = BTEXM + oxys.

Trinity Source Group  
 500 Chestnut St., Ste 225  
 Santa Cruz, CA, 95060

Billing Information:  
 Accounts Payable  
 Trinity Source Group  
 500 Chestnut Street, Suite 225  
 Santa Cruz, CA 95060

Report to: labstrinity@gmail.com

Email to: labstrinity@gmail.com

Analysis/Container/Preservative

DROCAERL VI	- 40ml Amb - HCL-BT
DROCAERL VI	- Silica G 40ml Amb - HCL - BT
GRO	- 40ml Amb HCL
SV8270 PAHSIM	- 100ml Amb - No Press
TPHOGHEX	- 1L- Clr - Add HCL Silica Gel
V8260LL	(Only report BTEX/MTBE/Oxygenates/ Naphthalene/EDB/EDC) - 40ml Amb - HCL

Chain of Custody  
 Page 1 of 1



12065 Lebanon Road  
 Mt. Juliet, TN 37122

Phone: (800) 767-5859  
 Phone: (615) 758-5858  
 Fax: (615) 758-5859  
 F073

Project Description: ABF Freight Systems, Inc. City/State Collected: Oakland, CA  
 Phone: (831) 426-5600 Client Project #: 154. ESC Key: TrinitySCCA-154001  
 FAX: (831) 426-5602 Collected by: Bill Rice Site/Facility ID#: P.O.#:

Collected by (signature): Rush? (Lab MUST Be Notified)  
 Same Day.....200%  
 Next Day.....100%  
 Two Day.....50%  
 Three Day.....25%  
 Date Results Needed:  
 Email? No  Yes  
 FAX?  No Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	DROCAERL VI	DROCAERL VI	GRO	SV8270 PAHSIM	TPHOGHEX	V8260LL	Remarks/Contaminant	Sample # (lab only)
MW-3		GW		1/7/13	1215	14	X	Y	X	Y	X	Y		L614282-01
MW-4		GW		1/7/13	1130	14	X	Y	Y	Y	Y	Y		02

\*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other  
 Remarks: 4875 5518 1293 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature)	Date: 1/7/12	Time: 1530	Received by: (Signature)	Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 31.0	Bottles Received: 28
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1-8-13	Time: 0900
				pH Checked: 22	NCF:



## Analytical Report

Trinity Source Group Inc  500 Chestnut St, Ste. 225  Santa Cruz, CA 95060	Client Project ID: #154.004; ABF Freight	Date Sampled: 12/17/12
		Date Received: 12/17/12
	Client Contact: Dave Reinsma	Date Reported: 12/21/12
	Client P.O.:	Date Completed: 12/21/12

**WorkOrder: 1212454**

December 21, 2012

Dear Dave:

Enclosed within are:

- 1) The results of the **4** analyzed samples from your project: **#154.004; ABF Freight**,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
 Laboratory Manager  
 McC Campbell Analytical, Inc.

*The analytical results relate only to the items tested.*

1212454



**McCAMPBELL ANALYTICAL INC.**  
 1534 WILLOW PASS ROAD / PITTSBURG, CA 94565-1701  
 Website: [www.mccampbell.com](http://www.mccampbell.com) / Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**

**TURN AROUND TIME**       
 RUSH 24 HR 48 HR 72 HR 5 DAY  
 EDF Required? Coelt (Normal) No Write On (DW) No

Report To: David Remsma Bill To: Trinity

Company: Trinity Source Group, Inc  
 500 Chestnut Street, Suite 225  
 Santa Cruz, CA E-Mail: labstrinity@gmail.com  
 Tele: (831) 426-5600 Fax: (831) 426-5602

Project #: 154.004 Project Name: ABF Freight

Project Location: 4575 Tidewater Ave; Oakland, CA

Sampler Signature: *[Signature]*

Pressurized By	Date	Pressurization Gas	
		N2	He

Helium Shroud SN#:

Other:

Notes: **LOW LEVELS!!**  
 Detection Limits: TPHg - 280 ug/m<sup>3</sup>, Benzene - 2.8 ug/m<sup>3</sup>  
 PCE - 13.8 ug/m<sup>3</sup>, Napthalene - 2.4 ug/m<sup>3</sup>

Field Sample ID (Location)	Collection		Canister SN#	Manifold / Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum					
	Date	Time						Initial	Final	Receipt	Final (psi)		
SVP-1	12/17/15	10:25	E: 1210	Summa	TPHg + VOCs (TO-15)								
SVP-1					He, O <sub>2</sub> , CH <sub>4</sub> , CO <sub>2</sub> (194 LOD) (%)								
SVP-1	12/17/15	12:10	E: 1310	Sorbent Tube ↳ HL @ Flow (ca. 7 ml/min for 1 hour)	Napthalene (TO-17)								
SVP-2	12/17/15	12:15	E: 1220	Summa	TPHg + VOCs (TO-15)								
SVP-2					He, O <sub>2</sub> , CH <sub>4</sub> , CO <sub>2</sub> (194 LOD) (%)								
SVP-2	12/17/15	1:30	E: 1410	Sorbent Tube ↳ HL @ Flow (ca. 7 ml/min for 1 hour)	Napthalene (TO-17)								

Run Helium 1st and call if He

Relinquished By: *[Signature]* Date: 12/17/15 Time: 1:40 Received By: *[Signature]*

Temp (°C): \_\_\_\_\_ Work Order #: \_\_\_\_\_ IS 75%

Relinquished By: *[Signature]* Date: 12/17/15 Time: 1:50 Received By: *[Signature]*

Equipment Condition: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

Shipped Via: \_\_\_\_\_



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

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1212454**

**ClientCode: TSGS**

- WaterTrax  
  WriteOn  
  EDF  
  Excel  
  EQUIS  
  Email  
  HardCopy  
  ThirdParty  
  J-flag

**Report to:**

Dave Reinsma  
 Trinity Source Group Inc  
 500 Chestnut St, Ste. 225  
 Santa Cruz, CA 95060  
 (831) 426-5600    FAX: (831) 486-5602

Email: dar@tsgcorp.net; labstrinity@gmail.com  
 cc:  
 PO:  
 ProjectNo: #154.004; ABF Freight

**Bill to:**

Allan  
 Trinity Source Group Inc  
 500 Chestnut St, Ste. 225  
 Santa Cruz, CA 95060  
 afm@tsgcorp.net

**Requested TAT:**

**5 days**

**Date Received: 12/17/2012**

**Date Printed: 12/17/2012**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1212454-001	SVP-1	Soil Gas	12/17/2012 12:10	<input type="checkbox"/>	A	A	A										
1212454-002	SVP-1	Sorbent Tube	12/17/2012 13:10	<input type="checkbox"/>				A									
1212454-003	SVP-2	Soil Gas	12/17/2012 12:20	<input type="checkbox"/>	A												
1212454-004	SVP-2	Sorbent Tube	12/17/2012 14:10	<input type="checkbox"/>				A									

**Test Legend:**

1	HELIUM_LC_SOILGAS(%)	2	PRHELIUM SHROUD	3	PRPUMP	4	TO17_ST(UGM3)	5	
6		7		8		9		10	
11		12							

**Prepared by: Maria Venegas**

**Comments:**

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



### Sample Receipt Checklist

Client Name: **Trinity Source Group Inc** Date and Time Received: **12/17/2012 4:17:56 PM**  
 Project Name: **#154.004; ABF Freight** LogIn Reviewed by: **Maria Venegas**  
 WorkOrder N°: **1212454** Matrix: Soil Gas/Sorbent Tube Carrier: Rob Pringle (MAI Courier)

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

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

All samples received within holding time? Yes  No   
 Container/Temp Blank temperature Cooler Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted   
 Sample labels checked for correct preservation? Yes  No   
 Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA   
 Samples Received on Ice? Yes  No

\* NOTE: If the "No" box is checked, see comments below.

-----  
 Comments:





Trinity Source Group Inc  500 Chestnut St, Ste. 225  Santa Cruz, CA 95060	Client Project ID: #154.004; ABF Freight	Date Sampled: 12/17/12
	Client Contact: Dave Reinsma	Date Received: 12/17/12
	Client P.O.:	Date Extracted: 12/20/12
		Date Analyzed: 12/20/12

**Volatile Organic Compounds in µg/m<sup>3</sup>\***

Extraction Method: TO17

Analytical Method: TO17

Work Order: 1212454

Lab ID	1212454-002A	1212454-004A			Reporting Limit for DF =1
Client ID	SVP-1	SVP-2			
Matrix	ST	ST			
DF	1	1			
Sample Volume (L)	4.00	4.00			ST      W

Compound	Concentration				µg/m <sup>3</sup>	ug/L
	TPH-Diesel (C10-C23)	ND	ND			125
Naphthalene	ND	ND			0.6	NA

**Surrogate Recoveries (%)**

%SS3:	111	111			
-------	-----	-----	--	--	--

<b>Comments</b>					
-----------------	--	--	--	--	--

\*Samples reported in µg/m<sup>3</sup>; reporting limit may change due to variable volume of air.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



**QC SUMMARY REPORT FOR ASTM D 1946-90**

W.O. Sample Matrix: Soilgas

QC Matrix: Soilgas

BatchID: 73355

WorkOrder: 1212454

EPA Method: ASTM D 1946-90		Extraction: ASTM D 1946-90					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	%	%	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Helium	N/A	0.010	N/A	N/A	N/A	102	N/A	N/A	60 - 140	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

BATCH 73355 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212454-001A	12/17/12 12:10 PM	12/18/12	12/18/12 2:38 PM	1212454-003A	12/17/12 12:20 PM	12/18/12	12/18/12 2:51 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$   
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR TO17

