

**RECEIVED**

1:09 pm, Dec 10, 2007

Alameda County  
Environmental Health

Timber Dell Properties, LLC  
1255 Sherman St.  
Alameda, Ca. 94501

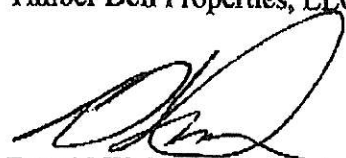
Dec.4, 2007

Regarding

Phase III Sub-Slab Vapor Mitigation Report  
SLIC Case No. R00002584  
649 Pacific Avenue  
Alameda, Ca. 94501

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

Timber Dell Properties, LLC



Donald W. Lindsey, member



December 6, 2007  
Trinity Project No. 103.005.005

Mr. Jerry Wickham  
Alameda County Health Care Services Agency  
Environmental Health Services, Environmental Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: *Sub-Slab Vapor Mitigation Report*  
Searway Property (SLIC Case No. RO0002584)  
649 Pacific Avenue  
Alameda, California

Dear Mr. Wickham:

This document, prepared by Trinity Source Group, Inc. (Trinity) on behalf of Timber Del Properties, L.L.C., c/o Mr. Donald Lindsey, presents a *Sub-Slab Vapor Mitigation Report* for the referenced site (Figures 1 and 2). This report follows the September 20, 2007 *Phase III Sub-Slab Vapor Investigation Report* and the July 11, 2007 *Sub-Slab Vapor Investigation Report* submitted by Trinity on behalf of Timber Del Properties. These reports summarized the results of sub-slab vapor sampling, and were completed at the request of Alameda County Health Care Services Agency (ACHCSA). Based on review of the *Phase III Sub-Slab Vapor Investigation Report*, the ACHCSA issued a letter dated September 21, 2007, requesting that the recommendations presented in the Phase III report be implemented. The ACHCSA letter is included in Attachment A to this report. This *Sub-Slab Vapor Mitigation Report* complies with the ACHCSA letter. This report presents the site description, a description of the scope of work completed in order to collect data for the sub-slab depressurization design, and the design drawings and details.

## **SITE DESCRIPTION**

The site is located in a two-story commercial building at the intersection of Pacific Avenue and Webster Street in Alameda, California. The site was formerly the location of a dry cleaning operation from the 1940's until at least 1979. The project site building is currently used as a Kelly-Moore Paints store. Tenants of adjacent portions of the building include the East Ocean

Seafood Restaurant at 1713 Webster Street, a martial arts school, and a tailoring/cleaners shop. The general land use in the site vicinity is commercial and residential.

## **SUMMARY OF PREVIOUS SUB-SLAB VAPOR INVESTIGATIONS**

### **Phase I**

In response to a request that the site be evaluated for low-risk closure, the ACHCSA requested submittal of a work plan to evaluate the potential for indoor air vapor intrusion of total volatile hydrocarbons due to Stoddard solvent impacts to soil and groundwater.

Trinity submitted the requested workplan on May 15, 2006, and proposed the installation and sampling of three semi-permanent soil vapor probes. The work was completed in October 2006. With the approval of ACHCSA, Trinity installed the sub-slab probes rather than semi-permanent soil gas probes in soil borings. In general, the sub-slab vapor probes (VS-1, VS-2, and VS-3) yielded elevated concentrations of Stoddard solvent as well as several chlorinated volatile organic compounds (VOCs) in the vadose zone immediately beneath the building foundation slab.

### **Phase II**

Trinity conducted a Phase II sub-slab vapor investigation to further delineate the extent of the Stoddard solvent and VOCs beneath the site building. This phase included installation and sampling of six additional sub-slab vapor probes (VS-4 through VS-9). These probes evaluated the concentrations of Stoddard solvent and VOCs in the vapor immediately beneath the foundation slab of the site building and beneath the adjacent parking lot.

The sub-slab vapor chemical of concern (COC) concentrations were compared to San Francisco Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) which are shallow soil gas screening levels for evaluation of potential vapor intrusion concerns (Table E-2) for commercial and industrial land use scenarios (SFRWQCB – February 2005). ESLs are presented in Table 1 along with the site analytical results. COCs in sub-slab vapor that exceeded a particular ESL for commercial or industrial land use are as follows:

- Chloroform as detected in Probes VS-1 and VS-5.
- Carbon tetrachloride as detected in Probes VS-1 through VS-7.
- PCE as detected in Probes VS-1 through VS-8.

Analytical results are summarized on Table 1. Other constituents that have been detected in sub-slab vapor samples but which are not a concern for the site based on ESLs for commercial

and industrial land use are Stoddard solvent, Trans-1,2-DCE, cis-1,2-DCE, TCE, acetone, Freon 11, carbon disulfide, chloroethane, and methyl ethyl ketone.

### **Phase III**

Based on the Phase II sub-slab vapor investigation results, Trinity performed a Phase III investigation to further delineate the extent of COCs in the sub-slab vapor.

The scope of work for the Phase III sub-slab vapor investigation included installation and sampling of five additional sub-slab vapor probes (VS-10 through VS-14) inside the site building. Sub-slab vapor probe locations are shown on Figure 2. The probes were installed on July 31 and August 1, 2007, and sampled on August 16, 2007.

Results of all sub-slab vapor sampling are presented in Table 1. Table 1 also includes current SFRWQCB ESLs, which were updated in November 2007. Chemical concentration maps showing the vapor concentrations in sub-slab samples for Stoddard solvent, chloroform, carbon tetrachloride, and PCE are presented as Figures 3 through 6, respectively. These figures also illustrate which concentrations exceed respective ESLs, using the data generated for the existing Phase I, Phase II and Phase III sub-slab vapor probes. The November 2007 ESL for carbon tetrachloride was revised from earlier versions; the current ESL is 63 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). This new ESL results in a more extensive carbon tetrachloride plume than was shown in the Phase III report, as shown on Figure 5.

The Phase III sub-slab vapor investigation indicated that Stoddard solvent and VOCs are present locally beneath the concrete slab at the Kelly-Moore Paints store building located at 649 Pacific Avenue, and the adjacent East Ocean Seafood Restaurant at 1713 Webster Street. The Phase III investigation indicated only one sub-slab vapor probe (VS-11) where COCs have exceeded a particular ESL for commercial or industrial land use. At Probe VS-11, carbon tetrachloride and PCE exceeded their respective ESLs.

Other constituents that have been detected in the Phase III sub-slab vapor samples but which are not a concern for the site based on ESLs for commercial and industrial land use are Stoddard solvent, chloroform, acetone, Freon 11, ethanol, 1,1,1-trichloroethane, 1,2,4-trimethylbenzene, 2-butanone and m,p-xylene.

The detection of isopropyl alcohol in the sample collected from Probes VS-13 at the relatively high concentration of  $24,000 \mu\text{g}/\text{m}^3$  may have indicated a low bias for the other analyses from this probe location. This probe was resampled as part of the work conducted in developing the sub-slab depressurization design.



## **SCOPE OF WORK**

The scope of work performed to complete this *Sub-Slab Vapor Mitigation Report* included the following tasks:

- Re-sampling Probes VS-13 and VS-11 to confirm the detections of COCs at these locations. Re-sampling Probe VS-13 was recommended because the detection of leak test compound indicated that the sample analysis performed for the Phase III sub-slab vapor investigation may not have been representative of sub-slab conditions. Probe VS-11 had concentrations of PCE and carbon tetrachloride higher than the applicable ESLs, and so re-sampling prior to system design was recommended to confirm these levels.
- Inspect the building foundation for all COC vapor entry points such as cracks in the slab or foundation, gaps in fieldstone walls, construction joints between walls and slabs, annulus space around utility pipes, open sumps, etc. Possible entry points were monitored with a part per billion range photo-ionization detector.
- Sealing off all possible entry routes to the extent possible, to prevent the entrance of sub-slab vapors and to enhance the sub-slab negative pressure field when a sub-slab depressurization (SSD) system is in operation.
- Perform diagnostic testing of the air flow characteristics and capacity of the material(s) beneath the slab for the purpose of designing a SSD system.
- Design a SSD using the results of the diagnostic testing, to mitigate VOC vapor intrusion concerns for the site structure.

## **RESULTS**

### **Resampling VS-11 and VS-13**

Probe VS-11 was resampled on October 17, 2007, and Probe VS-13 was resampled on October 18, 2007. The sampling procedure is described in Attachment B. The samples were collected into Summa canisters, and submitted under chain-of-custody protocol to Air Toxics, Inc., in Folsom, California. The samples were analyzed for VOCs using EPA Method TO-15 and Stoddard solvent using EPA Method TO-3. The analytical results are presented on Table 1, and summarized below. Certified analytical reports are included in Attachment C.

Probe VS-11 was reported with carbon tetrachloride at  $970 \mu\text{g}/\text{m}^3$ , and PCE at  $3,600 \mu\text{g}/\text{m}^3$ . These concentrations exceeded their respective ESLs. Other compounds, including Stoddard solvent, chloroform, acetone, and ethanol were also detected in Probe VS-11, at concentrations less than applicable ESLs.

Probe VS-13 was reported to contain Stoddard solvent, PCE, acetone, Freon 11, 2-butanone, all at concentrations less than ESLs.

The resampled analytical results are generally of similar magnitude to the original results; therefore, the delineation of the sub-slab VOC vapors presented in the *Phase III Sub-Slab Vapor Intrusion Investigation Report* is considered valid.

### **Inspecting and Sealing Foundation Vapor Entry Points**

On October 17, 2007, Trinity staff inspected the interiors of the Kelly-Moore Paints store and the East Ocean Seafood Restaurant, to identify locations where vapors may enter the building through the foundation. A number of slab penetrations were identified, including floor sinks, wall sinks, floor drains, toilets, and monitoring wells. All of the penetrations identified in the Kelly-Moore Paints store were sealed with caulk, and the penetrations in the restroom at the northwestern corner of the East Ocean Seafood Restaurant were also sealed. The remaining penetrations in the restaurant facility were not sealed. The sealed penetrations are generally located in the areas with the highest VOC concentrations in the sub-slab vapor.

### **Diagnostic Testing**

#### **SSD Diagnostic Test Field Procedures:**

The SSD diagnostic tests were performed as described in the following text. The purpose of the SSD diagnostic tests was to evaluate the number and spacing of extraction points required to effectively depressurize the sub-slab area beneath the building, the vacuum required at each extraction point, and the vapor flow rate from each extraction point.

The scope of work for the diagnostic tests included the installation of two sub-slab depressurization points (Points DPT-1 and DPT-2) and eight additional observation/monitoring probes (VS-15 through VS-22), which were drilled through the slab utilizing the same design as the previously-installed Probes VS-1 through VS-14. The observation points were located at varying distances (e.g., 5, 10, 20, 30 feet) from the extraction points. Figure 2 shows the locations of extraction Points DPT-1, and DPT-2, and Probes VS-15 through VS-22.

A standard wet/dry vacuum (e.g., Shop-Vac) was used to extract soil vapor from the extraction point; the pressure drop and flow rate at the extraction point, along with the pressure drop in the observation points, was monitored and measurements recorded. The extraction point was fitted with a magnehelic gauge and sampling port to measure applied vacuum and collect vapor samples. Each observation point was fitted with a magnehelic gauge to measure the vacuum response created by the applied vacuum at the extraction point.

Three step tests were conducted at Point DPT-1 and three step tests were conducted at Point DPT-2, for a total of six step tests. In each case, Step 1 consisted of applied vacuum at low pressure (approximately 40 inches of water [in-H<sub>2</sub>O]). Step 2 consisted of applied vacuum increased to a medium pressure (at approximately 50 in-H<sub>2</sub>O), and Step 3 consisted of the maximum available pressure (at approximately 60 in-H<sub>2</sub>O). The duration of each step ranged from approximately 1 to 2 hours. Pressure responses at observations points were recorded at roughly 30-minute intervals.

To determine the approximate concentration of VOCs being extracted, periodic sampling of the extracted vapors were made using a photo-ionization detector (PID). Additionally, to speciate VOCs present and determine their relative concentrations in the vapor train, Tedlar bag vapor samples were collected during each test from Points DPT-1 and DPT-2.

### **SSD Diagnostic Test Pressure Response Results**

Two sub-slab depressurization tests were performed using extraction Points DPT-1 and DPT-2 (Figure 2). The applied vacuums ranged from 40 to 60 in-H<sub>2</sub>O and volumetric extraction air-flow rates ranging from 9 to 24 standard cubic feet per minute (scfm). For each test, the applied vacuum was increased in three steps (Step 1 at 40 in-H<sub>2</sub>O and 9 scfm, Step 2 at 50 in-H<sub>2</sub>O and 15 scfm, and Step 3 at 60 in-H<sub>2</sub>O and 19 or 24 scfm) and the sub-slab pressure response to the applied vacuum was observed at 20 observations wells (Figure 2).

The vapor pressure responses measured at each observation point are shown in Table 2 for Test DPT-1 and Table 3 for Test DPT-2. The maximum radius of influence (ROI) observed from the applied vacuum for each test is presented in Table 4, and illustrated in Figure 7 for Test DPT-1 and Figure 8 for Test DPT-2. The maximum ROI for the test is determined by the difference between the final measured pressure and the initial recorded pressure at each observation point.

For Test DPT-1, (Table 2, Figure 7) the highest response was recorded at Probe VS-3 at -0.14 in-H<sub>2</sub>O and the applied vacuum produced pressure responses to perimeter locations including Probes VS-11, VS-17, VS-16, VS-7 and VS-8. The distribution of the applied vacuum from Test DPT-1 was highest along an alignment that generally follows the sanitary sewer line. Pressure response at perimeter locations including Probes VS-11 (73 feet from DPT-1), VS-17 (56 feet from DPT-1), and VS-16 (46 feet from DPT-1) indicate that the applied vacuum was capable of inducing sub-slab air flow into the Kelly-Moore Paints portion of the building from the adjoining East Ocean Seafood Restaurant building at 1713 Webster Street.

For Test DPT-2, (Table 3, Figure 8) the highest response was recorded at Probe VS-5 at -0.52 in-H<sub>2</sub>O and the applied vacuum produced pressure responses to perimeter locations including Probes VS-17, VS-16, VS-15, VS-4, VS-7 and VS-8. Pressure response at perimeter Probes VS-8 (100 feet from DPT-2), VS-7 (64 feet from DPT-2), and VS-15 (47 feet from DPT-1) indicate that the applied vacuum was capable of inducing sub-slab air flow into the

Kelly-Moore Paints portion of the building from the adjoining East Ocean Seafood Restaurant building. Note, also that a positive pressure increase (0.01 in-H<sub>2</sub>O) was observed at distant Probes VS-12 and VS-9 at the completion of the test. The distribution of the applied vacuum from Test DPT-2 generally mirrors the distribution of the sub-slab vapor plume presented in Figures 3 through 6; this observation suggests that the vapor plume accumulates within and flows along the more permeable air pathways beneath the building floor.

In both tests, a pressure response was observed at the lower applied vacuum of 40 in-H<sub>2</sub>O which was observed to increase in areas when the higher applied vacuum of 60 in-H<sub>2</sub>O was applied. During Test DPT-1, a total of 3,204 cubic feet of air is estimated to have been evacuated; and for Test DPT-2, a total of 3,747 cubic feet of air is estimated to have been evacuated. If the area of the vapor plume is assumed to be 8,400 square feet (140 feet by 60 feet) and the permeable sub-slab material is 6-inches thick with a porosity of 0.35, then the vapor plume occupies a volume of approximately 1,470 cubic feet. Based on the above assumptions, Test DPT-1 evacuated approximately 2.1 pore volumes and Test DPT-2 evacuated approximately 2.5 pore volumes of sub-slab air. Based on these sub-slab volume assumptions and observed pressure drops in tests, collectively, both tests effectively swept the area of concern.

The observed pressure responses from the diagnostic tests indicate that sub-slab depressurization, sub-slab air-flow and vapor plume capture is achievable from the applied vacuums used in Tests DPT-1 and DPT-2. An effective capture radius of up to 100 feet from Point DPT-2 was observed, and the results from Test DPT-1 indicate that effective capture occurs along the alignment of the sanitary sewer where high concentrations of sub-slab vapor have been historically observed.

### **SSD Diagnostic Test Analytical Results**

To determine the concentrations of VOCs captured during the diagnostic tests, sub-slab air was screened with a PID during the performance of the test and sub-slab vapor samples were collected in Tedlar bags for laboratory analysis. The samples were collected into 1-liter Tedlar bags, and submitted to Torrent Laboratory, under chain-of-custody protocol. Two samples from each test location were submitted for analysis, one sample from the first step test, and one sample from the third (final) step test. The samples were analyzed for VOCs by EPA Method TO-15, and for Stoddard solvent by EPA Method TO-3. Analytical results are presented on Table 5, and certified analytical reports are included in Attachment C.

PID readings collected during Test DPT-2 indicate that initial concentrations of VOCs at the beginning of each step were highest and then reduced as Test DPT-2 continued (Table 3). However, analytical results from the Tedlar bag samples collected during Step 1 and Step 3 was essentially the same in value indicating that sub-slab air concentrations extracted during the entire Test DPT-2 were relatively uniform. The concentration of carbon tetrachloride was 1,800

and 1,700 micrograms per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ) during Step 1 and Step 3, respectively. The diagnostic test extracted VOC concentrations when compared to the “grab” results presented in *Phase III Sub-Slab Vapor Intrusion Investigation Report*, are lower than surrounding “grab” air samples would indicate, suggesting that the broader sweep of sub-slab air obtained during the diagnostic test dilutes areas of high concentration located near the extraction points.

PID readings collected during Test DPT-1 were all non-detect, indicating that the meter was likely malfunctioning (Table 2). The analytical results from the Tedlar bag samples collected during Step 1 and Step 3 were essentially the same in value indicating that sub-slab air extracted during the entire test was relatively uniform. During Test DPT-1 for example, carbon tetrachloride was  $120 \mu\text{g}/\text{m}^3$  during Step 1, and  $100 \mu\text{g}/\text{m}^3$  during Step 3, respectively. Similarly to Test DPT-2, The diagnostic test extracted VOC concentrations when compared to the “grab” results presented in *Phase III Sub-Slab Vapor Intrusion Investigation Report*, are lower than surrounding “grab” air samples would indicate, suggesting that the broader sweep of sub-slab air obtained during the diagnostic test dilutes areas of high concentration located near the extraction points.

### **SSD Diagnostic Test Mass Removal Estimates**

Trinity estimated the potential mass removed during the diagnostic test and compared the results with Bay Area Air Quality Management District (BAAQMD) permit requirements. Table 6 presents estimates of mass removal. Discharges to the atmosphere are screened against the BAAQMD’s Chronic Trigger Levels, which are threshold concentrations for contaminants determined by the BAAQMD’s Health Risk Screening Analysis (HRSA). Concentrations of contaminants of concern or their total yearly mass above trigger levels require abatement prior to discharge to the atmosphere.

The volumetric air flow rate used in Table 6 represents the maximum rated capacity of the Shop-Vac test fan at 180 cfm (per manufacturer’s specifications) and assumes 24-hour per day, 365 days per year continuous operation. However, measured volumetric extraction rates did not exceed 24 cfm in either test. The difference between the rated volumetric air flow of the Shop-Vac and measured flow rates is due to pressures losses within the Shop-Vac system (that is, pressure losses through the HEPA filter, etc.) and frictional losses through the piping.

As presented on Table 6, two of the contaminants of concern, chloroform and PCE, do not exceed the BAAQMD Chronic Trigger Levels for estimated mass removed in pounds per year (lbm/year); a trigger level has not been established for Stoddard solvent. Carbon tetrachloride exceeds its BAAQMD Chronic Trigger Levels of 4.3 lbm/year. However, based on the field results, no contaminant exceeded its (1-hour) Acute Trigger Level concentration.

At the maximum observed extraction rate of 24 cfm during the diagnostic test, the estimated mass of carbon tetrachloride would be 1.77 lbm/year, which is well below its chronic trigger

level. Based on the BAAQMD Chronic Trigger Levels as criteria to establish unabated discharge, a maximum allowable extraction rate of 72 cfm could be achieved if influent concentrations stay at or below concentrations measured during the diagnostic test. Over time, it is likely that VOC concentrations would decline.

In all scenarios presented in Table 6, less than 1-pound per day of total organics would be extracted and discharged to the atmosphere. Per BAAQMD Regulation 8-47-402, an extraction system that produces less than 1-pound per day may qualify for an exemption of BAAQMD permitting requirements.

## **PRELIMINARY DESIGN PARAMETERS FOR SUB-SLAB DEPRESSURIZATION SYSTEM**

The pressure responses observed in the diagnostic tests described above have provided field measurements to assist design parameters for the site SSD mitigation system. The vacuum responses measured showed that areas with elevated sub-slab VOC vapor concentrations can be influenced by application of an applied suction at relatively low-flow to the sub-slab floor. The SSD design parameters reflect test parameters and are as follows:

- An applied suction force of 60 in-H<sub>2</sub>O and up to 72 cfm air flow rate.
- Install two extraction wells at locations near DPT-1 and DPT-2 to provide the required sweep of sub-slab air.
- Petition BAAQMD for Regulation 8-47-402 exemption for discharges (i.e., no abatement required).

The preliminary design elements are shown in Sheets 1 to 4, as follows:

Sub-Slab System Layout (Figure 9) – two extraction wells are located near DPT-1 and DPT-2. Extraction well pipe runs will be trenched to nearby walls. The pipe runs will continue up to the first floor ceiling, where they will be manifolded together and connected to a suction fan located in the roof attic. The exhaust air would be piped the southwest corner of the roof and discharged through a 3-foot tall stack. This corner of the property is adjacent to a parking lot and street with open access to available wind, and therefore the low VOC mass discharged should not pose a risk of accumulating or concentrating. The electric fan blower will be equipped with a pressure indicator and flow meter to monitor performance.

Sub-Slab System Process and Instrumentation Diagram (Figure 10) – The process flow for the extraction system is relatively simple; sub-slab air will be withdrawn from the sub-slab material by application of an applied vacuum. The extracted air will be routed through piping and discharged to the atmosphere unabated. Wellheads will be fitted with ball valves to regulate flow, if required, and sample ports to allow for sample collection and flow measurements.



Sub-Slab System Extraction Well Detail (Figure 11) – The extraction a 3-foot long 4-inch diameter slotted PVC connected to 4-inch diameter PVC blank pipe runs. The slotted pipe will be set in the middle of the sub base material. PVC will extend across the sub-base material. The pipe runs are increased to 4-inch diameter from the 2-inch pipe diameter used in the diagnostic tests to reduce frictional losses and increase air flow rates.

Sub-Slab System Monitoring Point Detail (Figure 12) – The monitoring points (VS-1 through VS-22) are already installed and were constructed in accordance with the design specifications presented in the EPA document, “*Assessment of Vapor Intrusion in Homes Near the Raymark Superfund Site using Basement and Sub-Slab Air Samples*” (EPA 600 R-05/147, March 2006). These monitoring points have proven to be effective in sample collection and measuring the pressure field established by an applied vacuum.

Trinity has consulted with the BAAQMD, and believes that a permit exemption will likely be granted for the proposed system. However, the BAAQMD is required to perform its Health Risk Screening Analysis (HRSA) prior to granting an exemption. Additional permits, as required, will be obtained from the City of Alameda Building Department for construction of the SSD system.

## **DISTRIBUTION**

A copy of this report has been forwarded to the following:

Mr. Don Lindsey  
Timber Del Properties, L.L.C.  
2424 Central Avenue  
Alameda, California 94501

Ms. Georgia Turner  
The Mechanics Bank  
1999 Harrison St., Suite 100  
Oakland, California 94612

Sub-Slab Vapor Mitigation Report  
Searway Property  
649 Pacific Avenue  
Alameda, CA  
December 6, 2007

If you have any questions regarding this investigation and preliminary design report, please call Trinity at (831) 426-5600.

Sincerely,  
**TRINITY SOURCE GROUP, INC.**



David A. Reinsma, PG  
President and Principal Geologist

Warren Chamberlain, PE  
Senior Engineer, No. C 60853

- Attachments
- Table 1 – Sub-Slab Vapor Probe Sample Analytical Data  
(Stoddard Solvent and Volatile Organic Compounds)
  - Table 2 – Sub-Slab Vapor Depressurization Test DPT-1
  - Table 3 – Sub-Slab Vapor Depressurization Test DPT-2
  - Table 4 – Sub-Slab Vapor Depressurization Test Radius of Influence  
Determination
  - Table 5 – Sub-Slab Vacuum Test Analytical Data  
(Stoddard Solvent and Volatile Organic Compounds)
  - Table 6 – Sub-Slab Depressurization Test – Mass Removal Estimate
- 
- Figure 1 – Site Location Map
  - Figure 2 – Sub-Slab Vapor Probe Location Map
  - Figure 3 – Stoddard Solvent in Sub-Slab Vapor Concentration Map
  - Figure 4 – Chloroform in Sub-Slab Vapor Concentration Map
  - Figure 5 – Carbon Tetrachloride in Sub-Slab Vapor Concentration Map
  - Figure 6 – PCE in Sub-Slab Vapor Concentration Map
  - Figure 7 – DPT-1 Vacuum Pressure Relative Influence Map
  - Figure 8 – DPT-2 Vacuum Pressure Relative Influence Map
  - Figure 9 – Sub-Slab Depressurization System Layout
  - Figure 10 – Sub-Slab Depressurization System Layout Process and  
Instrumentation Diagram
  - Figure 11 – Sub-Slab Depressurization System Extraction Well Detail
  - Figure 12 – Sub-Slab Vapor Monitoring Point Detail

*Sub-Slab Vapor Mitigation Report*  
*Searway Property*  
*649 Pacific Avenue*  
*Alameda, CA*  
*December 6, 2007*

- Attachment A – ACHCSA Letter Dated September 21, 2007
- Attachment B – Sub-Slab Vapor Point Sampling Procedures and Field Data  
Sheets
- Attachment C – Certified Analytical Reports and Chain-of-Custody  
Documentation

# TABLES

**Table 1**  
**Sub-Slab Vapor Probe Sample Analytical Data**  
**(Stoddard Solvent and Volatile Organic Compounds)**

Seaway Property  
649 Pacific Avenue  
Alameda, California

Sample ID	Sample Date	Modified EPA Analytical Test Methods											
		TO-3	TO-15										
		Stoddard Solvent (µg/m <sup>3</sup> )	Chloroform (µg/m <sup>3</sup> )	Carbon Tetra- chloride (µg/m <sup>3</sup> )	PCE (µg/m <sup>3</sup> )	Trans-1,2- Dichloro- ethene (µg/m <sup>3</sup> )	cis-1,2- Dichloro- ethene (µg/m <sup>3</sup> )	TCE (µg/m <sup>3</sup> )	Acetone (µg/m <sup>3</sup> )	Freon 11 (µg/m <sup>3</sup> )	Carbon Di- sulfide (µg/m <sup>3</sup> )	Chloro- ethane (µg/m <sup>3</sup> )	Leak Test Compounds 2-propanol (µg/m <sup>3</sup> )
<b>Sub-Slab Soil Vapor Probe Samples</b>													
VS-1	10/25/2006	4,100	2,500	42,000	6,700	< 87	< 87	< 120	<210	<120	<68	<58	<220
VS-1 DUP	10/25/2006	4,100	2,400	40,000	7,000	< 170	< 170	< 240	<420	<250	<140	<120	<430
VS-2	10/25/2006	1,600	740	8,400	5,800	< 17	< 17	< 23	<41	<24	<13	<11	<42
VS-3	10/25/2006	9,100	490	1,400	11,000	70	47	98	<56	<33	<18	<16	<58
VS-3	5/7/2007	--	430	1,500	9,500	51	47	88	41	<24	<13	<11	<42
VS-3	6/4/2007	21,000	--	--	--	--	--	--	--	--	--	--	36,000
VS-3 DUP	6/4/2007	21,000	--	--	--	--	--	--	--	--	--	--	36,000
VS-4	5/7/2007	--	93	15,000	1,600	<34	<34	<46	<82	<49	<27	<23	<85
VS-4	6/4/2007	980	--	--	--	--	--	--	--	--	--	--	<28
VS-5	5/7/2007	--	1,600	5,300	1,700	<12	<12	<16	30	<17	<9.3	<7.9	<29
VS-5	6/4/2007	870	--	--	--	--	--	--	--	--	--	--	160
VS-5 DUP	6/4/2007	--	--	--	--	--	--	--	--	--	--	--	140
VS-6	5/7/2007	*	420	7,500	2,500	< 17	< 17	<23	<41	<24	<13	<11	<42
VS-6	6/4/2007	920	--	--	--	--	--	--	--	--	--	--	42
VS-7	5/7/2007	--	8.3	550	1,900	<4.4	<4.4	<5.9	16	20	6.8	<2.9	<11
VS-7	6/4/2007	8,800	--	--	--	--	--	--	--	--	--	--	15,000
VS-8	5/7/2007	--	44	94	1,500	<4.4	<4.4	<6.0	18	<6.3	<3.5	<3.0	<11
VS-8	6/4/2007	2,800	--	--	--	--	--	--	--	--	--	--	4,600
VS-9 <sup>a</sup>	5/7/2007	--	590	<7.0	42	<4.4	<4.4	<6.0	160	<6.3	73	4.1	<11
VS-9 <sup>a</sup>	6/4/2007	<310	--	--	--	--	--	--	--	--	--	--	200