W.O. Sample Matrix: Sorbent Tube

QC Matrix: Sorbent Tube

BatchID: 73498

WorkOrder: 1212454

Analyte	Extraction: TO17		Spiked Sample ID: N/A						
	Sample µg/m³	Spiked µg/m³	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	Acceptance Criteria (%)		
							MS / MSD	RPD	LCS
Benzene	N/A	100	N/A	N/A	N/A	87.5	N/A	N/A	60 - 140
Bromobenzene	N/A	100	N/A	N/A	N/A	85.2	N/A	N/A	60 - 140
Bromoform	N/A	100	N/A	N/A	N/A	99.2	N/A	N/A	60 - 140
sec-Butyl benzene	N/A	100	N/A	N/A	N/A	90.1	N/A	N/A	60 - 140
tert-Butyl benzene	N/A	100	N/A	N/A	N/A	87.5	N/A	N/A	60 - 140
Chlorobenzene	N/A	100	N/A	N/A	N/A	90.2	N/A	N/A	60 - 140
2-Chlorotoluene	N/A	100	N/A	N/A	N/A	91.6	N/A	N/A	60 - 140
4-Chlorotoluene	N/A	100	N/A	N/A	N/A	87.9	N/A	N/A	60 - 140
1,2-Dibromo-3-chloropropane	N/A	100	N/A	N/A	N/A	95.9	N/A	N/A	60 - 140
1,2-Dichlorobenzene	N/A	100	N/A	N/A	N/A	81.4	N/A	N/A	60 - 140
1,3-Dichlorobenzene	N/A	100	N/A	N/A	N/A	83.4	N/A	N/A	60 - 140
1,4-Dichlorobenzene	N/A	100	N/A	N/A	N/A	84.1	N/A	N/A	60 - 140
1,2-Dichloroethane (1,2-DCA)	N/A	100	N/A	N/A	N/A	117	N/A	N/A	60 - 140
1,3-Dichloropropane	N/A	100	N/A	N/A	N/A	101	N/A	N/A	60 - 140
Ethylbenzene	N/A	100	N/A	N/A	N/A	95.5	N/A	N/A	60 - 140
Hexachlorobutadiene	N/A	100	N/A	N/A	N/A	74.6	N/A	N/A	60 - 140
Isopropylbenzene	N/A	100	N/A	N/A	N/A	92.6	N/A	N/A	60 - 140
4-Isopropyl toluene	N/A	100	N/A	N/A	N/A	89.4	N/A	N/A	60 - 140
Naphthalene	N/A	100	N/A	N/A	N/A	93.4	N/A	N/A	60 - 140
n-Propyl benzene	N/A	100	N/A	N/A	N/A	89.9	N/A	N/A	60 - 140
Styrene	N/A	100	N/A	N/A	N/A	94.1	N/A	N/A	60 - 140
1,1,1,2-Tetrachloroethane	N/A	100	N/A	N/A	N/A	112	N/A	N/A	60 - 140
1,1,2,2-Tetrachloroethane	N/A	100	N/A	N/A	N/A	102	N/A	N/A	60 - 140
Tetrachloroethene	N/A	100	N/A	N/A	N/A	63.1	N/A	N/A	60 - 140
Toluene	N/A	100	N/A	N/A	N/A	83	N/A	N/A	60 - 140
1,2,3-Trichlorobenzene	N/A	100	N/A	N/A	N/A	75.7	N/A	N/A	60 - 140
1,2,4-Trichlorobenzene	N/A	100	N/A	N/A	N/A	75.7	N/A	N/A	60 - 140
1,1,2-Trichloroethane	N/A	100	N/A	N/A	N/A	95.7	N/A	N/A	60 - 140
Trichloroethene	N/A	100	N/A	N/A	N/A	68.3	N/A	N/A	60 - 140
1,2,3-Trichloropropane	N/A	100	N/A	N/A	N/A	92.4	N/A	N/A	60 - 140
1,2,4-Trimethylbenzene	N/A	100	N/A	N/A	N/A	89.6	N/A	N/A	60 - 140

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



### QC SUMMARY REPORT FOR TO17

W.O. Sample Matrix: Sorbent Tube

QC Matrix: Sorbent Tube

BatchID: 73498

WorkOrder: 1212454

EPA Method: TO17		Extraction: TO17					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/m³	µg/m³	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
1,3,5-Trimethylbenzene	N/A	100	N/A	N/A	N/A	90.2	N/A	N/A	60 - 140	
Xylenes, Total	N/A	300	N/A	N/A	N/A	94.2	N/A	N/A	60 - 140	
%SS1:	N/A	100	N/A	N/A	N/A	124	N/A	N/A	60 - 140	
%SS3:	N/A	100	N/A	N/A	N/A	110	N/A	N/A	60 - 140	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

#### BATCH 73498 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212454-002A	12/17/12 1:10 PM	12/20/12	12/20/12 6:32 PM	1212454-004A	12/17/12 2:10 PM	12/20/12	12/20/12 7:27 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$   
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.  
 # surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.  
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



## Analytical Report

Trinity Source Group Inc  500 Chestnut St, Ste. 225  Santa Cruz, CA 95060	Client Project ID: #154	Date Sampled: 01/17/13
		Date Received: 01/17/13
	Client Contact: Debra Moses	Date Reported: 01/30/13
	Client P.O.:	Date Completed: 01/30/13

**WorkOrder: 1301435**

January 31, 2013

Dear Debra:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#154**,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

***The analytical results relate only to the items tested.***

1301435



**McCAMPBELL ANALYTICAL INC.**  
 1534 WILLOW PASS ROAD / PITTSBURG, CA 94565-1701  
 Website: [www.mccampbell.com](http://www.mccampbell.com) / Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**  
 TURN AROUND TIME       
 RUSH 24 HR 48 HR 72 HR 5 DAY  
 EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Debra Moser Bill To:

Company: Trinity Source Group, Inc  
Santa Cruz, CA 95060  
 E-Mail:

Tele: (831) 426-5600 Fax: (831) 426-5600

Project #: 154 Project Name:

Project Location:

Sampler Signature:

Lab Use Only

Pressurized By	Date	Pressurization Gas	
		N2	He

Helium Shroud SN#:

Other:

Notes:  
Report Helium result, continue analysis if below 5%

Field Sample ID (Location)	Collection		Canister SN#	Manifold / Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum				
	Date	Time						Initial	Final	Receipt	Final (psi)	
SVP-1	1/17/13		1345-1351		He, O <sub>2</sub> , CH <sub>4</sub> , CO <sub>2</sub>	ASTM-1946D ✓						
SVP-2	1/17/13		1020-1040		He, O <sub>2</sub> , CH <sub>4</sub> , CO <sub>2</sub>	ASTM-1946D ✓						
<del>SVP-1</del>					TO-15 TPitg + VOCs	✓						
<del>SVP-2</del>					TO-15 TPitg + VOCs	✓						
SVP-1 (Sorbent tube)	1/17/13		1138-1238		TO-17 Napthalene only (sorbent tube)							

Relinquished By: [Signature] Date: 1/17/13 Time: 1400 Received By: [Signature]

Relinquished By: [Signature] Date: 1-17-13 Time: 1839 Received By: [Signature]

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

Temp (°C) : \_\_\_\_\_ Work Order #: \_\_\_\_\_  
 Equipment Condition: \_\_\_\_\_  
 Shipped Via: \_\_\_\_\_



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

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1301435**

**ClientCode: TSGS**

- WaterTrax  
  WriteOn  
  EDF  
  Excel  
  EQUIS  
  Email  
  HardCopy  
  ThirdParty  
  J-flag

**Report to:**

Debra Moses  
 Trinity Source Group Inc  
 500 Chestnut St, Ste. 225  
 Santa Cruz, CA 95060  
 (831) 426-5600    FAX: (831) 486-5602

Email: labstrinity@gmail.com  
 cc:  
 PO:  
 ProjectNo: #154

**Bill to:**

Allan  
 Trinity Source Group Inc  
 500 Chestnut St, Ste. 225  
 Santa Cruz, CA 95060  
 afm@tsgcorp.net

**Requested TAT:**

**5 days**

**Date Received: 01/17/2013**

**Date Printed: 01/18/2013**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1301435-001	SVP-1	Soil Gas	1/17/2013 13:45	<input type="checkbox"/>	A	A											
1301435-002	SVP-2	Soil Gas	1/17/2013 10:20	<input type="checkbox"/>	A	A											
1301435-003	SVP-1 11:38	Sorbent Tube	1/17/2013 11:38	<input type="checkbox"/>			A										

**Test Legend:**

1	TMOSPHERICGAS_SG(UL/	2	TO15+GAS_SOIL(UG/M3)	3	TO17_ST(UGM3)	4		5	
6		7		8		9		10	
11		12							

The following SamplIDs: 001A, 002A contain testgroup.

**Prepared by: Zoraida Cortez**

**Comments:**

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



### Sample Receipt Checklist

Client Name: **Trinity Source Group Inc**

Date and Time Received: **1/17/2013 7:33:00 PM**

Project Name: **#154**

LogIn Reviewed by: **Zoraida Cortez**

WorkOrder N°: **1301435**

Matrix: Soil Gas/Sorbent Tube

Carrier: David Valles (MAI Courier)

**Chain of Custody (COC) Information**

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

**Sample Receipt Information**

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

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

- All samples received within holding time? Yes  No
- Container/Temp Blank temperature Cooler Temp: NA
- Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
- Sample labels checked for correct preservation? Yes  No
- Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
- Samples Received on Ice? Yes  No

\* NOTE: If the "No" box is checked, see comments below.

-----  
 Comments:



**McC Campbell Analytical, Inc.**

*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269  
<http://www.mcccampbell.com> / E-mail: [main@mcccampbell.com](mailto:main@mcccampbell.com)

Trinity Source Group Inc 500 Chestnut St, Ste. 225 Santa Cruz, CA 95060	Client Project ID: #154	Date Sampled: 01/17/13
		Date Received: 01/17/13
	Client Contact: Debra Moses	Date Reported: 01/29/13
	Client P.O.:	Date Completed: 01/29/13

**Work Order: 1301435**

January 29, 2013

**CASE NARRATIVE REGARDING TO-15 ANALYSIS**

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.