**Table 1**  
**Sub-Slab Vapor Probe Sample Analytical Data**  
**(Stoddard Solvent and Volatile Organic Compounds)**

Searway Property  
649 Pacific Avenue  
Alameda, California

Sample ID	Sample Date	Modified EPA Analytical Test Methods											
		TO-3		TO-15									
		Stoddard Solvent (µg/m <sup>3</sup> )	Chloroform (µg/m <sup>3</sup> )	Carbon Tetra- chloride (µg/m <sup>3</sup> )	PCE (µg/m <sup>3</sup> )	Trans-1,2- Dichloro- ethene (µg/m <sup>3</sup> )	cis-1,2- Dichloro- ethene (µg/m <sup>3</sup> )	TCE (µg/m <sup>3</sup> )	Acetone (µg/m <sup>3</sup> )	Freon 11 (µg/m <sup>3</sup> )	Carbon Di- sulfide (µg/m <sup>3</sup> )	Chloro- ethane (µg/m <sup>3</sup> )	Leak Test Compounds 2-propanol (µg/m <sup>3</sup> )

**Shroud Atmosphere Samples for Leak Test Compound Confirmation**

VS-7QC	5/7/2007	--	--	--	--	--	--	--	--	--	--	--	99,000
VS-7-QC	6/4/2007	--	--	--	--	--	--	--	--	--	--	--	150,000
VS-8QC	5/7/2007	--	--	--	--	--	--	--	--	--	--	--	530,000 E
SFRWQCB ESLs (µg/m <sup>3</sup> ) Commercial/Industrial Property Use (February 2005)													
		26,000	1,500	190	1,400	41,000	20,000	4,100	1,800,000	NA	NA	9,900	NA

**Sub-Slab Vapor Probe Sample Analytical Data**

VS-11 <sup>b</sup>	10/17/2007	3,800	32	970	3,600	ND<7.2	ND<7.2	ND<9.8	39	ND<10	ND<5.7	ND<4.8	ND<18
VS-11 DUP	10/17/2007	3,700	--	--	--	--	--	--	--	--	--	--	--
VS-13 <sup>c</sup>	10/18/2007	5,600	ND<5.6	ND<7.2	26	ND<4.5	ND<4.5	ND<6.2	47	55	ND<3.6	ND<3.0	ND<11

SFRWQCB ESLs (µg/m <sup>3</sup> ) Commercial/Industrial Property Use (November 2007)													
		26,000	1,500	63	1,400	41,000	20,000	4,100	1,800,000	NA	NA	58,000	NA
SFRWQCB ESLs (ug/m <sup>3</sup> ) Residential Exposure (November 2007)													
		10,000	460	19	410	15,000	7,300	1,200	660,000	NA	NA	21,000	NA



**Table 1**  
**Sub-Slab Vapor Probe Sample Analytical Data**  
**(Stoddard Solvent and Volatile Organic Compounds)**

Searway Property  
649 Pacific Avenue  
Alameda, California

Sample ID	Sample Date	Modified EPA Analytical Test Methods										
		TO-3		TO-15								
		Stoddard Solvent (µg/m <sup>3</sup> )	Chloroform (µg/m <sup>3</sup> )	Carbon Tetra- chloride (µg/m <sup>3</sup> )	PCE (µg/m <sup>3</sup> )	Trans-1,2- Dichloro- ethene (µg/m <sup>3</sup> )	cis-1,2- Dichloro- ethene (µg/m <sup>3</sup> )	TCE (µg/m <sup>3</sup> )	Acetone (µg/m <sup>3</sup> )	Freon 11 (µg/m <sup>3</sup> )	Carbon Di- sulfide (µg/m <sup>3</sup> )	Chloro- ethane (µg/m <sup>3</sup> )

**Notes:**

DUP = Duplicate sample  
EPA = Environmental Protection Agency  
PCE = Tetrachloroethene  
TCE = Trichloroethene  
µg/m<sup>3</sup> = micrograms per cubic meter  
< = not detected at or above value shown

NA = not available or applicable  
-- = not analyzed  
E = exceeds instrument calibration range  
a = 2-Butanone (Methyl Ethyl Ketone) at 12 µg/m<sup>3</sup>  
b = Ethanol at 58 µg/m<sup>3</sup>  
c = 2-Butanone (Methyl Ethyl Ketone) at 6.4 µg/m<sup>3</sup> and Tetra Hydrofuran at 4.1 µg/m<sup>3</sup>

SFRWQCB ESLs = San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs), shallow gas screening levels for evaluation of potential vapor intrusion concerns (Table E-2), Commercial/Industrial Land use, - February 2005  
SFRWQCB ESLs = San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs), shallow gas screening levels for evaluation of potential vapor intrusion concerns (Table E), Commercial/Industrial Land use and Residential Exposure, - November 2007

**BOLD** = chemical exceeds its respective ESL

The leak test compound, Isopropyl Alcohol (2-propanol), was not detected in any sub-slab probe sample analyzed

**Table 2**  
**Sub-Slab Vapor Depressurization Test DPT-1**

Searway Property  
649 Pacific Avenue  
Alameda, California

Extraction Well DPT-1						Observation Wells																					
Extraction Point Operation Parameters						VS-1	VS-2	VS-3	VS-4	VS-5	VS-6	VS-7	VS-8	VS-9	VS-10	VS-11	VS-12	VS-13	VS-14	VS-15	VS-16	VS-17	VS-18	VS-19	VS-20	VS-21	VS-22
Time (24 hour)	Test Level	Flow Rate (scfm)	Air-flow Velocity thru 2" ID PVC (fpm)	Volume of Air Evacuated (cf)	PID (ppm)	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	Dist to DPT-1	
						8 ft	4ft	6 ft	38 ft	53 ft	36 ft	35 ft	51 ft	24ft	91 ft	73 ft	68 ft	66 ft	85 ft	70 ft	46 ft	56 ft	41 ft	29 ft	20 ft	18 ft	21 ft
						Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	
14:00	Background	0.0	0.0																								
14:01	Start	9.6	440	0	<0.001	-0.04	--	-0.03	0.00	-0.03	-0.03	-0.02	-0.02	0.00	--	0.00	-0.03	0.00	-0.03	-0.03	-0.02	-0.02	-0.03	-0.02	-0.03	-0.03	0.00
14:30	Step 1	9.8	450	278	<0.001	-0.04	--	-0.03	-0.04	-0.04	-0.04	-0.03	-0.02	0.00	--	-0.01	-0.03	0.00	-0.03	-0.03	-0.02	-0.02	-0.03	-0.03	-0.03	-0.03	0.00
15:00	Step 1	9.8	450	295	<0.001	-0.05	--	-0.04	-0.04	-0.04	-0.04	-0.03	-0.02	0.00	--	-0.01	-0.03	0.00	-0.03	-0.03	-0.02	-0.02	-0.02	-0.04	-0.03	-0.04	0.00
15:02	Step 2	15.3	700	20	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15:10	Step 2	15.3	700	122	<0.001	-0.05	--	-0.06	-0.04	-0.03	-0.04	-0.03	-0.02	0.00	--	-0.01	-0.03	0.00	-0.03	-0.03	-0.02	-0.02	-0.03	-0.04	-0.04	-0.04	0.00
15:45	Step 2	15.3	700	535	<0.001	-0.05	--	-0.06	-0.04	-0.03	-0.04	-0.03	-0.02	0.00	--	-0.01	-0.03	0.00	-0.03	-0.03	-0.02	-0.02	-0.03	-0.04	-0.04	-0.04	0.00
16:00	Step 2	15.3	700	229	<0.001	-0.05	--	-0.07	-0.04	-0.03	-0.04	-0.03	-0.02	0.00	--	-0.01	-0.03	0.00	-0.03	-0.03	-0.02	-0.02	-0.03	-0.04	-0.05	-0.05	0.00
16:03	Step 3	24.0	1100	46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16:10	MAX	24.0	1100	168	<0.001	-0.10	--	-0.10	-0.04	-0.03	-0.04	-0.03	-0.03	0.00	--	-0.01	-0.03	0.00	-0.04	-0.03	-0.02	-0.02	-0.03	-0.05	-0.06	-0.05	0.00
16:40	MAX	24.0	1100	720	<0.001	-0.10	--	-0.15	-0.04	-0.03	-0.05	-0.04	-0.03	0.00	--	-0.01	-0.03	0.00	-0.04	-0.03	-0.03	-0.03	-0.04	-0.06	-0.06	-0.05	0.00
17:10	MAX	24.0	1100	720	<0.001	-0.11	--	-0.17	-0.05	-0.03	-0.05	-0.04	-0.03	0.00	--	-0.01	-0.03	0.00	-0.03	-0.03	-0.03	-0.03	-0.04	-0.06	-0.06	-0.05	0.00
17:13	Stop Test			72																							0.00
Total air volume extracted				3,204																							

Notes:

Dist.	= Distance in feet	ID	= Internal diameter
in. H <sub>2</sub> O	= Vacuum pressure measured in inches of water	PVC	= Poly Vinyl Chloride pipe
ft	= feet		
scfm	= standard cubic feet per minute	0.0218	= cross-sectional area of 2-inch diameter PVC pipe in feet <sup>2</sup>
fpm	= feet per minute		
(-- ) or NM	= not measured		
H <sub>2</sub> O	= water		
ppm	= parts per million		
pid	= photoionization detector		
cf	= cubic feet		

**Table 3**  
**Sub-Slab Vapor Depressurization Test DPT-2**

Searway Property  
649 Pacific Avenue  
Alameda, California

Extraction Well DPT-2						Observation Wells																						
Extraction Point Operation Parameters						VS-1	VS-2	VS-3	VS-4	VS-5	VS-6	VS-7	VS-8	VS-9	VS-10	VS-11	VS-12	VS-13	VS-14	VS-15	VS-16	VS-17	VS-18	VS-19	VS-20	VS-21	VS-22	
Time (24 hour)	Test Level	Flow Rate (scfm)	Air-flow Velocity thru 2" ID PVC (fpm)	Volume of Air Evacuated (cf)	PID (ppm)	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2	Dist to DPT-2		
						51 ft	48 ft	58 ft	32 ft	3 ft	23 ft	64 ft	100 ft	69 ft	54 ft	22 ft	33 ft	60 ft	104 ft	47 ft	32 ft	19 ft	10 ft	22 ft	31 ft	68 ft	57 ft	
						Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)		
9:33	Background	0.0	0.0			0.00	--	+0.04	-0.02	-0.03	0.00	-0.01	-0.01	-0.01	--	0.00	-0.04	0.00	-0.03	--	-0.02	-0.01	0.00	-0.04	+0.07	+0.03	0.00	
10:00	Start	9.2	420	247	0.312	-0.02	--	-0.02	-0.02	-0.12	-0.03	-0.02	-0.02	0.00	--	0.00	-0.03	0.00	-0.02	--	-0.03	-0.03	-0.06	-0.01	-0.02	-0.04	0.00	
10:30	Step 1	9.4	430	275	0.083	-0.02	--	0.00	-0.03	-0.14	-0.02	-0.02	-0.02	0.00	--	0.00	-0.02	0.00	-0.03	--	-0.03	0.00	-0.06	-0.04	-0.02	-0.03	0.00	
11:00	Step 1	9.4	430	281	0.002	-0.03	--	-0.02	-0.04	-0.28	-0.03	-0.03	-0.02	0.00	--	0.00	-0.02	0.00	-0.03	--	-0.02	0.00	-0.13	-0.04	-0.02	-0.02	0.00	
11:10	Step 2	15.3	700	94	0.014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-0.15	-0.06	-0.03	--	-0.01
11:30	Step 2	15.3	700	305	NM	-0.03	--	-0.03	-0.02	-0.33	-0.03	-0.03	-0.01	0.00	--	0.00	-0.02	0.00	-0.03	--	-0.02	0.00	-0.16	-0.06	-0.03	-0.02	-0.01	
12:00	Step 2	15.3	700	458	NM	-0.03	--	-0.04	-0.02	-0.35	-0.03	-0.03	-0.03	0.00	--	0.00	-0.02	0.00	-0.03	-0.03	-0.02	0.00	-0.16	-0.07	-0.03	-0.03	-0.01	
12:30	Step 2	15.3	700	458	0.028	-0.04	--	-0.04	-0.04	-0.38	-0.05	-0.03	-0.03	0.00	--	0.00	-0.03	0.00	-0.03	-0.03	-0.02	0.00	-0.16	-0.08	-0.03	-0.03	0.00	
13:00	Step 2	15.3	700	458	0.005	-0.04	--	-0.04	-0.04	-0.40	-0.06	-0.03	-0.03	0.00	--	0.00	-0.03	0.00	-0.03	-0.03	-0.02	0.00	-0.16	-0.08	-0.03	-0.03	0.00	
13:02	Step 3	19.6	900	31	0.002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
13:05	MAX	19.6	900	59	<0.001	-0.03	--	-0.04	-0.04	-0.51	-0.06	-0.03	-0.03	0.00	--	0.00	-0.03	0.00	-0.03	-0.03	-0.03	-0.02	-0.19	-0.08	-0.04	-0.03	0.00	
13:30	MAX	19.6	900	491	<0.001	-0.04	--	-0.04	-0.05	-0.55	-0.08	-0.03	-0.03	0.00	--	0.00	-0.03	0.00	-0.03	-0.04	-0.04	-0.03	-0.22	-0.10	-0.04	-0.03	0.00	
14:00	Stop Test			589																								
Total air volume extracted				3,747																								