In an effort to attain the lowest reporting limits possible for the majority of the TO-15 target list, high level compounds may be analyzed using EPA Method 8260B.

Polymer (Tedlar) bags are not recommended for TO15 samples. The disadvantages are listed in Appendix B of the DTSC Advisory of April 2012.



**McC Campbell Analytical, Inc.**

*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269  
http://www.mccampbell.com / E-mail: main@mccampbell.com

Trinity Source Group Inc  500 Chestnut St, Ste. 225  Santa Cruz, CA 95060	Client Project ID: #154	Date Sampled: 01/17/13
		Date Received: 01/17/13
	Client Contact: Debra Moses	Date Extracted: 01/25/13-01/30/13
	Client P.O.:	Date Analyzed: 01/25/13-01/30/13

**Light Gases, Atmospheric\***

Extraction Method: ASTM D 1946-90

Analytical Method: ASTM D 1946-90

Work Order: 1301435

Lab ID	1301435-001A				Reporting Limit for DF = 1 and Pressure Ratio (Final/Initial) = 2
Client ID	SVP-1				
Matrix	Soil Gas				
Initial Pressure (psia)	13.64				
Final Pressure (psia)	27.18				
DF	1				Soil Gas      W

Compound	Concentration				µL/L	ug/L
Carbon Dioxide	8300				20	NA
Methane	ND				2.0	NA
Oxygen	200,000				500	NA

**Surrogate Recoveries (%)**

%SS:	N/A			
------	-----	--	--	--

**Comments**

\* vapor samples are reported in µL/L.

%SS = Percent Recovery of Surrogate Standard  
DF = Dilution Factor





Table with client information: Trinity Source Group Inc, Client Project ID: #154, Date Sampled: 01/17/13, Date Received: 01/17/13, Client Contact: Debra Moses, Date Extracted: 01/24/13, Santa Cruz, CA 95060, Client P.O., Date Analyzed: 01/24/13

TPH gas + Volatile Organic Compounds in µg/m³\*

Extraction Method: TO15

Analytical Method: TO15

Work Order: 1301435

Summary table with columns: Lab ID (1301435-001A), Client ID (SVP-1), Matrix (Soil Gas), Initial Pressure (psia) (13.64), Final Pressure (psia) (27.18)

Main data table with columns: Compound, Concentration \*, DF, Reporting Limit, Compound, Concentration \*, DF, Reporting Limit. Lists various compounds like Acetone, Benzene, Chloroform, etc.

Surrogate Recoveries (%)

Table showing surrogate recoveries: %SS1: 87, %SS2: 95, %SS3: 75

Comments:

\*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor





**QC SUMMARY REPORT FOR ASTM D 1946-90**

W.O. Sample Matrix: SoilGas

QC Matrix: Air

BatchID: 74248

WorkOrder: 1301435

EPA Method: ASTM D 1946-90		Extraction: ASTM D 1946-90					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µL/L	µL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Carbon Dioxide	N/A	100	N/A	N/A	N/A	79.9	N/A	N/A	70 - 130	
Methane	N/A	10	N/A	N/A	N/A	94.5	N/A	N/A	70 - 130	
Oxygen	N/A	7000	N/A	N/A	N/A	81.7	N/A	N/A	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

BATCH 74248 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1301435-001A	01/17/13 1:45 PM	01/25/13	01/25/13 6:22 PM	1301435-001A	01/17/13 1:45 PM	01/28/13	01/28/13 5:17 PM
1301435-001A	01/17/13 1:45 PM	01/30/13	01/30/13 9:52 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ;  $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**QC SUMMARY REPORT FOR ASTM D 1946-90**

W.O. Sample Matrix: Soilgas

QC Matrix: Soilgas

BatchID: 74142

WorkOrder: 1301435

EPA Method: ASTM D 1946-90		Extraction: ASTM D 1946-90					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	%	%	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Helium	N/A	0.010	N/A	N/A	N/A	99.3	N/A	N/A	60 - 140	
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE										

BATCH 74142 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1301435-001A	01/17/13 1:45 PM	01/22/13	01/22/13 2:36 PM	1301435-002A	01/17/13 10:20 AM	01/23/13	01/23/13 3:03 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$ ;  $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR TO15

W.O. Sample Matrix: Soilgas

QC Matrix: Soilgas

BatchID: 74184

WorkOrder: 1301435

Analyte	Extraction: TO15		Spiked Sample ID: N/A						
	Sample nL/L	Spiked nL/L	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	Acceptance Criteria (%)		
							MS / MSD	RPD	LCS
Acrylonitrile	N/A	25	N/A	N/A	N/A	73.3	N/A	N/A	60 - 140
tert-Amyl methyl ether (TAME)	N/A	25	N/A	N/A	N/A	106	N/A	N/A	60 - 140
Benzene	N/A	25	N/A	N/A	N/A	103	N/A	N/A	60 - 140
Benzyl chloride	N/A	25	N/A	N/A	N/A	101	N/A	N/A	60 - 140
Bromodichloromethane	N/A	25	N/A	N/A	N/A	112	N/A	N/A	60 - 140
Bromoform	N/A	25	N/A	N/A	N/A	103	N/A	N/A	60 - 140
t-Butyl alcohol (TBA)	N/A	25	N/A	N/A	N/A	75.4	N/A	N/A	60 - 140
Carbon Disulfide	N/A	25	N/A	N/A	N/A	68	N/A	N/A	60 - 140
Carbon Tetrachloride	N/A	25	N/A	N/A	N/A	112	N/A	N/A	60 - 140
Chlorobenzene	N/A	25	N/A	N/A	N/A	101	N/A	N/A	60 - 140
Chloroethane	N/A	25	N/A	N/A	N/A	124	N/A	N/A	60 - 140
Chloroform	N/A	25	N/A	N/A	N/A	107	N/A	N/A	60 - 140
Chloromethane	N/A	25	N/A	N/A	N/A	94	N/A	N/A	60 - 140
Dibromochloromethane	N/A	25	N/A	N/A	N/A	112	N/A	N/A	60 - 140
1,2-Dibromo-3-chloropropane	N/A	25	N/A	N/A	N/A	122	N/A	N/A	60 - 140
1,2-Dibromoethane (EDB)	N/A	25	N/A	N/A	N/A	104	N/A	N/A	60 - 140
1,3-Dichlorobenzene	N/A	25	N/A	N/A	N/A	98.9	N/A	N/A	60 - 140
1,4-Dichlorobenzene	N/A	25	N/A	N/A	N/A	84	N/A	N/A	60 - 140
Dichlorodifluoromethane	N/A	25	N/A	N/A	N/A	88.6	N/A	N/A	60 - 140
1,1-Dichloroethane	N/A	25	N/A	N/A	N/A	107	N/A	N/A	60 - 140
1,2-Dichloroethane (1,2-DCA)	N/A	25	N/A	N/A	N/A	112	N/A	N/A	60 - 140
cis-1,2-Dichloroethene	N/A	25	N/A	N/A	N/A	106	N/A	N/A	60 - 140
trans-1,2-Dichloroethene	N/A	25	N/A	N/A	N/A	105	N/A	N/A	60 - 140
1,2-Dichloropropane	N/A	25	N/A	N/A	N/A	107	N/A	N/A	60 - 140
cis-1,3-Dichloropropene	N/A	25	N/A	N/A	N/A	106	N/A	N/A	60 - 140
trans-1,3-Dichloropropene	N/A	25	N/A	N/A	N/A	111	N/A	N/A	60 - 140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	N/A	25	N/A	N/A	N/A	83.6	N/A	N/A	60 - 140
Diisopropyl ether (DIPE)	N/A	25	N/A	N/A	N/A	116	N/A	N/A	60 - 140
1,4-Dioxane	N/A	25	N/A	N/A	N/A	100	N/A	N/A	60 - 140
Ethyl acetate	N/A	25	N/A	N/A	N/A	111	N/A	N/A	60 - 140
Ethyl tert-butyl ether (ETBE)	N/A	25	N/A	N/A	N/A	109	N/A	N/A	60 - 140

LCS = Laboratory Control Sample

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer



### QC SUMMARY REPORT FOR TO15

W.O. Sample Matrix: Soilgas

QC Matrix: Soilgas

BatchID: 74184

WorkOrder: 1301435

EPA Method: TO15		Extraction: TO15					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Ethylbenzene	N/A	25	N/A	N/A	N/A	93.8	N/A	N/A	60 - 140	
Freon 113	N/A	25	N/A	N/A	N/A	67.8	N/A	N/A	60 - 140	
Hexachlorobutadiene	N/A	25	N/A	N/A	N/A	89.6	N/A	N/A	60 - 140	
4-Methyl-2-pentanone (MIBK)	N/A	25	N/A	N/A	N/A	111	N/A	N/A	60 - 140	
Methyl-t-butyl ether (MTBE)	N/A	25	N/A	N/A	N/A	105	N/A	N/A	60 - 140	
Methylene chloride	N/A	25	N/A	N/A	N/A	66	N/A	N/A	60 - 140	
Naphthalene	N/A	25	N/A	N/A	N/A	107	N/A	N/A	60 - 140	
Styrene	N/A	25	N/A	N/A	N/A	98.4	N/A	N/A	60 - 140	
1,1,1,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	109	N/A	N/A	60 - 140	
1,1,2,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	105	N/A	N/A	60 - 140	
Tetrachloroethene	N/A	25	N/A	N/A	N/A	98	N/A	N/A	60 - 140	
Tetrahydrofuran	N/A	25	N/A	N/A	N/A	95.6	N/A	N/A	60 - 140	
Toluene	N/A	25	N/A	N/A	N/A	101	N/A	N/A	60 - 140	
1,2,4-Trichlorobenzene	N/A	25	N/A	N/A	N/A	94.4	N/A	N/A	60 - 140	
1,1,1-Trichloroethane	N/A	25	N/A	N/A	N/A	111	N/A	N/A	60 - 140	
1,1,2-Trichloroethane	N/A	25	N/A	N/A	N/A	105	N/A	N/A	60 - 140	
Trichloroethene	N/A	25	N/A	N/A	N/A	104	N/A	N/A	60 - 140	
1,2,4-Trimethylbenzene	N/A	25	N/A	N/A	N/A	100	N/A	N/A	60 - 140	
1,3,5-Trimethylbenzene	N/A	25	N/A	N/A	N/A	99.8	N/A	N/A	60 - 140	
Vinyl Chloride	N/A	25	N/A	N/A	N/A	78.1	N/A	N/A	60 - 140	
%SS1:	N/A	500	N/A	N/A	N/A	89	N/A	N/A	60 - 140	
%SS2:	N/A	500	N/A	N/A	N/A	92	N/A	N/A	60 - 140	
%SS3:	N/A	500	N/A	N/A	N/A	90	N/A	N/A	60 - 140	
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE										