Notes:

Dist.	= Distance in feet	ID	= Internal diameter
in. H <sub>2</sub> O	= Vacuum pressure measured in inches of water	PVC	= Poly Vinyl Chloride pipe
ft	= feet	0.0218	= cross-sectional area of 2-inch diameter PVC pipe in feet <sup>2</sup>
scfm	= standard cubic feet per minute		
fpm	= feet per minute		
(-- ) or NM	= not measured		
H <sub>2</sub> O	= water		
ppm	= parts per million		
pid	= photoionization detector		
cf	= cubic feet		

**Table 4**  
**Sub-Slab Vapor Depressurization Test**  
**Radius of Influence Determination**

Searway Property  
649 Pacific Avenue  
Alameda, California

**Sub Slab Test DPT-1**

Obs Point	Distance (feet)	Start Pressure (in. H <sub>2</sub> O)	End Pressure (in. H <sub>2</sub> O)	Pressure Difference (in. H <sub>2</sub> O)
VS-3	6	-0.03	-0.17	-0.14
VS-1	8	-0.04	-0.11	-0.07
VS-4	38	0.00	-0.05	-0.05
VS-20	20	-0.03	-0.07	-0.04
VS-19	29	-0.02	-0.06	-0.04
VS-21	18	-0.03	-0.06	-0.03
VS-6	36	-0.03	-0.05	-0.02
VS-7	35	-0.02	-0.04	-0.02
VS-18	41	-0.03	-0.04	-0.01
VS-11	73	0.00	-0.01	-0.01
VS-8	51	-0.02	-0.03	-0.01
VS-16	46	-0.02	-0.03	-0.01
VS-17	56	-0.02	-0.03	-0.01
VS-5	53	-0.03	-0.03	0.00
VS-9	24	0.00	0.00	0.00
VS-12	68	-0.03	-0.03	0.00
VS-13	66	0.00	0.00	0.00
VS-14	85	-0.03	-0.03	0.00
VS-15	70	-0.03	-0.03	0.00
VS-22	21	0.00	0.00	0.00

**Sub Slab Test DPT-2**

Obs Point	Dist (feet)	Start Pressure (in. H <sub>2</sub> O)	End Pressure (in. H <sub>2</sub> O)	Pressure Difference (in. H <sub>2</sub> O)
VS-5	3	-0.03	-0.55	-0.52
VS-18	10	0.00	-0.22	-0.22
VS-20	31	0.07	-0.04	-0.11
VS-3	58	0.04	-0.04	-0.08
VS-6	23	0.00	-0.08	-0.08
VS-19	22	-0.04	-0.10	-0.06
VS-21	68	0.03	-0.03	-0.06
VS-1	51	0.00	-0.04	-0.04
VS-15	47	0.00	-0.04	-0.04
VS-4	32	-0.02	-0.05	-0.03
VS-16	32	-0.02	-0.04	-0.02
VS-7	64	-0.01	-0.03	-0.02
VS-8	100	-0.01	-0.03	-0.02
VS-17	19	-0.01	-0.03	-0.02
VS-11	22	0.00	0.00	0.00
VS-13	60	0.00	0.00	0.00
VS-14	104	-0.03	-0.03	0.00
VS-22	57	0.00	0.00	0.00
VS-9	69	-0.01	0.00	0.01
VS-12	33	-0.04	-0.03	0.01

**Table 5  
Sub-Slab Vacuum Test Analytical Data  
(Stoddard Solvent and Volatile Organic Compounds)**

Searway Property  
649 Pacific Avenue  
Alameda, California

Sample ID	Sample Date	Modified EPA Analytical Test Methods												
		TO-3		TO-15										
		Stoddard Solvent ( $\mu\text{g}/\text{m}^3$ )	Chloroform ( $\mu\text{g}/\text{m}^3$ )	Carbon Tetra- chloride ( $\mu\text{g}/\text{m}^3$ )	PCE ( $\mu\text{g}/\text{m}^3$ )	1,2,4-Tri- methyl benzene ( $\mu\text{g}/\text{m}^3$ )	Iso- propanol ( $\mu\text{g}/\text{m}^3$ )	Total Xylenes ( $\mu\text{g}/\text{m}^3$ )	Acetone ( $\mu\text{g}/\text{m}^3$ )	Styrene ( $\mu\text{g}/\text{m}^3$ )	Carbon Di- sulfide ( $\mu\text{g}/\text{m}^3$ )	Toluene ( $\mu\text{g}/\text{m}^3$ )	Ethyl acetate ( $\mu\text{g}/\text{m}^3$ )	Other compounds ( $\mu\text{g}/\text{m}^3$ )
DPT-1-STEP1	10/31/2007	ND<1,600 <sup>a</sup>	23	120	120	13	53	34.8	52	6.6	12	65	22	b,c
DPT-1-STEP3	10/31/2007	ND<1,600	17	100	95	7.9	40	46.7	42	6.1	8.5	43	13	b
DPT-2-STEP1	10/31/2007	2,200	300	1,800	450	10	75	50	83	6.8	8.8	64	ND<3.6	c
DPT-2-STEP3	10/31/2007	3,000	270	1,700	610	10	230	43.9	67	5.9	11	70	ND<3.6	d
<b>SFRWQCB ESLs (<math>\mu\text{g}/\text{m}^3</math>) Commercial/Industrial Property Use</b>														
		72,000	1,500	63	1,400	NA	NA	NA	1,800,000	53,000	NA	180,000	NA	
<b>SFRWQCB ESLs (<math>\mu\text{g}/\text{m}^3</math>) Residential Exposure</b>														
		26,000	460	19	410	NA	NA	NA	660,000	19,000	NA	63,000	NA	

**Notes:**

DUP = Duplicate sample

NA = not available or applicable

EPA = Environmental Protection Agency

-- = not analyzed

PCE = Tetrachloroethene

$\mu\text{g}/\text{m}^3$  = micrograms per cubic meter

ND< = not detected at or above value shown

SFRWQCB ESLs = San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs), shallow gas screening levels for evaluation of potential vapor intrusion concerns (Table E-2), Commercial/Industrial Land use, - February 2005

**BOLD** = chemical exceeds its respective ESL

a = Hydrocarbons present in the gasoline range quantified as Stoddard Solvent. Chromatogram does not resemble that of Stoddard Solvent pattern.

b = 2-Butanone (MEK), (15  $\mu\text{g}/\text{m}^3$  in DPT-1-STEP1) and (12  $\mu\text{g}/\text{m}^3$  in DPT-1-STEP3)

c = 4-Ethyl Toluene (10  $\mu\text{g}/\text{m}^3$  in DPT-1-STEP1) and (9.8  $\mu\text{g}/\text{m}^3$  in DPT-2-STEP1)

d = Benzene (4.8  $\mu\text{g}/\text{m}^3$  in DPT-2-STEP3)

**Table 6**  
**Sub-Slab Depressurization Test - Mass Removal Estimate**

Searway Property  
 649 Pacific Avenue  
 Alameda, California

Compound	Flow Rate (cfm)	Extracted Air Volume (m <sup>3</sup> /hr)	Influent Total VOCs μg/m <sup>3</sup>	Pounds of VOCs Extracted (lbm/hour)	BAAQMD (1-hr max) Acute Trigger Level (lbm/hour)	Operation Hour (hr)	Pounds of VOCs Extracted (lbm/day)	Total Pounds of VOCs Extracted (lbm/yr)	BAAQMD Chronic Trigger Level (lbm/yr)
<b>At maximum rated volumetric flow rate for Shop-Vac air-flow</b>									
Stoddard	180	306	3,000	2.02E-03	--	24.0	4.86E-02	17.73	--
CT	180	306	1,800	1.21E-03	4.20E+00	24.0	2.91E-02	10.64	4.3
Chloroform	180	306	300	2.02E-04	3.30E-01	24.0	4.86E-03	1.77	34.0
TCE	180	306	0	6.61E-08	--	24.0	1.59E-06	0.00	91.0
PCE	180	306	650	4.38E-04	4.40E+01	24.0	1.05E-02	3.84	30.0
Total Mass				3.88E-03			0.093	33.98	
<b>At maximum allowable volumetric flow rate per BAAQMD Trigger Levels</b>									
Stoddard	72	122	3,000	8.10E-04	--	24.0	1.94E-02	7.09	--
CT	72	122	1,800	4.86E-04	4.20E+00	24.0	1.17E-02	4.25	4.3
Chloroform	72	122	300	8.10E-05	3.30E-01	24.0	1.94E-03	0.71	34.0
TCE	72	122	0	2.64E-08	--	24.0	6.35E-07	0.00	91.0
PCE	72	122	650	1.75E-04	4.40E+01	24.0	4.21E-03	1.54	30.0
Total Mass				1.55E-03			0.037	13.59	
<b>At maximum observed diagnostic test volumetric flow rate</b>									
Stoddard	24	41	3,000	2.70E-04	--	24.0	6.48E-03	2.36	--
CT	24	41	1,800	1.62E-04	4.20E+00	24.0	3.89E-03	1.42	4.3
Chloroform	24	41	300	2.70E-05	3.30E-01	24.0	6.48E-04	0.24	34.0
TCE	24	41	0	8.81E-09	--	24.0	2.12E-07	0.00	91.0
PCE	24	41	650	5.85E-05	4.40E+01	24.0	1.40E-03	0.51	30.0
Total Mass				5.17E-04			0.012	4.53	

Notes:

- CT = Carbon Tetrachloride
- PCE = Tetrachloroethane
- TCE = Trichloroethene
- vocs = volatile organic compounds
- cfm = cubic feet per minute
- lbm/day = pound mass per day
- lbm/yr = pound mass per year
- lbm/hour = pound mass per hour
- hr = hour

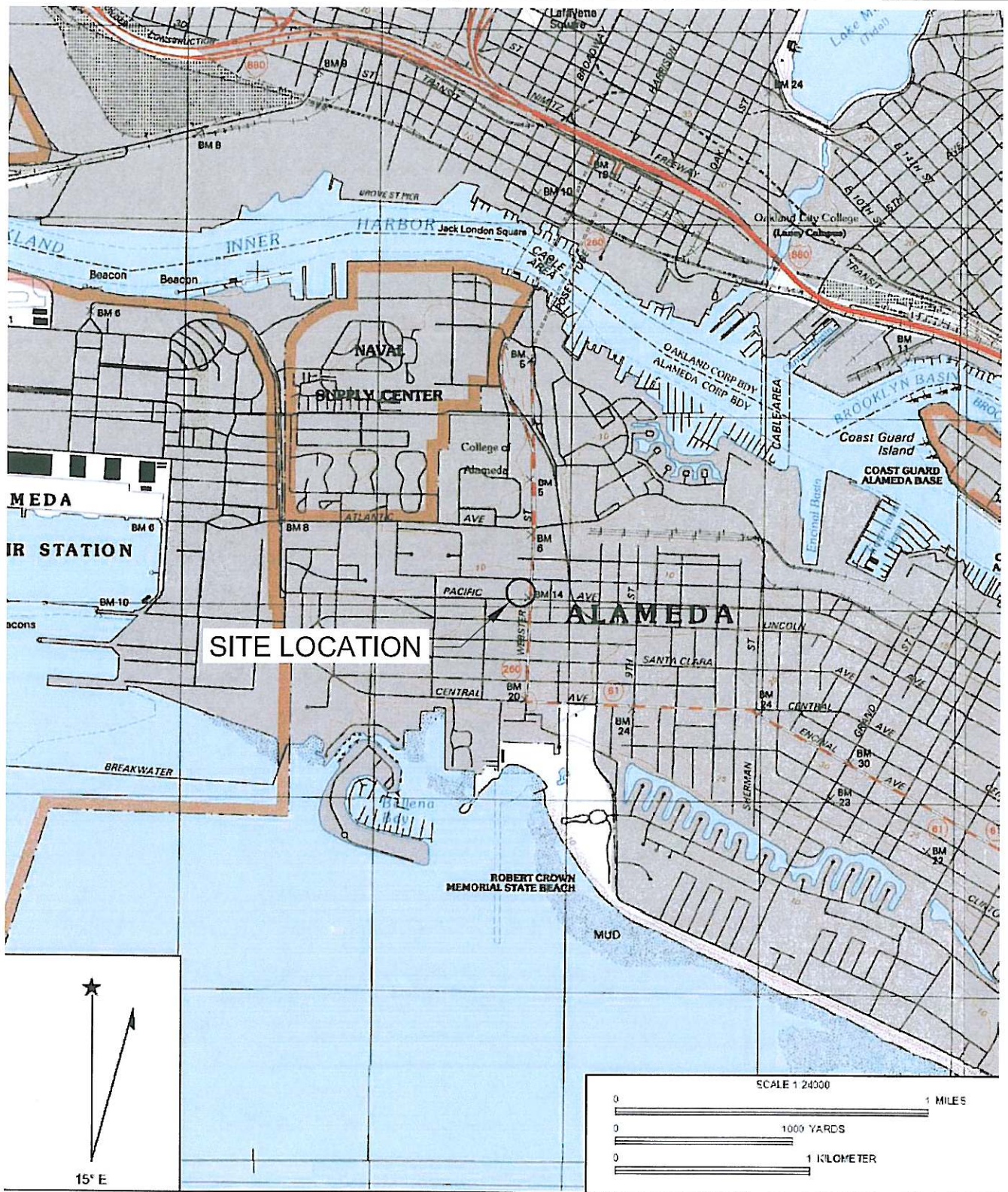
-- = BAAQMD Trigger Level Not Established (per table 2-5-1)  
 BAAQMD = Bay Area Air Quality Management District

Conversion factors

- 1 ft<sup>3</sup> = 0.02832 m<sup>3</sup>
- 1 cfm = 1.699 (1.700) m<sup>3</sup>/hr
- 1 pound (lbm) = 453.6 grams



# FIGURES



Name: OAKLAND WEST  
Date: 5/4/2006

Location: 037° 46' 34.86" N 122° 16' 37.65" W NAD 27  
Caption: San Francisco Bay, Oakland West Quadrangle - 1:24,000

REF. 103\_002\SLM.DWG  
BASEMAP FROM MAPTECH, INC.

PREPARED BY



Tel: (831) 426-5600 Fax: (831) 426-5602

### SITE LOCATION MAP

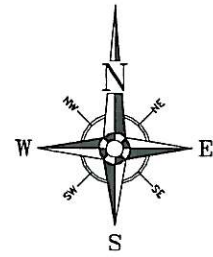
Searway Property  
649 Pacific Avenue  
Alameda, California

PROJECT:  
103.005.005

FIGURE:

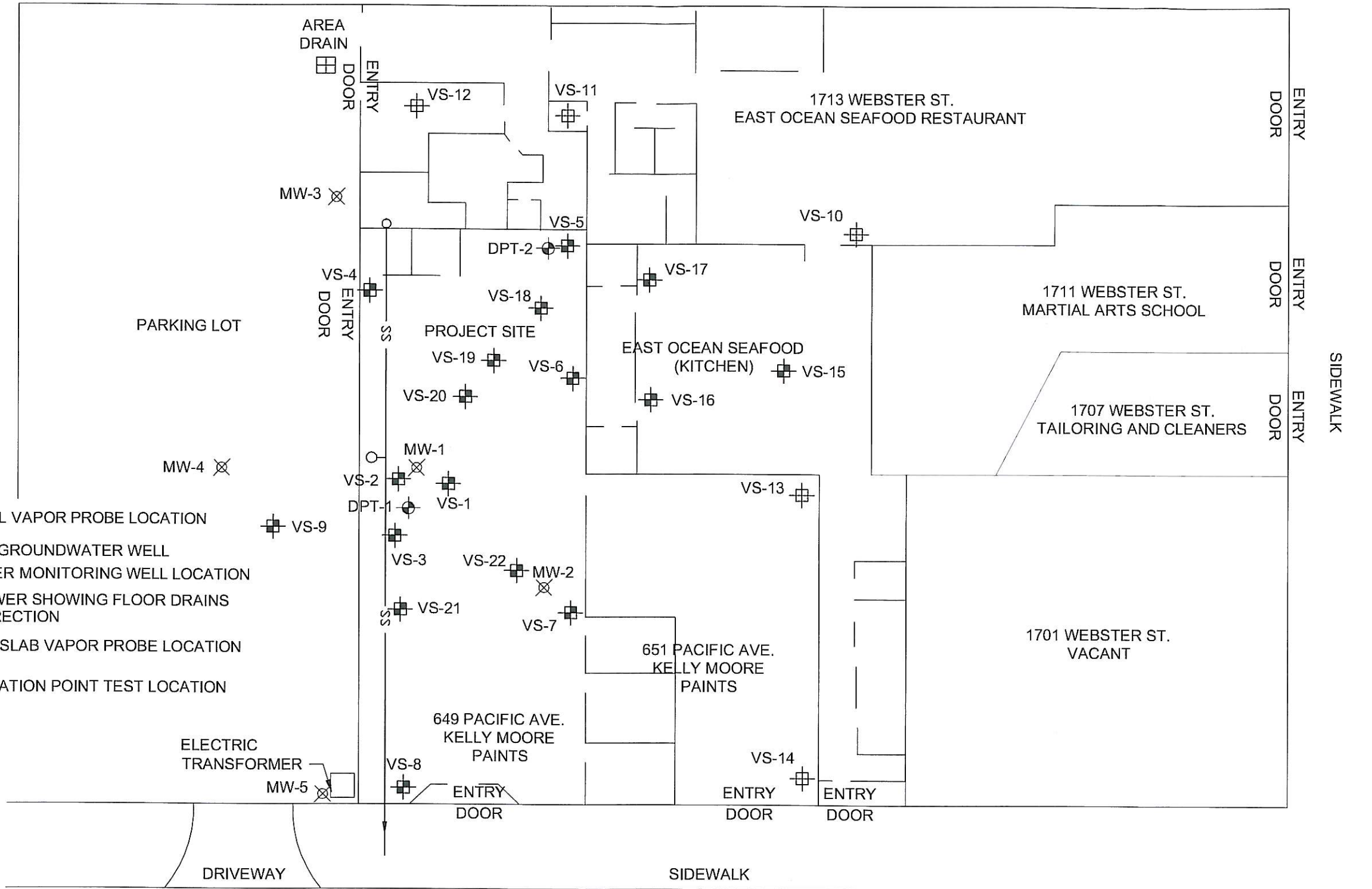
1





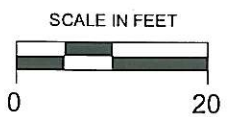
CITY OF ALAMEDA  
FIRE STATION

COURTYARD AND ASSISTED LIVING



- LEGEND**
- VS-1 [Symbol] SUB-SLAB SOIL VAPOR PROBE LOCATION
  - MW-6 [Symbol] VICINITY SITE GROUNDWATER WELL
  - MW-1 [Symbol] GROUNDWATER MONITORING WELL LOCATION
  - ss— [Symbol] SANITARY SEWER SHOWING FLOOR DRAINS AND FLOW DIRECTION
  - [Symbol] PHASE III SUB-SLAB VAPOR PROBE LOCATION
  - DPT-1 [Symbol] DEPRESSURIZATION POINT TEST LOCATION

WEBSTER STREET



REF. 103\_002\SVPROBE2.DWG  
BASEMAP FROM RRM, INC.

PREPARED BY

**TRINITY**  
source group, inc.  
500 Chestnut Street, Suite 225  
Santa Cruz, CA. 95060  
Tel: (831) 426-5600 Fax: (831) 426-5602

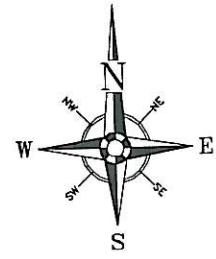
**PACIFIC AVENUE**

**SUB-SLAB VAPOR PROBE LOCATION MAP**

Searway Property  
649 Pacific Avenue  
Alameda, California

PROJECT:  
103.005.005

FIGURE:  
2



COURTYARD AND ASSISTED LIVING

1713 WEBSTER ST.  
EAST OCEAN SEAFOOD RESTAURANT

1711 WEBSTER ST.  
MARTIAL ARTS SCHOOL

1707 WEBSTER ST.  
TAILORING AND CLEANERS

1701 WEBSTER ST.  
VACANT

651 PACIFIC AVE.  
KELLY MOORE  
PAINTS

649 PACIFIC AVE.  
KELLY MOORE  
PAINTS

CITY OF ALAMEDA  
FIRE STATION

PARKING LOT

PROJECT SITE

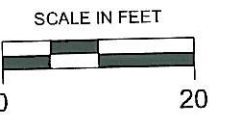
EAST OCEAN SEAFOOD  
(KITCHEN)

WEBSTER STREET

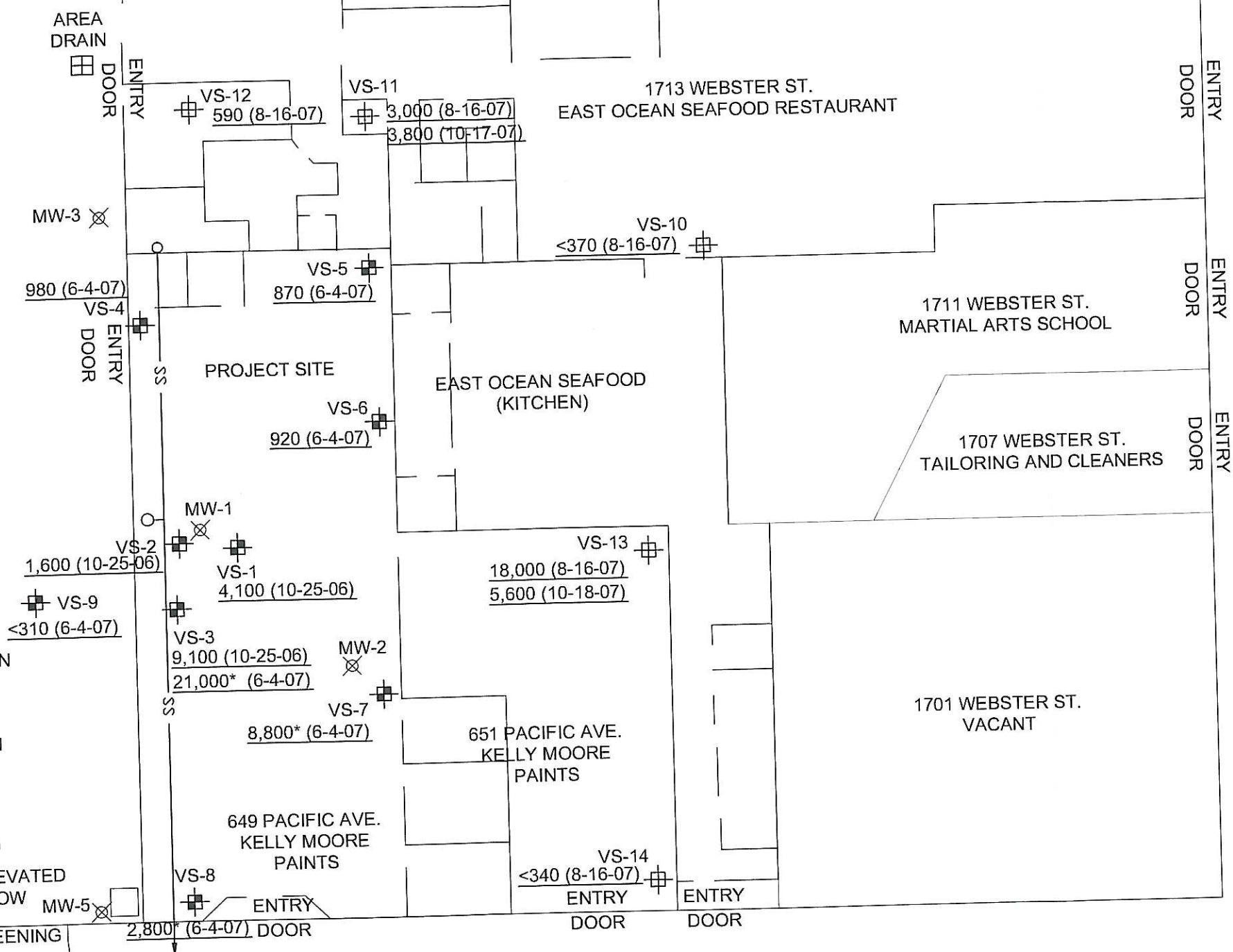
SIDEWALK

SIDEWALK

PACIFIC AVENUE



- LEGEND**
- VS-1 [Symbol] SUB-SLAB SOIL VAPOR PROBE LOCATION
  - MW-6 [Symbol] VICINITY SITE GROUNDWATER WELL
  - MW-1 [Symbol] GROUNDWATER MONITORING WELL LOCATION
  - SS— [Symbol] SANITARY SEWER SHOWING FLOOR DRAINS AND FLOW DIRECTION
  - [Symbol] PHASE III SUB-SLAB VAPOR PROBE LOCATION
  - 2,800 [Symbol] STODDARD SOLVENT CONCENTRATION IN SUB-SLAB VAPOR IN MICROGRAMS PER CUBIC METER [ $\mu\text{g}/\text{m}^3$ ], (SAMPLE DATES: 10-25-06, 6-4-07 AND 8-16-07)
  - \* LEAK TEST COMPOUND DETECTED AT AN ELEVATED CONCENTRATION; RESULT MAY BE BIASED LOW
  - STODDARD SOLVENT ENVIRONMENTAL SCREENING LEVEL FOR COMMERCIAL/INDUSTRIAL PROPERTY USE=26,000  $\mu\text{g}/\text{m}^3$



REF. 103\_002\SVPROBE.DWG  
BASEMAP FROM RRM, INC.



Tel: (831) 426-5600 Fax: (831) 426-5602

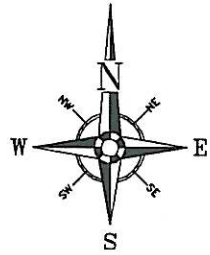
**STODDARD SOLVENT IN SUB-SLAB VAPOR CONCENTRATION MAP**