BATCH 74184 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1301435-001A	01/17/13 1:45 PM	01/24/13	01/24/13 4:28 PM				

LCS = Laboratory Control Sample  
Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

 QA/QC Officer



**QC SUMMARY REPORT FOR TO17**

W.O. Sample Matrix: Sorbent Tube

QC Matrix: Sorbent Tube

BatchID: 74309

WorkOrder: 1301435

EPA Method: TO17		Extraction: TO17					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/m³	µg/m³	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Naphthalene	N/A	100	N/A	N/A	N/A	96.6	N/A	N/A	60 - 140	
%SS3:	N/A	100	N/A	N/A	N/A	111	N/A	N/A	60 - 140	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

BATCH 74309 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1301435-003A	01/17/13 11:38 AM	01/28/13	01/28/13 3:27 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$ ;  $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.  
 # surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.  
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



David Reinsma  
Trinity Source Group  
500 Chestnut St, Suite 225  
Santa Cruz, California 95060  
Tel: 831-426-5600; Cell 831-227 4724  
Fax: 831-426-5602  
Email: dar@tsgcorp.net  
RE: SVP-2 Re-Sample

Work Order No.: 1302008

Dear David Reinsma:

Torrent Laboratory, Inc. received 1 sample(s) on February 05, 2013 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

---

Patti Sandrock  
QA Officer

February 13, 2013

---

Date

**Date:** 2/13/2013

---

**Client:** Trinity Source Group

**Project:** SVP-2 Re-Sample

**Work Order:** 1302008

### **CASE NARRATIVE**

---

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

Analytical Comments for TO-15SIM and TO-15 standard analysis, Note: Due to issues encountered in the field during sample collection, two canisters were submitted for the same sample. Both canisters were analyzed and reported for TO-15SIM and TO-15 Std (for those compounds with concentrations too high to accurately measure by SIM) but only one sample is subject to invoicing. The second sample was processed as a QC sample. TPH as GRO is reported only on sample -001.



## Sample Result Summary

Report prepared for: David Reinsma  
Trinity Source Group

Date Received: 02/05/13

Date Reported: 02/13/13

SVP-2

1302008-001A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
Dichlorodifluoromethane	TO15SIM	1	0.018	0.05	0.40
Chloromethane	TO15SIM	1	0.0088	0.02	0.27
1,3-Butadiene	TO15SIM	1	0.022	0.04	0.24
Bromomethane	TO15SIM	1	0.0082	0.02	0.51
Chloroethane	TO15SIM	1	0.0021	0.01	0.055
Isopropyl Alcohol	TO15SIM	1	0.016	1	0.68
Methylene Chloride	TO15SIM	1	0.015	0.04	0.042
Carbon disulfide	TO15SIM	1	0.0028	0.02	0.34
Vinyl Acetate	TO15SIM	1	0.0050	0.02	0.91
1,1,1-Trichloroethane	TO15SIM	1	0.0083	0.03	0.039
Benzene	TO15SIM	1	0.034	0.06	0.15
Heptane	TO15SIM	1	0.0033	0.02	2.3
Trichloroethylene	TO15SIM	1	0.011	0.03	2.1
Methyl Isobutyl Ketone (MIBK)	TO15SIM	1	0.0064	0.02	0.35
Toluene	TO15SIM	1	0.0042	0.02	0.21
2-Hexanone	TO15SIM	1	0.0089	0.02	0.49
m,p-Xylene	TO15SIM	1	0.0042	0.02	0.095
o-Xylene	TO15SIM	1	0.0022	0.02	0.052
1,3,5-Trimethylbenzene	TO15SIM	1	0.0035	0.02	0.020
1,2,4-Trimethylbenzene	TO15SIM	1	0.0033	0.02	0.064
1,2-Dichlorobenzene	TO15SIM	1	0.0056	0.03	0.0060
Naphthalene	TO15SIM	1	0.0047	0.03	0.12
Carbon Dioxide	D1946	2.26	0.057	0.057	1.22
Oxygen	D1946	2.26	0.0565	0.0565	17.3
TPH-Gasoline	ETO15	2.26	64	130	450
1,1-Difluoroethane	ETO15	2.26	1.1	3.1	426
Acetone	ETO15	2.26	2.0	22	67.1
2-Butanone (MEK)	ETO15	2.26	1.4	3.4	9.90
Tetrachloroethylene	ETO15	2.26	2.0	7.7	971



## Sample Result Summary

Report prepared for: David Reinsma  
Trinity Source Group

Date Received: 02/05/13

Date Reported: 02/13/13

1302008-002A

SVP-2

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
Carbon Dioxide	D1946	1.87	0.047	0.047	1.21
Oxygen	D1946	1.87	0.0468	0.0468	17.1
1,1-Difluoroethane	ETO15	1.87	0.93	2.5	12.5
Acetone	ETO15	1.87	1.6	18	20.4
Tetrachloroethylene	ETO15	1.87	1.7	6.4	901
Dichlorodifluoromethane	TO15SIM	1	0.018	0.05	0.39
Chloromethane	TO15SIM	1	0.0088	0.02	0.095
Bromomethane	TO15SIM	1	0.0082	0.02	0.55
Chloroethane	TO15SIM	1	0.0021	0.01	0.016
tert-Butanol	TO15SIM	1	0.011	0.03	0.51
Methylene Chloride	TO15SIM	1	0.015	0.04	0.42
Carbon disulfide	TO15SIM	1	0.0028	0.02	2.0
Chloroform	TO15SIM	1	0.00813	0.02	0.0588
1,1,1-Trichloroethane	TO15SIM	1	0.0083	0.03	0.055
Benzene	TO15SIM	1	0.034	0.06	0.090
Trichloroethylene	TO15SIM	1	0.011	0.03	2.3
Methyl Isobutyl Ketone (MIBK)	TO15SIM	1	0.0064	0.02	0.66
Toluene	TO15SIM	1	0.0042	0.02	0.091
2-Hexanone	TO15SIM	1	0.0089	0.02	0.70
m,p-Xylene	TO15SIM	1	0.0042	0.02	0.10
o-Xylene	TO15SIM	1	0.0022	0.02	0.069
1,3,5-Trimethylbenzene	TO15SIM	1	0.0035	0.02	0.039
1,2,4-Trimethylbenzene	TO15SIM	1	0.0033	0.02	0.083
Naphthalene	TO15SIM	1	0.0047	0.03	0.052



## SAMPLE RESULTS

Report prepared for: David Reinsma  
Trinity Source Group

Date Received: 02/05/13  
Date Reported: 02/13/13

Client Sample ID:	SVP-2	Lab Sample ID:	1302008-001A
Project Name/Location:	SVP-2 Re-Sample	Sample Matrix:	Air
Project Number:		Certified Clean WO # :	
Date/Time Sampled:	02/05/13 / 14:15	Received PSI :	10.8
Canister/Tube ID:	0467	Corrected PSI :	0.0
Collection Volume (L):	0.00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
1,1-Difluoroethane	ETO15	NA	02/12/13	2.26	1.1	3.1	426	157.78	E	413924	NA
Acetone	ETO15	NA	02/12/13	2.26	2.0	22	67.1	27.96		413924	NA
2-Butanone (MEK)	ETO15	NA	02/12/13	2.26	1.4	3.4	9.90	3.30		413924	NA
Tetrachloroethylene	ETO15	NA	02/12/13	2.26	2.0	7.7	971	142.79		413924	NA

**NOTE:** E-Estimated. Value outside of calibration range but within linear range (Leak check compound).

(S) 4-Bromofluorobenzene	ETO15	NA	02/12/13	2.26	65	135	83.7 %			413924	NA
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Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
TPH-Gasoline	ETO15	NA	02/12/13	2.26	64	130	450	127.84	x	413923	NA

**NOTE:** x-Not typical of Gasoline standard pattern. Result due to discrete peak (PCE).

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
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**The results shown below are reported using their MDL.**