Searway Property  
649 Pacific Avenue  
Alameda, California

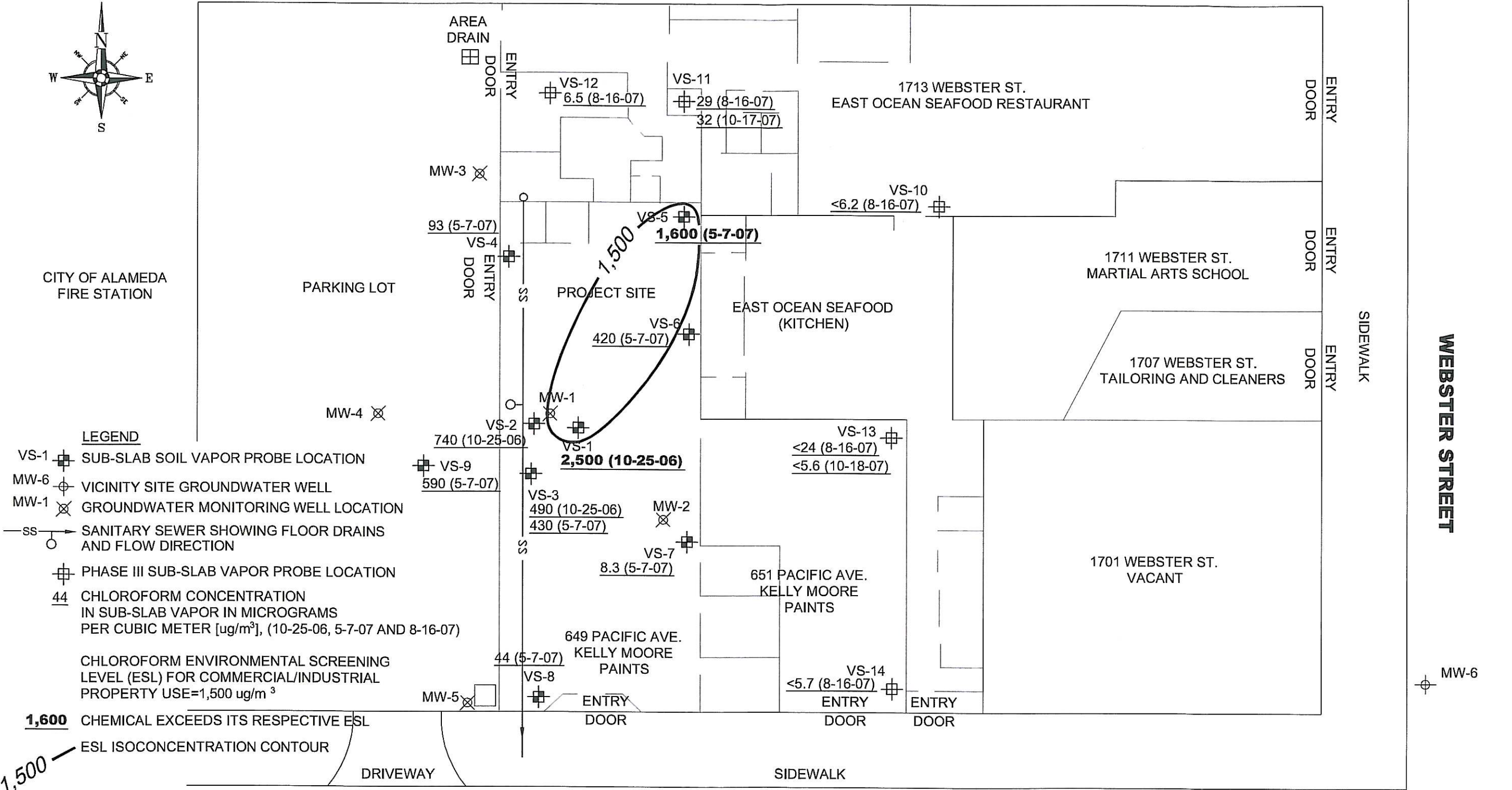
PROJECT:  
103.005.005

FIGURE:  
3





COURTYARD AND ASSISTED LIVING



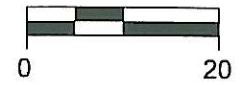
**LEGEND**

- VS-1 SUB-SLAB SOIL VAPOR PROBE LOCATION
- MW-6 VICINITY SITE GROUNDWATER WELL
- MW-1 GROUNDWATER MONITORING WELL LOCATION
- SS— SANITARY SEWER SHOWING FLOOR DRAINS AND FLOW DIRECTION
- PHASE III SUB-SLAB VAPOR PROBE LOCATION
- 44 CHLOROFORM CONCENTRATION IN SUB-SLAB VAPOR IN MICROGRAMS PER CUBIC METER [ $\mu\text{g}/\text{m}^3$ ], (10-25-06, 5-7-07 AND 8-16-07)
- CHLOROFORM ENVIRONMENTAL SCREENING LEVEL (ESL) FOR COMMERCIAL/INDUSTRIAL PROPERTY USE=1,500  $\mu\text{g}/\text{m}^3$

**1,600** CHEMICAL EXCEEDS ITS RESPECTIVE ESL

**1,500** — ESL ISOCONCENTRATION CONTOUR

SCALE IN FEET



REF. 103\_002\SVPROBE.DWG  
BASEMAP FROM RRM, INC.

**PACIFIC AVENUE**

**CHLOROFORM IN SUB-SLAB VAPOR CONCENTRATION MAP**

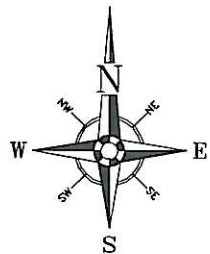
PREPARED BY

**TRINITY**  
source group, inc.  
500 Chestnut Street, Suite 225  
Santa Cruz, CA. 95060  
Tel: (831) 426-5600 Fax: (831) 426-5602

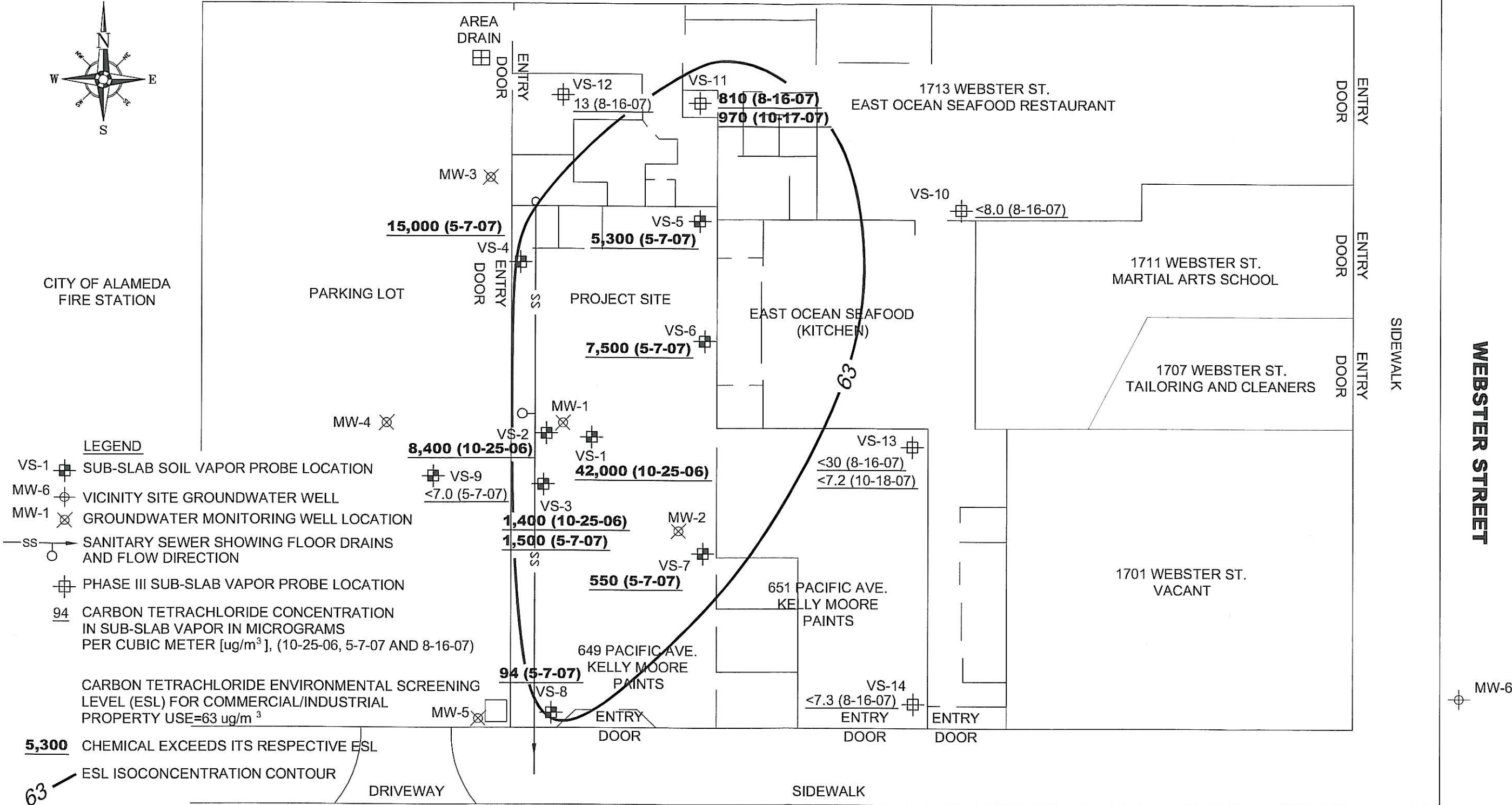
Searway Property  
649 Pacific Avenue  
Alameda, California

PROJECT:  
103.005.005

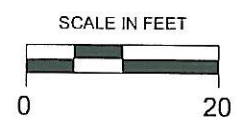
FIGURE:  
4



COURTYARD AND ASSISTED LIVING



- LEGEND**
- VS-1 [Symbol] SUB-SLAB SOIL VAPOR PROBE LOCATION
  - MW-6 [Symbol] VICINITY SITE GROUNDWATER WELL
  - MW-1 [Symbol] GROUNDWATER MONITORING WELL LOCATION
  - SS [Symbol] SANITARY SEWER SHOWING FLOOR DRAINS AND FLOW DIRECTION
  - [Symbol] PHASE III SUB-SLAB VAPOR PROBE LOCATION
  - 94 CARBON TETRACHLORIDE CONCENTRATION IN SUB-SLAB VAPOR IN MICROGRAMS PER CUBIC METER [ug/m<sup>3</sup>], (10-25-06, 5-7-07 AND 8-16-07)
  - CARBON TETRACHLORIDE ENVIRONMENTAL SCREENING LEVEL (ESL) FOR COMMERCIAL/INDUSTRIAL PROPERTY USE=63 ug/m<sup>3</sup>
  - 5,300** CHEMICAL EXCEEDS ITS RESPECTIVE ESL
  - 63 ESL ISOCONCENTRATION CONTOUR



REF. 103\_002\SVPROBE.DWG  
BASEMAP FROM RRM, INC.

PREPARED BY

500 Chestnut Street, Suite 225  
Santa Cruz, CA. 95060

Tel: (831) 426-5600 Fax: (831) 426-5602

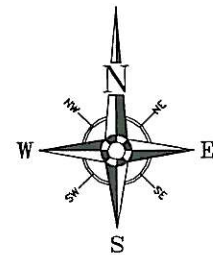
**CARBON TETRACHLORIDE IN SUB-SLAB VAPOR CONCENTRATION MAP**

Searway Property  
649 Pacific Avenue  
Alameda, California

PROJECT:  
103.005.005

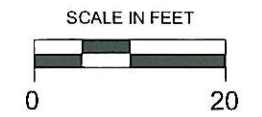
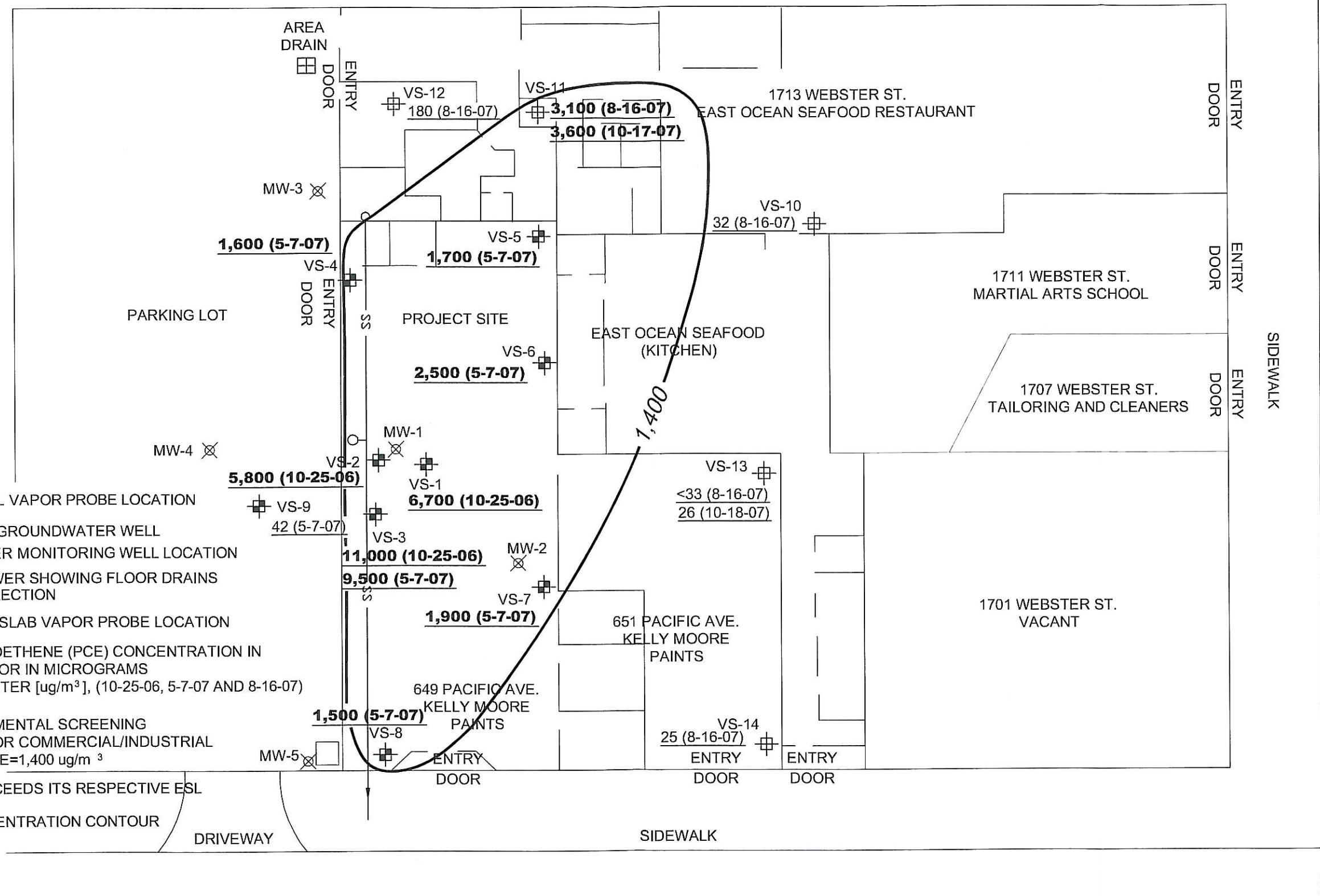
FIGURE:  
5





COURTYARD AND ASSISTED LIVING

- LEGEND**
- VS-1 [Symbol] SUB-SLAB SOIL VAPOR PROBE LOCATION
  - MW-6 [Symbol] VICINITY SITE GROUNDWATER WELL
  - MW-1 [Symbol] GROUNDWATER MONITORING WELL LOCATION
  - SS [Symbol] SANITARY SEWER SHOWING FLOOR DRAINS AND FLOW DIRECTION
  - [Symbol] PHASE III SUB-SLAB VAPOR PROBE LOCATION
  - 1,500 TETRACHLOROETHENE (PCE) CONCENTRATION IN SUB-SLAB VAPOR IN MICROGRAMS PER CUBIC METER [ $\mu\text{g}/\text{m}^3$ ], (10-25-06, 5-7-07 AND 8-16-07)
  - PCE ENVIRONMENTAL SCREENING LEVEL (ESL) FOR COMMERCIAL/INDUSTRIAL PROPERTY USE=1,400  $\mu\text{g}/\text{m}^3$
  - 1,700 CHEMICAL EXCEEDS ITS RESPECTIVE ESL
  - 1,400 ——— ESL ISOCONCENTRATION CONTOUR



REF. 103\_002\SVPROBE.DWG  
BASEMAP FROM RRM, INC.

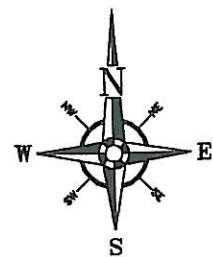
PREPARED BY

**TRINITY**  
source group, inc.  
500 Chestnut Street, Suite 225  
Santa Cruz, CA, 95060  
Tel: (831) 426-5600 Fax: (831) 426-5602

**PCE IN SUB-SLAB VAPOR CONCENTRATION MAP**

Searway Property  
649 Pacific Avenue  
Alameda, California

PROJECT: 103.005.005
FIGURE: 6



COURTYARD AND ASSISTED LIVING

1713 WEBSTER ST.  
EAST OCEAN SEAFOOD RESTAURANT

1711 WEBSTER ST.  
MARTIAL ARTS SCHOOL

1707 WEBSTER ST.  
TAILORING AND CLEANERS

1701 WEBSTER ST.  
VACANT

651 PACIFIC AVE.  
KELLY MOORE  
PAINTS

649 PACIFIC AVE.  
KELLY MOORE  
PAINTS

CITY OF ALAMEDA  
FIRE STATION

PARKING LOT

WEBSTER STREET

- LEGEND**
- VS-1 [Symbol] SUB-SLAB SOIL VAPOR PROBE LOCATION
  - MW-6 [Symbol] VICINITY SITE GROUNDWATER WELL
  - MW-1 [Symbol] GROUNDWATER MONITORING WELL LOCATION
  - SS [Symbol] SANITARY SEWER SHOWING FLOOR DRAINS AND FLOW DIRECTION
  - [Symbol] PHASE III SUB-SLAB VAPOR PROBE LOCATION
  - DPT-1 [Symbol] DEPRESSURIZATION POINT TEST LOCATION
  - (NS) NOT SAMPLED
  - (0.07) VACUUM PRESSURE CHANGE DURING INFLUENCE TEST, IN INCHES OF WATER
  - 0.01 [Symbol] ISOPRESSURE CONTOUR (approximate only)

MW-4 [Symbol]

VS-9 (0.00) [Symbol]

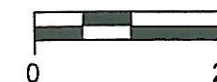
MW-5 [Symbol]

0.01

DRIVEWAY

SIDEWALK

SCALE IN FEET



PACIFIC AVENUE

REF. 103\_002\SVPROBE3.DWG  
BASEMAP FROM RRM, INC.



Tel: (831) 426-5600 Fax: (831) 426-5602

**DPT-1 VACUUM PRESSURE RELATIVE INFLUENCE MAP**

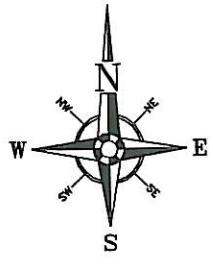
Searway Property  
649 Pacific Avenue  
Alameda, California

PROJECT:  
103.005.005

FIGURE:

7





COURTYARD AND ASSISTED LIVING

1713 WEBSTER ST.  
EAST OCEAN SEAFOOD RESTAURANT

1711 WEBSTER ST.  
MARTIAL ARTS SCHOOL

1707 WEBSTER ST.  
TAILORING AND CLEANERS

1701 WEBSTER ST.  
VACANT

651 PACIFIC AVE.  
KELLY MOORE  
PAINTS

649 PACIFIC AVE.  
KELLY MOORE  
PAINTS

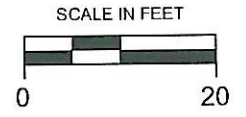
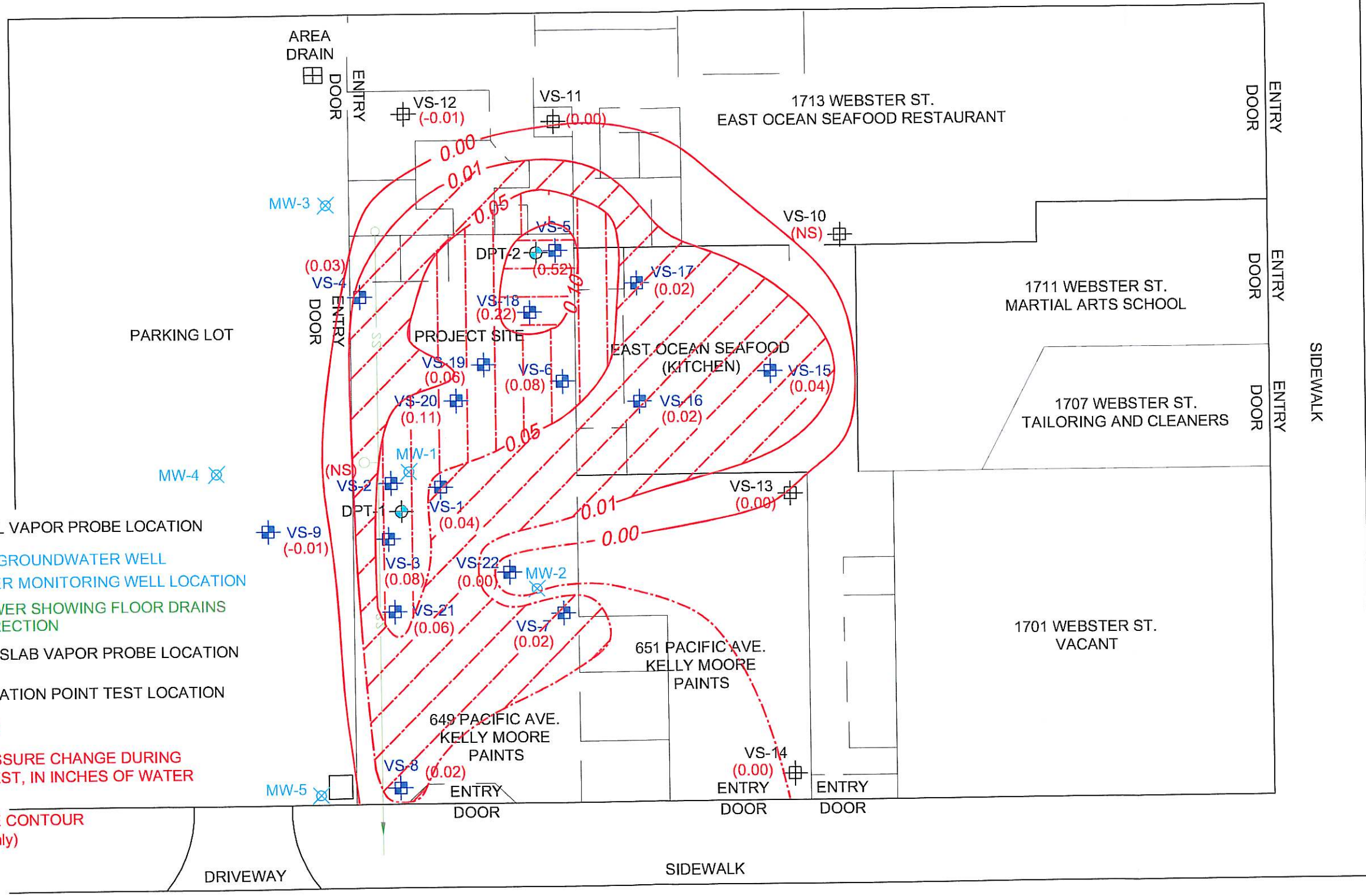
CITY OF ALAMEDA  
FIRE STATION

PARKING LOT

WEBSTER STREET

PACIFIC AVENUE

- LEGEND**
- VS-1 [Symbol] SUB-SLAB SOIL VAPOR PROBE LOCATION
  - MW-6 [Symbol] VICINITY SITE GROUNDWATER WELL
  - MW-1 [Symbol] GROUNDWATER MONITORING WELL LOCATION
  - SS [Symbol] SANITARY SEWER SHOWING FLOOR DRAINS AND FLOW DIRECTION
  - [Symbol] PHASE III SUB-SLAB VAPOR PROBE LOCATION
  - DPT-1 [Symbol] DEPRESSURIZATION POINT TEST LOCATION
  - (NS) NOT SAMPLED
  - (0.08) VACUUM PRESSURE CHANGE DURING INFLUENCE TEST, IN INCHES OF WATER
  - 0.01 [Symbol] ISOPRESSURE CONTOUR (approximate only)



REF. 103\_002\SVPROBE3.DWG  
BASEMAP FROM RRM, INC.

PREPARED BY

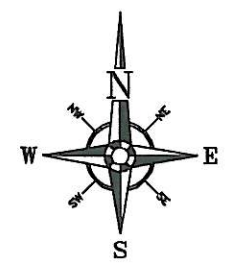
**TRINITY**  
source group, inc.  
500 Chestnut Street, Suite 225  
Santa Cruz, CA. 95060  
Tel: (831) 426-5600 Fax: (831) 426-5602

**DPT-2 VACUUM PRESSURE RELATIVE INFLUENCE MAP**

Searway Property  
649 Pacific Avenue  
Alameda, California

PROJECT:  
103.005.005  
FIGURE:  
8





COURTYARD AND ASSISTED LIVING

1713 WEBSTER ST.  
EAST OCEAN SEAFOOD RESTAURANT

1711 WEBSTER ST.  
MARTIAL ARTS SCHOOL

1707 WEBSTER ST.  
TAILORING AND CLEANERS

1701 WEBSTER ST.  
VACANT

651 PACIFIC AVE.  
KELLY MOORE  
PAINTS

649 PACIFIC AVE.  
KELLY MOORE  
PAINTS

CITY OF ALAMEDA  
FIRE STATION

PARKING LOT

WEBSTER STREET

PACIFIC AVENUE

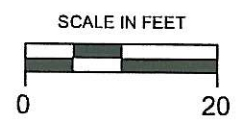
- LEGEND**
- VS-1 [Symbol] SUB-SLAB SOIL VAPOR PROBE LOCATION
  - MW-6 [Symbol] VICINITY SITE GROUNDWATER WELL
  - MW-1 [Symbol] GROUNDWATER MONITORING WELL LOCATION
  - ss [Symbol] SANITARY SEWER SHOWING FLOOR DRAINS AND FLOW DIRECTION
  - [Symbol] PHASE III SUB-SLAB VAPOR PROBE LOCATION
  - DPT-1 [Symbol] DEPRESSURIZATION POINT TEST LOCATION
  - [Symbol] DEPRESSURIZATION PIPE RUNS
  - SSD [Symbol] SUB-SLAB DEPRESSURIZATION SYSTEM

ROOFTOP MOUNTED  
SSD EXHAUST STACK

SSD PIPE RUNS

SSD COMPOUND AREA  
TO BE CONSTRUCTED  
IN ATTIC

SSD EXHAUST PIPE RUNS



REF. 103\_002\SVPROBE3.DWG  
BASEMAP FROM RRM, INC.

PREPARED BY

**TRINITY**  
source group, inc.  
500 Chestnut Street, Suite 225  
Santa Cruz, CA, 95060  
Tel: (831) 426-5600 Fax: (831) 426-5602

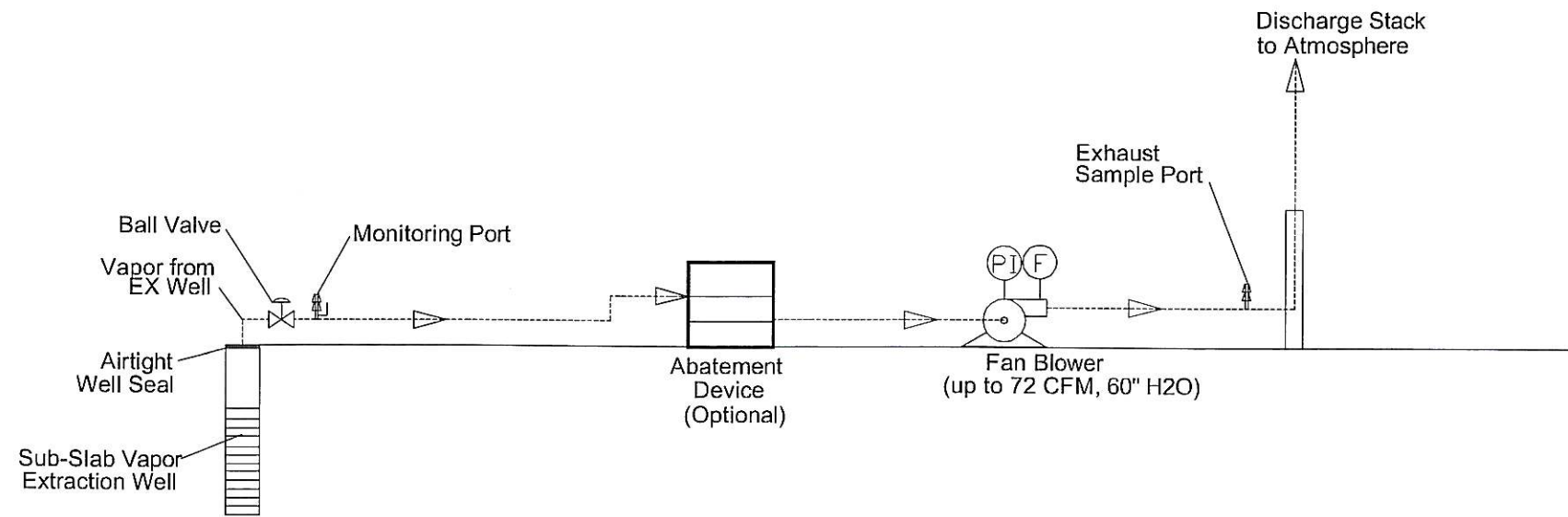
**SUB-SLAB DEPRESSURIZATION SYSTEM LAYOUT**

Searway Property  
649 Pacific Avenue  
Alameda, California

PROJECT:  
103.005.005

FIGURE:  
9

# SUB-SLAB DEPRESSURIZATION SYSTEM PROCESS AND INSTRUMENTATION DIAGRAM



### LEGEND

- Process Flow Direction
- Pressure Indicator
- Flow Indicator

REF. 103\_002\SS DEPRESS PID.DWG

PREPARED BY  
**TRINITY**  
*source group, inc.*  
 500 Chestnut Street, Suite 225  
 Santa Cruz, CA 95060  
 Tel: (831) 426-5600 Fax: (831) 426-5602