Dichlorodifluoromethane	TO15SIM	NA	02/11/13	1	0.018	0.05	0.40	0.08		413913	NA
Chloromethane	TO15SIM	NA	02/11/13	1	0.0088	0.02	0.27	0.13		413913	NA
Vinyl Chloride	TO15SIM	NA	02/11/13	1	0.0037	0.01	ND	ND		413913	NA
1,3-Butadiene	TO15SIM	NA	02/11/13	1	0.022	0.04	0.24	0.11		413913	NA
Bromomethane	TO15SIM	NA	02/11/13	1	0.0082	0.02	0.51	0.13		413913	NA
Chloroethane	TO15SIM	NA	02/11/13	1	0.0021	0.01	0.055	0.02		413913	NA
Trichloromonofluoromethane	TO15SIM	NA	02/11/13	1	0.012	0.03	ND	ND		413913	NA
Isopropyl Alcohol	TO15SIM	NA	02/11/13	1	0.016	1	0.68	0.27	J	413913	NA
1,1-Dichloroethene	TO15SIM	NA	02/11/13	1	0.0068	0.02	ND	ND		413913	NA
tert-Butanol	TO15SIM	NA	02/11/13	1	0.011	0.03	ND	ND		413913	NA
Methylene Chloride	TO15SIM	NA	02/11/13	1	0.015	0.04	0.042	0.01		413913	NA
Freon 113	TO15SIM	NA	02/11/13	1	0.013	0.04	ND	ND		413913	NA
Carbon disulfide	TO15SIM	NA	02/11/13	1	0.0028	0.02	0.34	0.11		413913	NA
trans-1,2-Dichloroethene	TO15SIM	NA	02/11/13	1	0.0038	0.02	ND	ND		413913	NA
MTBE	TO15SIM	NA	02/11/13	1	0.0062	0.02	ND	ND		413913	NA
1,1-Dichloroethane	TO15SIM	NA	02/11/13	1	0.0050	0.02	ND	ND		413913	NA
Vinyl Acetate	TO15SIM	NA	02/11/13	1	0.0050	0.02	0.91	0.26		413913	NA
Hexane	TO15SIM	NA	02/11/13	1	0.0045	0.02	ND	ND		413913	NA
DIPE	TO15SIM	NA	02/11/13	1	0.0044	0.02	ND	ND		413913	NA



## SAMPLE RESULTS

**Report prepared for:** David Reinsma  
Trinity Source Group

**Date Received:** 02/05/13  
**Date Reported:** 02/13/13

<b>Client Sample ID:</b>	SVP-2	<b>Lab Sample ID:</b>	1302008-001A
<b>Project Name/Location:</b>	SVP-2 Re-Sample	<b>Sample Matrix:</b>	Air
<b>Project Number:</b>		<b>Certified Clean WO # :</b>	
<b>Date/Time Sampled:</b>	02/05/13 / 14:15	<b>Received PSI :</b>	10.8
<b>Canister/Tube ID:</b>	0467	<b>Corrected PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
cis-1,2-Dichloroethene	TO15SIM	NA	02/11/13	1	0.0041	0.02	ND	ND		413913	NA
Ethyl Acetate	TO15SIM	NA	02/11/13	1	0.0033	0.02	ND	ND		413913	NA
Chloroform	TO15SIM	NA	02/11/13	1	0.00813	0.02	ND	ND		413913	NA
ETBE	TO15SIM	NA	02/11/13	1	0.0048	0.02	ND	ND		413913	NA
Tetrahydrofuran	TO15SIM	NA	02/11/13	1	0.029	0.06	ND	ND		413913	NA
1,2-Dichloroethane (EDC)	TO15SIM	NA	02/11/13	1	0.0050	0.02	ND	ND		413913	NA
1,1,1-Trichloroethane	TO15SIM	NA	02/11/13	1	0.0083	0.03	0.039	0.01		413913	NA
Carbon Tetrachloride	TO15SIM	NA	02/11/13	1	0.0085	0.03	ND	ND		413913	NA
Benzene	TO15SIM	NA	02/11/13	1	0.034	0.06	0.15	0.05		413913	NA
TAME	TO15SIM	NA	02/11/13	1	0.0025	0.02	ND	ND		413913	NA
Heptane	TO15SIM	NA	02/11/13	1	0.0033	0.02	2.3	0.56		413913	NA
1,2-Dichloropropane	TO15SIM	NA	02/11/13	1	0.0047	0.02	ND	ND		413913	NA
Trichloroethylene	TO15SIM	NA	02/11/13	1	0.011	0.03	2.1	0.39		413913	NA
Bromodichloromethane	TO15SIM	NA	02/11/13	1	0.0056	0.03	ND	ND		413913	NA
1,4-Dioxane	TO15SIM	NA	02/11/13	1	0.011	0.02	ND	ND		413913	NA
cis-1,3-Dichloropropene	TO15SIM	NA	02/11/13	1	0.0036	0.02	ND	ND		413913	NA
Methyl Isobutyl Ketone (MIBK)	TO15SIM	NA	02/11/13	1	0.0064	0.02	0.35	0.09		413913	NA
trans-1,3-Dichloropropene	TO15SIM	NA	02/11/13	1	0.0040	0.02	ND	ND		413913	NA
1,1,2-Trichloroethane	TO15SIM	NA	02/11/13	1	0.00325	0.03	ND	ND		413913	NA
Toluene	TO15SIM	NA	02/11/13	1	0.0042	0.02	0.21	0.06		413913	NA

**NOTE:** Reporting limit was raised due to low canister pressure.



## SAMPLE RESULTS

**Report prepared for:** David Reinsma  
Trinity Source Group

**Date Received:** 02/05/13  
**Date Reported:** 02/13/13

<b>Client Sample ID:</b>	SVP-2	<b>Lab Sample ID:</b>	1302008-001A
<b>Project Name/Location:</b>	SVP-2 Re-Sample	<b>Sample Matrix:</b>	Air
<b>Project Number:</b>		<b>Certified Clean WO # :</b>	
<b>Date/Time Sampled:</b>	02/05/13 / 14:15	<b>Received PSI :</b>	10.8
<b>Canister/Tube ID:</b>	0467	<b>Corrected PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00		

*The results shown below are reported using their MDL.*

Compound	Method	NA	Date	DF	MDL	PQL	Results	Results	Lab	Analytical	Prep
			Analyzed		ug/m3	%	%	ppmv	Qualifier	Batch	Batch
2-Hexanone	TO15SIM	NA	02/11/13	1	0.0089	0.02	0.49	0.12		413913	NA
Dibromochloromethane	TO15SIM	NA	02/11/13	1	0.021	0.04	ND	ND		413913	NA
1,2-Dibromoethane (EDB)	TO15SIM	NA	02/11/13	1	0.0042	0.04	ND	ND		413913	NA
1,1,1,2-Tetrachloroethane	TO15SIM	NA	02/11/13	1	0.0090	0.03	ND	ND		413913	NA
Chlorobenzene	TO15SIM	NA	02/11/13	1	0.0023	0.005	ND	ND		413913	NA
Ethylbenzene	TO15SIM	NA	02/11/13	1	0.0023	0.02	ND	ND		413913	NA
m,p-Xylene	TO15SIM	NA	02/11/13	1	0.0042	0.02	0.095	0.02		413913	NA
Bromoform	TO15SIM	NA	02/11/13	1	0.033	0.1	ND	ND		413913	NA
Styrene	TO15SIM	NA	02/11/13	1	0.0031	0.02	ND	ND		413913	NA
1,1,2,2-Tetrachloroethane	TO15SIM	NA	02/11/13	1	0.0023	0.007	ND	ND		413913	NA
o-Xylene	TO15SIM	NA	02/11/13	1	0.0022	0.02	0.052	0.01		413913	NA
4-Ethyl toluene	TO15SIM	NA	02/11/13	1	0.0034	0.02	ND	ND		413913	NA
1,3,5-Trimethylbenzene	TO15SIM	NA	02/11/13	1	0.0035	0.02	0.020	0.00	J	413913	NA
1,2,4-Trimethylbenzene	TO15SIM	NA	02/11/13	1	0.0033	0.02	0.064	0.01		413913	NA
1,3-Dichlorobenzene	TO15SIM	NA	02/11/13	1	0.0056	0.03	ND	ND		413913	NA
1,4-Dichlorobenzene	TO15SIM	NA	02/11/13	1	0.0052	0.03	ND	ND		413913	NA
1,2-Dichlorobenzene	TO15SIM	NA	02/11/13	1	0.0056	0.03	0.0060	0.00	J	413913	NA
1,2,4-trichlorobenzene	TO15SIM	NA	02/11/13	1	0.066	0.04	ND	ND		413913	NA
Naphthalene	TO15SIM	NA	02/11/13	1	0.0047	0.03	0.12	0.02		413913	NA
Hexachlorobutadiene	TO15SIM	NA	02/11/13	1	0.11	0.2	ND	ND		413913	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL %	Results %	Results ppmv	Lab Qualifier	Analytical Batch	Prep Batch
Carbon Dioxide	D1946	NA	02/12/13	2.26	0.057	0.057	1.22			413915	NA
Oxygen	D1946	NA	02/12/13	2.26	0.0565	0.0565	17.3			413915	NA
Methane	D1946	NA	02/12/13	2.26	0.001	0.001	ND	ND		413915	NA



## SAMPLE RESULTS

**Report prepared for:** David Reinsma  
Trinity Source Group

**Date Received:** 02/05/13  
**Date Reported:** 02/13/13

<b>Client Sample ID:</b> SVP-2	<b>Lab Sample ID:</b> 1302008-002A
<b>Project Name/Location:</b> SVP-2 Re-Sample	<b>Sample Matrix:</b> Air
<b>Project Number:</b>	<b>Certified Clean WO # :</b>
<b>Date/Time Sampled:</b> 01/28/13 /	<b>Received PSI :</b> 0.0
<b>Canister/Tube ID:</b> 1250	<b>Corrected PSI :</b> 0.0
<b>Collection Volume (L):</b> 0.00	
<b>Tag Number:</b> SVP-2 re-sample	

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
1,1-Difluoroethane	ETO15	NA	02/12/13	1.87	0.93	2.5	12.5	4.63		413924	NA
Acetone	ETO15	NA	02/12/13	1.87	1.6	18	20.4	8.50		413924	NA
Tetrachloroethylene	ETO15	NA	02/12/13	1.87	1.7	6.4	901	132.50	E	413924	NA

**NOTE:** E-Estimated. Value outside of calibration range but within linear range.

(S) 4-Bromofluorobenzene	ETO15	NA	02/12/13	1.87	65	135	107 %			413924	NA
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Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Dichlorodifluoromethane	TO15SIM	NA	02/11/13	1	0.018	0.05	0.39	0.08		413913	NA
Chloromethane	TO15SIM	NA	02/11/13	1	0.0088	0.02	0.095	0.05		413913	NA
Vinyl Chloride	TO15SIM	NA	02/11/13	1	0.0037	0.01	ND	ND		413913	NA
1,3-Butadiene	TO15SIM	NA	02/11/13	1	0.022	0.04	ND	ND		413913	NA
Bromomethane	TO15SIM	NA	02/11/13	1	0.0082	0.02	0.55	0.14		413913	NA
Chloroethane	TO15SIM	NA	02/11/13	1	0.0021	0.01	0.016	0.01		413913	NA
Trichloromonofluoromethane	TO15SIM	NA	02/11/13	1	0.012	0.03	ND	ND		413913	NA
Isopropyl Alcohol	TO15SIM	NA	02/11/13	1	0.016	1	ND	ND		413913	NA
1,1-Dichloroethene	TO15SIM	NA	02/11/13	1	0.0068	0.02	ND	ND		413913	NA
tert-Butanol	TO15SIM	NA	02/11/13	1	0.011	0.03	0.51	0.17		413913	NA
Methylene Chloride	TO15SIM	NA	02/11/13	1	0.015	0.04	0.42	0.12		413913	NA
Freon 113	TO15SIM	NA	02/11/13	1	0.013	0.04	ND	ND		413913	NA
Carbon disulfide	TO15SIM	NA	02/11/13	1	0.0028	0.02	2.0	0.65		413913	NA
trans-1,2-Dichloroethene	TO15SIM	NA	02/11/13	1	0.0038	0.02	ND	ND		413913	NA
MTBE	TO15SIM	NA	02/11/13	1	0.0062	0.02	ND	ND		413913	NA
1,1-Dichloroethane	TO15SIM	NA	02/11/13	1	0.0050	0.02	ND	ND		413913	NA
Vinyl Acetate	TO15SIM	NA	02/11/13	1	0.0050	0.02	ND	ND		413913	NA
Hexane	TO15SIM	NA	02/11/13	1	0.0045	0.02	ND	ND		413913	NA
2-Butanone (MEK)	TO15SIM	NA	02/11/13	1	0.0028	0.02	ND	ND		413913	NA
DIPE	TO15SIM	NA	02/11/13	1	0.0044	0.02	ND	ND		413913	NA
cis-1,2-Dichloroethene	TO15SIM	NA	02/11/13	1	0.0041	0.02	ND	ND		413913	NA
Ethyl Acetate	TO15SIM	NA	02/11/13	1	0.0033	0.02	ND	ND		413913	NA
Chloroform	TO15SIM	NA	02/11/13	1	0.00813	0.02	0.0588	0.01		413913	NA
ETBE	TO15SIM	NA	02/11/13	1	0.0048	0.02	ND	ND		413913	NA
Tetrahydrofuran	TO15SIM	NA	02/11/13	1	0.029	0.06	ND	ND		413913	NA
1,2-Dichloroethane (EDC)	TO15SIM	NA	02/11/13	1	0.0050	0.02	ND	ND		413913	NA



## SAMPLE RESULTS

**Report prepared for:** David Reinsma  
Trinity Source Group

**Date Received:** 02/05/13  
**Date Reported:** 02/13/13

<b>Client Sample ID:</b>	SVP-2	<b>Lab Sample ID:</b>	1302008-002A
<b>Project Name/Location:</b>	SVP-2 Re-Sample	<b>Sample Matrix:</b>	Air
<b>Project Number:</b>		<b>Certified Clean WO # :</b>	
<b>Date/Time Sampled:</b>	01/28/13 /	<b>Received PSI :</b>	0.0
<b>Canister/Tube ID:</b>	1250	<b>Corrected PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00		
<b>Tag Number:</b>	SVP-2 re-sample		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
1,1,1-Trichloroethane	TO15SIM	NA	02/11/13	1	0.0083	0.03	0.055	0.01		413913	NA
Carbon Tetrachloride	TO15SIM	NA	02/11/13	1	0.0085	0.03	ND	ND		413913	NA
Benzene	TO15SIM	NA	02/11/13	1	0.034	0.06	0.090	0.03		413913	NA
TAME	TO15SIM	NA	02/11/13	1	0.0025	0.02	ND	ND		413913	NA
Heptane	TO15SIM	NA	02/11/13	1	0.0033	0.02	ND	ND		413913	NA
1,2-Dichloropropane	TO15SIM	NA	02/11/13	1	0.0047	0.02	ND	ND		413913	NA
Trichloroethylene	TO15SIM	NA	02/11/13	1	0.011	0.03	2.3	0.43		413913	NA
Bromodichloromethane	TO15SIM	NA	02/11/13	1	0.0056	0.03	ND	ND		413913	NA
1,4-Dioxane	TO15SIM	NA	02/11/13	1	0.011	0.02	ND	ND		413913	NA
cis-1,3-Dichloropropene	TO15SIM	NA	02/11/13	1	0.0036	0.02	ND	ND		413913	NA
Methyl Isobutyl Ketone (MIBK)	TO15SIM	NA	02/11/13	1	0.0064	0.02	0.66	0.16		413913	NA
trans-1,3-Dichloropropene	TO15SIM	NA	02/11/13	1	0.0040	0.02	ND	ND		413913	NA
1,1,2-Trichloroethane	TO15SIM	NA	02/11/13	1	0.00325	0.03	ND	ND		413913	NA
Toluene	TO15SIM	NA	02/11/13	1	0.0042	0.02	0.091	0.02		413913	NA
2-Hexanone	TO15SIM	NA	02/11/13	1	0.0089	0.02	0.70	0.17		413913	NA
Dibromochloromethane	TO15SIM	NA	02/11/13	1	0.021	0.04	ND	ND		413913	NA
1,2-Dibromoethane (EDB)	TO15SIM	NA	02/11/13	1	0.0042	0.04	ND	ND		413913	NA
1,1,1,2-Tetrachloroethane	TO15SIM	NA	02/11/13	1	0.0090	0.03	ND	ND		413913	NA
Chlorobenzene	TO15SIM	NA	02/11/13	1	0.0023	0.005	ND	ND		413913	NA
Ethylbenzene	TO15SIM	NA	02/11/13	1	0.0023	0.02	ND	ND		413913	NA
m,p-Xylene	TO15SIM	NA	02/11/13	1	0.0042	0.02	0.10	0.02		413913	NA
Bromoform	TO15SIM	NA	02/11/13	1	0.033	0.1	ND	ND		413913	NA
Styrene	TO15SIM	NA	02/11/13	1	0.0031	0.02	ND	ND		413913	NA
1,1,2,2-Tetrachloroethane	TO15SIM	NA	02/11/13	1	0.0023	0.007	ND	ND		413913	NA
o-Xylene	TO15SIM	NA	02/11/13	1	0.0022	0.02	0.069	0.02		413913	NA
4-Ethyl toluene	TO15SIM	NA	02/11/13	1	0.0034	0.02	ND	ND		413913	NA
1,3,5-Trimethylbenzene	TO15SIM	NA	02/11/13	1	0.0035	0.02	0.039	0.01		413913	NA
1,2,4-Trimethylbenzene	TO15SIM	NA	02/11/13	1	0.0033	0.02	0.083	0.02		413913	NA
1,3-Dichlorobenzene	TO15SIM	NA	02/11/13	1	0.0056	0.03	ND	ND		413913	NA
1,4-Dichlorobenzene	TO15SIM	NA	02/11/13	1	0.0052	0.03	ND	ND		413913	NA
1,2-Dichlorobenzene	TO15SIM	NA	02/11/13	1	0.0056	0.03	ND	ND		413913	NA
1,2,4-trichlorobenzene	TO15SIM	NA	02/11/13	1	0.066	0.04	ND	ND		413913	NA
Naphthalene	TO15SIM	NA	02/11/13	1	0.0047	0.03	0.052	0.01		413913	NA
Hexachlorobutadiene	TO15SIM	NA	02/11/13	1	0.11	0.2	ND	ND		413913	NA



## SAMPLE RESULTS

**Report prepared for:** David Reinsma  
Trinity Source Group

**Date Received:** 02/05/13  
**Date Reported:** 02/13/13

<b>Client Sample ID:</b>	SVP-2	<b>Lab Sample ID:</b>	1302008-002A
<b>Project Name/Location:</b>	SVP-2 Re-Sample	<b>Sample Matrix:</b>	Air
<b>Project Number:</b>		<b>Certified Clean WO # :</b>	
<b>Date/Time Sampled:</b>	01/28/13 /	<b>Received PSI :</b>	0.0
<b>Canister/Tube ID:</b>	1250	<b>Corrected PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00		
<b>Tag Number:</b>	SVP-2 re-sample		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL %	Results %	Results ppmv	Lab Qualifier	Analytical Batch	Prep Batch
Carbon Dioxide	D1946	NA	02/12/13	1.87	0.047	0.047	1.21			413915	NA
Oxygen	D1946	NA	02/12/13	1.87	0.0468	0.0468	17.1			413915	NA
Methane	D1946	NA	02/12/13	1.87	0.0009	0.0009	ND	ND		413915	NA



## MB Summary Report

<b>Work Order:</b>	1302008	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15SIM	<b>Analyzed Date:</b>	02/11/13	<b>Analytical Batch:</b>	413913
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.0036	0.01	ND		
Chloromethane	0.0042	0.01	ND		
Vinyl Chloride	0.0014	0.005	ND		
1,3-Butadiene	0.0099	0.02	ND		
Bromomethane	0.0021	0.005	0.0060	B	
Chloroethane	0.00079	0.005	ND		
Trichloromonofluoromethane	0.0022	0.005	ND		
Isopropyl Alcohol	0.0063	0.05	0.081	B	
Acetone	0.011	0.02	0.094	B	
1,1-Dichloroethene	0.0017	0.005	ND		
tert-Butanol	0.0038	0.1	ND		
Methylene Chloride	0.0042	0.01	0.011	B	
Freon 113	0.0017	0.005	ND		
Carbon disulfide	0.00091	0.005	0.0020		
trans-1,2-Dichloroethene	0.00094	0.005	ND		
MTBE	0.0017	0.005	ND		
1,1-Dichloroethane	0.0012	0.005	ND		
Vinyl Acetate	0.0014	0.005	0.0020		
Hexane	0.0013	0.005	0.0040		
2-Butanone (MEK)	0.00092	0.005	ND		
DIPE	0.0011	0.005	ND		
cis-1,2-Dichloroethene	0.0010	0.005	ND		
Ethyl Acetate	0.00092	0.005	0.0010		
Chloroform	0.00166	0.005	ND		
ETBE	0.0011	0.005	ND		
Tetrahydrofuran	0.0097	0.02	ND		
1,2-Dichloroethane (EDC)	0.0012	0.005	ND		
1,1,1-Trichloroethane	0.0015	0.005	ND		
Carbon Tetrachloride	0.0014	0.005	ND		
Benzene	0.011	0.02	ND		
TAME	0.00059	0.005	ND		
Heptane	0.00081	0.005	ND		
1,2-Dichloropropane	0.0010	0.005	ND		
Trichloroethylene	0.0021	0.005	ND		
Bromodichloromethane	0.00083	0.005	ND		
1,4-Dioxane	0.0030	0.005	ND		
cis-1,3-Dichloropropene	0.00079	0.005	ND		
Methyl Isobutyl Ketone (MIBK)	0.0016	0.005	ND		
trans-1,3-Dichloropropene	0.00088	0.005	0.0010		
1,1,2-Trichloroethane	0.000590	0.005	ND		
Toluene	0.0011	0.005	ND		



### MB Summary Report

<b>Work Order:</b>	1302008	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15SIM	<b>Analyzed Date:</b>	02/11/13	<b>Analytical Batch:</b>	413913
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
2-Hexanone	0.0022	0.005	ND	
Dibromochloromethane	0.0025	0.005	ND	
1,2-Dibromoethane (EDB)	0.00054	0.005	0.0010	
Tetrachloroethylene	0.0038	0.01	0.010	
1,1,1,2-Tetrachloroethane	0.0013	0.005	ND	
Chlorobenzene	0.00050	0.001	ND	
Ethylbenzene	0.00054	0.005	ND	
m,p-Xylene	0.00061	0.005	0.0010	
Bromoform	0.0033	0.01	ND	
Styrene	0.00073	0.005	0.0010	
1,1,2,2-Tetrachloroethane	0.00034	0.001	0.0010	
o-Xylene	0.00051	0.005	ND	
4-Ethyl toluene	0.00070	0.005	0.0010	
1,3,5-Trimethylbenzene	0.00072	0.005	ND	
1,2,4-Trimethylbenzene	0.00068	0.005	0.0010	
1,3-Dichlorobenzene	0.00094	0.005	0.0020	
1,4-Dichlorobenzene	0.00086	0.005	0.0030	
1,2-Dichlorobenzene	0.00094	0.005	0.0010	
1,2,4-trichlorobenzene	0.0090	0.005	ND	
Naphthalene	0.00090	0.005	0.0010	
Hexachlorobutadiene	0.0099	0.02	ND	
1,1-Difluoroethane	0.050	0.1	ND	

<b>Work Order:</b>	1302008	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	D1946	<b>Analyzed Date:</b>	02/12/13	<b>Analytical Batch:</b>	413915
<b>Units:</b>	%						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Carbon Dioxide	0.025	0.025	ND	
Oxygen	0.025	0.025	ND	
Methane	0.0005	0.0005	ND	



### MB Summary Report

<b>Work Order:</b>	1302008	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15	<b>Analyzed Date:</b>	02/12/13	<b>Analytical Batch:</b>	413923
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH-Gasoline	8.1	20.0	ND		



## MB Summary Report

<b>Work Order:</b>	1302008	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15	<b>Analyzed Date:</b>	02/12/13	<b>Analytical Batch:</b>	413924
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.30	1.00	ND		
1,1-Difluoroethane	0.18	10.0	ND		
1,2-Dichlorotetrafluoroethane	0.70	2.00	ND		
Chloromethane	0.15	0.500	ND		
Vinyl Chloride	0.26	1.00	ND		
1,3-Butadiene	0.20	0.500	ND		
Bromomethane	0.18	0.500	ND		
Chloroethane	0.19	0.500	ND		
Trichlorofluoromethane	0.32	1.00	ND		
1,1-Dichloroethene	0.15	0.500	ND		
Freon 113	0.11	0.500	ND		
Carbon Disulfide	0.26	1.00	ND		
2-Propanol (Isopropyl Alcohol)	0.39	10.0	ND		
Methylene Chloride	0.17	1.00	ND		
Acetone	0.37	4.00	ND		
trans-1,2-Dichloroethene	0.16	0.500	ND		
Hexane	0.15	0.500	ND		
MTBE	0.24	0.500	ND		
tert-Butanol	0.22	2.00	ND		
Diisopropyl ether (DIPE)	0.21	0.500	ND		
1,1-Dichloroethane	0.18	0.500	ND		
ETBE	0.16	0.500	ND		
cis-1,2-Dichloroethene	0.13	0.500	ND		
Chloroform	0.25	1.00	ND		
Vinyl Acetate	0.16	0.500	ND		
Carbon Tetrachloride	0.14	0.500	ND		
1,1,1-Trichloroethane	0.15	0.500	ND		
2-Butanone (MEK)	0.21	0.500	ND		
Ethyl Acetate	0.21	0.500	ND		
Tetrahydrofuran	0.10	0.500	ND		
Benzene	0.21	0.500	ND		
TAME	0.086	0.500	ND		
1,2-Dichloroethane (EDC)	0.24	0.500	ND		
Trichloroethylene	0.26	1.00	ND		
1,2-Dichloropropane	0.29	1.00	ND		
Bromodichloromethane	0.13	0.500	ND		
1,4-Dioxane	0.35	1.00	ND		
trans-1,3-Dichloropropene	0.19	0.500	ND		
Toluene	0.25	0.500	ND		
4-Methyl-2-Pentanone (MIBK)	0.21	0.500	ND		
cis-1,3-Dichloropropene	0.25	0.500	ND		



## MB Summary Report

<b>Work Order:</b>	1302008	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15	<b>Analyzed Date:</b>	02/12/13	<b>Analytical Batch:</b>	413924
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Tetrachloroethylene	0.13	0.500	ND		
1,1,2-Trichloroethane	0.17	0.500	ND		
Dibromochloromethane	0.20	0.500	ND		
1,2-Dibromoethane (EDB)	0.27	1.00	ND		
2-Hexanone	0.27	1.00	ND		
Ethyl Benzene	0.23	0.500	ND		
Chlorobenzene	0.15	0.500	ND		
1,1,1,2-Tetrachloroethane	0.15	0.500	ND		
m,p-Xylene	0.38	1.00	ND		
o-Xylene	0.19	0.500	ND		
Styrene	0.16	0.500	ND		
Bromoform	0.11	0.500	ND		
1,1,2,2-Tetrachloroethane	0.10	0.500	ND		
4-Ethyl Toluene	0.17	0.500	ND		
1,3,5-Trimethylbenzene	0.15	0.500	ND		
1,2,4-Trimethylbenzene	0.14	0.500	ND		
1,4-Dichlorobenzene	0.11	0.500	ND		
1,3-Dichlorobenzene	0.14	0.500	ND		
Benzyl Chloride	0.12	0.500	ND		
1,2-Dichlorobenzene	0.15	0.500	ND		
Hexachlorobutadiene	0.22	0.500	ND		
1,2,4-Trichlorobenzene	0.46	1.00	ND		
Naphthalene	0.28	1.00	ND		
(S) 4-Bromofluorobenzene			102		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1302008	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15SIM	<b>Analyzed Date:</b>	02/11/13	<b>Analytical Batch:</b>	413913
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.0017	0.005	ND	0.1	96.0	76.0	23.3	70 - 130	30	
Benzene	0.011	0.02	0.00	0.1	94.0	92.0	2.15	70 - 130	30	
Trichloroethylene	0.0021	0.005	ND	0.1	124	85.0	37.3	70 - 130	30	
Toluene	0.0011	0.005	ND	0.1	95.0	76.0	22.2	70 - 130	30	
Chlorobenzene	0.00050	0.001	ND	0.1	101	80.5	22.6	70 - 130	30	

<b>Work Order:</b>	1302008	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	D1946	<b>Analyzed Date:</b>	02/12/13	<b>Analytical Batch:</b>	413915
<b>Units:</b>	%						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Carbon Dioxide	0.0250	0.0250	ND	2500	105	100	4.85	65 - 135	30	
Oxygen	0.0250	0.0250	ND	2500	102	108	5.33	65 - 135	30	
Methane	0.0005	0.0005	ND	2500	91.1	95.9	5.11	65 - 135	30	

<b>Work Order:</b>	1302008	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15	<b>Analyzed Date:</b>	02/12/13	<b>Analytical Batch:</b>	413923
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH-Gasoline	8.1	20.0	ND	256	92.5	103	10.5	50 - 150	30	



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1302008	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15	<b>Analyzed Date:</b>	02/12/13	<b>Analytical Batch:</b>	413924
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.15	0.500	ND	8	109	114	4.04	65 - 135	30	
Benzene	0.21	0.500	ND	8	111	114	3.00	65 - 135	30	
Trichloroethylene	0.26	1.00	ND	8	121	121	0.310	65 - 135	30	
Toluene	0.25	0.500	ND	8	111	107	3.33	65 - 135	30	
Chlorobenzene	0.15	0.500	ND	8	104	98.4	5.68	65 - 135	30	
(S) 4-Bromofluorobenzene			ND	8	105	109		65 - 135		



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit (PQL)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m<sup>3</sup></b> , <b>mg.m<sup>3</sup></b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> ( concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<p><b>B</b> - Indicates when the analyte is found in the associated method or preparation blank</p> <p><b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p><b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p><b>H</b>- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p><b>J</b>- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p><b>NA</b> - Not Analyzed</p> <p><b>N/A</b> - Not Applicable</p> <p><b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p><b>R</b>- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p><b>S</b>- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p><b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>
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## Sample Receipt Checklist

Client Name: Trinity Source Group

Date and Time Received: 2/5/2013 15:30

Project Name: SVP-2 Re-Sample

Received By: patti

Work Order No.: 1302008

Physically Logged By: lorna

Checklist Completed By: lorna

Carrier Name: Client Drop Off

### Chain of Custody (COC) Information

Chain of custody present? Yes  
Chain of custody signed when relinquished and received? No  
Chain of custody agrees with sample labels? No  
Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present  
Shipping Container/Cooler In Good Condition? Yes  
Samples in proper container/bottle? Yes  
Samples containers intact? Yes  
Sufficient sample volume for indicated test? Yes

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

All samples received within holding time? Yes  
Container/Temp Blank temperature in compliance? No Temperature: °C  
Water-VOA vials have zero headspace? No VOA vials submitted  
Water-pH acceptable upon receipt? N/A  
pH Checked by: n/a pH Adjusted by: n/a



483 Sinclair Frontage Road  
 Milpitas, CA 95035  
 Phone: 408.263.5258  
 FAX: 408.263.8293  
 www.torrentlab.com

### CHAIN OF CUSTODY

LAB WORK ORDER NO

1362008

NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY

Company Name: TRINITY SOURCE GROUP, INC.  Env.  IH  Food  Special Location of Sampling:

Address: 500 Chestnut St, Ste 225 Purpose: SUP-2 re-sample

City: SANTA CRUZ State: CA Zip Code: 95060 Special Instructions / Comments:

Telephone: (831) 426-5600 FAX: (831) 426-5602

REPORT TO: DAVE RENSMA SAMPLER: ERIC CHOI P.O. #: 154,004,014 EMAIL: abstrinity

TURNAROUND TIME:  10 Work Days  4 Work Days  1 Work Day  
 7 Work Days  3 Work Days  Noon - Nxt Day  
 5 Work Days  2 Work Days  2 - 8 Hours

SAMPLE TYPE:  Storm Water  Air  Other  
 Waste Water  Ground Water  Soil

REPORT FORMAT:  QC Level IV  EDF  Excel / EDD

VOC TO-15 sim  
 DFE used for leak detection  
 TPEIG  
 O2, CO2, CH4

ANALYSIS REQUESTED

LAB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	ANALYSIS REQUESTED				REMARKS	
-001A	SUP-2	(Sample vessel # 647)	2/5/13 12:00-14:15	AIR	1	Suma	X	X	X	X		
	SUP-2		2/5/13	AIR	1	Suma	X	X	X	X	HOLD	Please run as GC check 2/5/13

1 Relinquished By: ERIC CHOI Print: ERIC CHOI Date: 2/5/13 Time: 15:30 Received By: [Signature] Print: [Signature] Date: 2/5/13 Time: 15:30

2 Relinquished By: \_\_\_\_\_ Print: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Print: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Were Samples Received in Good Condition?  Yes  NO Samples on Ice?  Yes  NO Method of Shipment \_\_\_\_\_ Sample seals intact?  Yes  NO  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Temp \_\_\_\_\_ °C Page \_\_\_\_\_ of \_\_\_\_\_

Log In By: [Signature] Date: 2-5-13 Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

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STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A EDF FILE

**SUCCESS**

Processing is complete. No errors were found!  
Your file has been successfully submitted!

<b><u>Submittal Type:</u></b>	EDF
<b><u>Report Title:</u></b>	2013 Groundwater Data
<b><u>Report Type:</u></b>	Soil and Water Investigation Report
<b><u>Facility Global ID:</u></b>	T0600100018
<b><u>Facility Name:</u></b>	ABF FREIGHT SYSTEMS
<b><u>File Name:</u></b>	TRINITYSCCA-L614282_EDF.zip
<b><u>Organization Name:</u></b>	Trinity Source Group, Inc.
<b><u>Username:</u></b>	TRINITY SOURCE GROUP
<b><u>IP Address:</u></b>	69.198.129.110
<b><u>Submittal Date/Time:</u></b>	1/29/2013 2:43:37 PM
<b><u>Confirmation Number:</u></b>	5655933439

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**GEOTRACKER ESI**

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**SUCCESS**

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<b><u>Submittal Type:</u></b>	EDF
<b><u>Report Title:</u></b>	2012 Soil and Groundwater Data
<b><u>Report Type:</u></b>	Soil and Water Investigation Report
<b><u>Facility Global ID:</u></b>	T0600100018
<b><u>Facility Name:</u></b>	ABF FREIGHT SYSTEMS
<b><u>File Name:</u></b>	TRINITYSCCA-L612046_EDF.zip
<b><u>Organization Name:</u></b>	Trinity Source Group, Inc.
<b><u>Username:</u></b>	TRINITY SOURCE GROUP
<b><u>IP Address:</u></b>	69.198.129.110
<b><u>Submittal Date/Time:</u></b>	1/29/2013 2:40:59 PM
<b><u>Confirmation Number:</u></b>	6200485169

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## **ATTACHMENT H**

### **Waste Disposal Documentation**

# Manifest

## SOIL SAFE OF CA - TPST Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment: / /	Responsible for Payment:	Transport Truck #:	Facility #: A07	Approval Number: 40583	Load #: 001
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Generator and/or Consultant

Generator's Name and Billing Address: ABF FREIGHT 4575 TIDEWATER AVENUE OAKLAND, CA 94601		Generator's Phone #: Person to Contact: FAX#:		Customer Account Number	
Consultant's Name and Billing Address:		Consultant's Phone #: Person to Contact: FAX#:		Customer Account Number	
Generation Site (Transport from): (name & address) ABF FREIGHT 4575 TIDEWATER AVENUE OAKLAND, CA 94601		Site Phone #: Person to Contact: FAX#:			
Designated Facility (Transport to): (name & address) SOIL SAFE 12328 HIBISCUS AVENUE ADELANTO, CA 92301		Facility Phone #: (800) 862-8001 Person to Contact: DELLENA JEFFREY FAX#: (760) 246-8004			
Transporter Name and Mailing Address: BELSHIRE 25971 TOWNE CENTRE DRIVE FOOTHILL RANCH, CA 92610 BESI: 216242		Transporter's Phone #: 949-460-5200 Person to Contact: LARRY MOOTHART FAX#: 949-460-5210		CAR000183913 450647 Customer Account Number	

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>	20M				
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>					

List any exception to items listed above: \_\_\_\_\_ Scale Ticket # \_\_\_\_\_

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator  Consultant  Signature and date: \_\_\_\_\_ Month, Day Year  
 Larry Moothart of BESI on behalf of generator 2 19 13

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: \_\_\_\_\_ Signature and date: \_\_\_\_\_ Month, Day Year  
 Larry Moothart 2 19 13

Discrepancies: \_\_\_\_\_

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: \_\_\_\_\_ Signature and date: \_\_\_\_\_  
 D. JEFFREY/J. PROVANSAL

Please print or type.

NO. 702747

# NON-HAZARDOUS WASTE DATA FORM

BESI # 216242

GENERATOR

Generator's Name and Mailing Address <b>ABF FREIGHT 4575 TIDEWATER AVENUE OAKLAND, CA 94601</b>	Generator's Site Address (if different than mailing address) <b>ABF FREIGHT 4575 TIDEWATER AVENUE OAKLAND, CA 94601</b>
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Generator's Phone: _____	Container type removed from site: <input checked="" type="checkbox"/> Drums <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____	Container type transported to receiving facility: <input type="checkbox"/> Drums <input checked="" type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____
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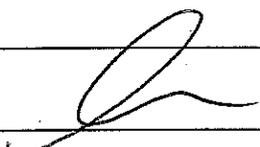
Quantity <u>2</u>	Quantity <u>1</u> Volume <u>110 gallons</u>
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WASTE DESCRIPTION <u>NON-HAZARDOUS WATER</u>	GENERATING PROCESS <u>WELL FURGING / DECON WATER</u>
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COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. <u>WATER</u>		<u>99-100%</u>	3. _____		
2. <u>TPH</u>		<u>&lt;1%</u>	4. _____		

Waste Profile \_\_\_\_\_ PROPERTIES: pH 7-10     SOLID     LIQUID     SLUDGE     SLURRY     OTHER \_\_\_\_\_

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PERSONAL PROTECTION CLOTHING.

Generator Printed/Typed Name <u>Larry Moothart of BESI on behalf of generator</u>	Signature 	Month Day Year <u>2/19/13</u>
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The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name <u>BELSHIRE</u>	Phone# <u>949-460-5200</u>
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Transporter 1 Printed/Typed Name <u>Larry Moothart</u>	Signature 	Month Day Year <u>2/19/13</u>
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Transporter 2 Company Name <u>NIETO &amp; SONS TRUCKING, INC.</u>	Phone# <u>714-890-6855</u>
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Transporter 2 Printed/Typed Name _____	Signature _____	Month Day Year _____ _____ ____
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RECEIVING FACILITY

Designated Facility Name and Site Address <b>DEMENNO KERDOON 2000 N. ALAMEDA ST. COMPTON, CA 90222</b>	Phone# <b>310-537-7100</b>
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Printed/Typed Name _____	Signature _____	Month Day Year _____ _____ ____
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Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.