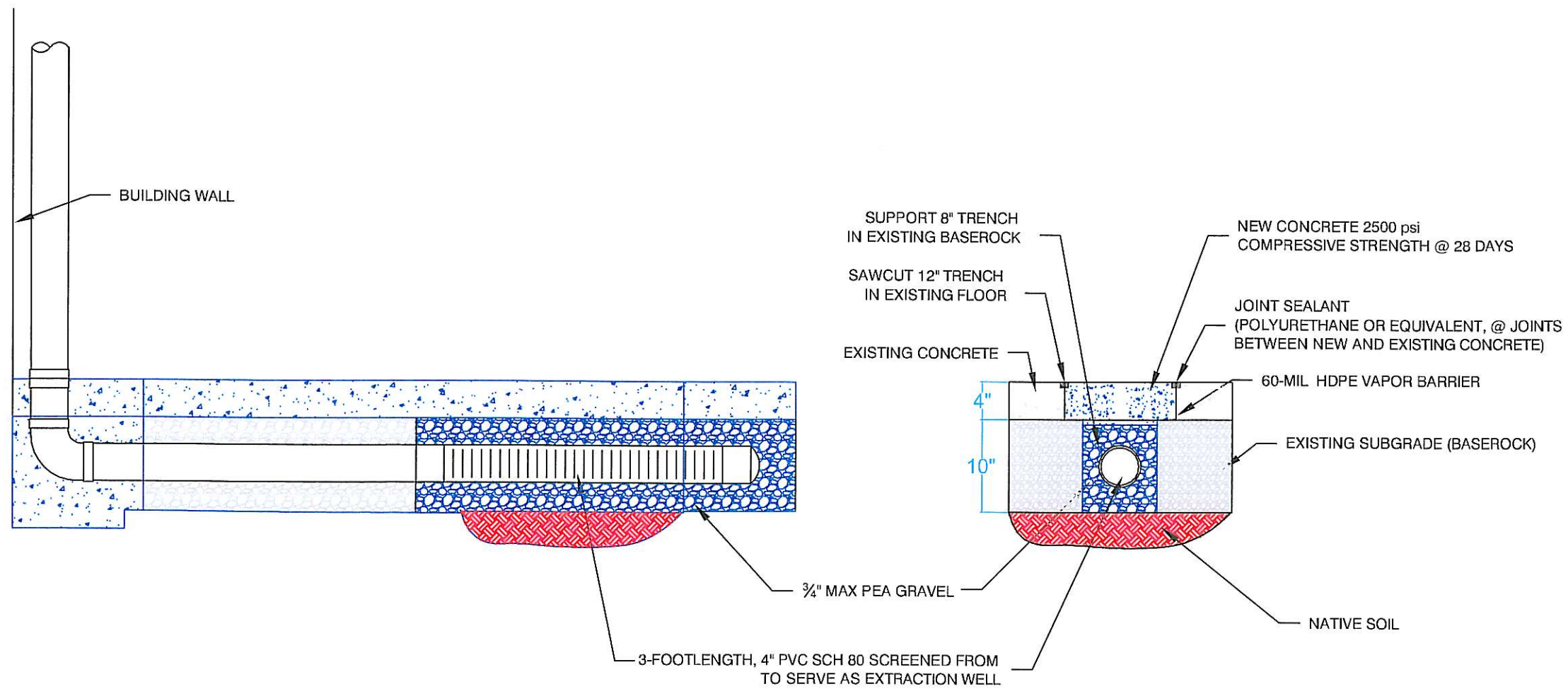
### SUB-SLAB DEPRESSURIZATION SYSTEM - PROCESS AND INSTRUMENTATION DIAGRAM

Searway Property  
 649 Pacific Avenue  
 Alameda, California

PROJECT:  
103.005.005

FIGURE:

10



PIPE - WELL LATERAL DETAIL (TYPICAL)

TRENCH DETAIL (TYPICAL)

TYPICAL EXTRACTION WELL DETAIL  
BELOW GROUND COMPLETION

REF. 103\_002\EXWELL DTL.DWG

PREPARED BY  
  
**TRINITY**  
*source group, inc.*  
 500 Chestnut Street, Suite 225  
 Santa Cruz, CA. 95060  
 Tel: (831) 426-5600 Fax: (831) 426-5602

**SUB-SLAB DEPRESSURIZATION SYSTEM - EXTRACTION WELL DETAIL**

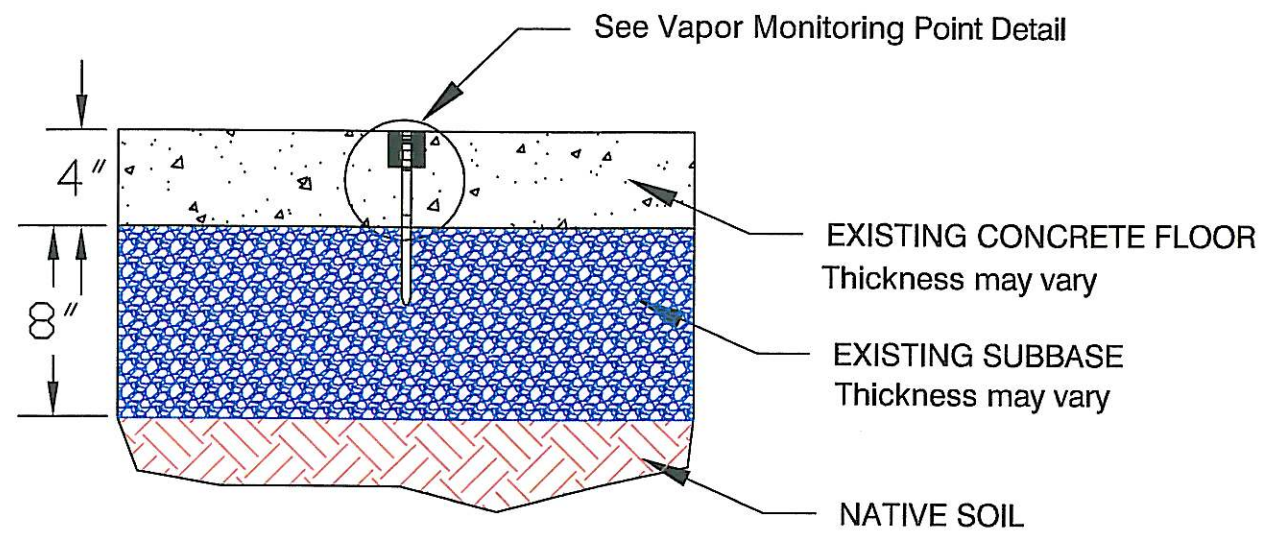
Searway Property  
 649 Pacific Avenue  
 Alameda, California

PROJECT:  
 103.005.005

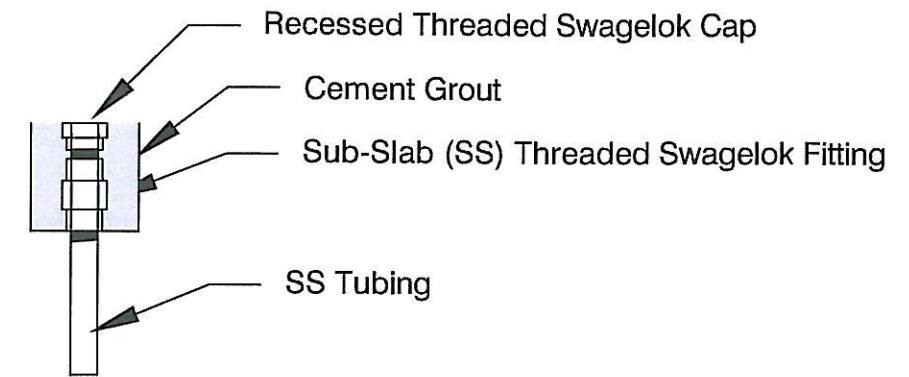
FIGURE:

11





EXISTING FLOOR AND SUB-SLAB  
CONSTRUCTION (TYPICAL)



VAPOR MONITORING POINT DETAIL  
Scale 1" = 2"

REF. 103\_002\VPR MON PT.DWG

PREPARED BY  
  
 TRINITY  
 source group, inc.  
 500 Chestnut Street, Suite 225  
 Santa Cruz, CA, 95060  
 Tel: (831) 426-5600 Fax: (831) 426-5602

**SUB-SLAB VAPOR MONITORING POINT DETAIL**

Searway Property  
 649 Pacific Avenue  
 Alameda, California

PROJECT:  
 103.005.005

FIGURE:

12

**ATTACHMENT A**

**ACHCSA LETTER DATED  
SEPTEMBER 21, 2007**



ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



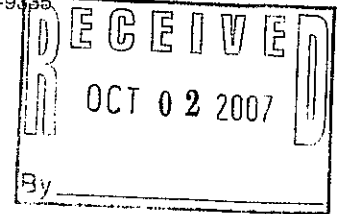
YOU (9)

September 21, 2007

Mr. Donald Lindsey  
Timber Del Properties, LLC  
2424 Central Avenue  
Alameda, CA 94501

Mr. Carl Searway  
3032 Dakota Street  
Oakland, Ca 94602

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



Subject: SLIC Case No. RO0002584 and Geotracker Global ID SL0600150413, Searway Property, 649 Pacific Avenue, Alameda, CA 94501

Dear Mr. Lindsey and Mr. Searway:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the recently submitted document entitled, "Phase III Sub-Slab Vapor Investigation Report," dated September 20, 2007 and prepared on your behalf by Trinity Source Group, Inc. The report presents the results from installation and sampling of five additional soil vapor probes (VS-10 through VS-14) inside the building at 649 and 651 Pacific Avenue, and 1713 Webster Street. Volatile organic compounds (VOCs) including carbon tetrachloride and tetrachloroethene were detected in soil vapor at concentrations exceeding screening criteria in one of the additional sampling locations inside the building (VS-11). However, 24,000 micrograms per cubic meter of isopropyl alcohol was detected in the sample from VS-13 indicating a possible leak during sampling. Therefore, the results for probe VS-13 may be biased low. Re-sampling of probe VS-13 is required.

We request that you address the following technical comments, perform the proposed work, and send us the reports described below.

**TECHNICAL COMMENTS**

1. **Re-sampling of Probes VS-11 and VS-13.** We concur with the recommendation to re-sample probes VS-11 and VS-13 to verify results from these sampling locations. Please present these results in the Plan for Sub-Slab Depressurization System requested below.
2. **Concrete Slab Entry Points.** We concur with recommendation to inspect the building foundation for potential VOC vapor entry points. All possible entry points are to be monitored with a part per billion-range photoionization detector and then sealed. Please present the results in the Plan for Sub-Slab Depressurization System requested below.

3. **Diagnostic Testing of Sub-Slab Material.** Diagnostic testing is to be completed in order to provide data for design of a sub-slab depressurization system. Please present the results of the diagnostic testing in the Plans for Sub-Slab Depressurization System requested below.
4. **Plans for Sub-Slab Depressurization System.** After re-sampling of probes VS-11 and VS-13, sealing off possible slab entry points, and diagnostic testing is completed, please submit plans for the installation and testing of a sub-slab depressurization system. Plans for the Sub-Slab Depressurization System are to be submitted **by November 30, 2007.**

### TECHNICAL REPORT REQUEST

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

- **November 30, 2007** - Plans for Sub-Slab Depressurization System
- **February 15, 2008** – Semiannual Monitoring Report for Third to Fourth Quarter 2007

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

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. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

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. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for 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 monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.swrcb.ca.gov/ust/cleanup/electronic\\_reporting](http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting)).

### 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

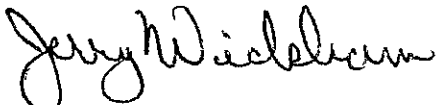
The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For 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.

### 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.

If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham  
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: David Reinsma, Trinity Source Group, 910 Mesa Grande Road, Aptos, CA 95003

Donna Drogos, ACEH  
Jerry Wickham, ACEH  
File

## **ATTACHMENT B**

# **SUB-SLAB VAPOR PROBE SAMPLING PROTOCOL AND FIELD DATA SHEETS**

## ATTACHMENT B

### SUB-SLAB VAPOR PROBE SAMPLING PROTOCOL

---

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

All sub-slab soil gas probes were installed to float in the concrete slab. The installation procedure was consistent with that described by USEPA<sup>1</sup>. Sampling and analysis procedure generally followed the guidelines contained in San Mateo County's "Using a Geoprobe to Collect Subsurface Vapor Samples for Human Health Risk Evaluation" (GPP Guidelines, Draft GPP Staff Guidance updated 3/9/06)<sup>2</sup>, San Mateo County's Draft "Subsurface Vapor Sampling for Human Health Risk Evaluation" (Revised 11/14/06) and the California Department of Toxic Substances Control (DTSC) Advisory for Active Soil Gas Investigations dated January 28, 2003<sup>3</sup>.

The probe installation and sub-slab vapor sample collection procedures are summarized below:

Previous investigation indicated that the concrete slab is 4 to 5 inches thick. Therefore, to install a sub-slab probe, a one-inch diameter hole in the concrete slab was drilled to a depth of approximately 2 to 3 inches using a rotary drill. Prior to penetrating the concrete slab, the drill hole was vacuumed out to remove cuttings. The drill bit was then changed to 5/16-inch, and the hole was advanced approximately an additional 2 to 3 inches through the slab and into the underlying sub-slab material. The sub-slab soil gas probe was assembled using a 2-inch long by 1/4-inch inner-diameter (ID) stainless steel or copper tube attached to a stainless steel threaded fitting and Swagelok cap or plug. This assembly was placed into the drilled hole, and grouted

---

<sup>1</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.

<sup>2</sup> San Mateo County (2006), Using a Geoprobe to Collect Subsurface Vapor Samples for Human Health Risk Evaluation (GPP Guidelines).

<sup>3</sup> California Environmental Protection Agency, Department of Toxic Substances Control (2003), Advisory – Active Soil Gas Investigations.

into place using non-shrink, quick-setting cement. The cement installation was recessed so that the plug was accessible. The top of the plug was set flush with the top of the concrete slab.

The slab venting probes were allowed to equilibrate for a minimum of one week prior to sample collection.

Mobilization for sub-slab sampling was not conducted if measurable precipitation or site irrigation near the sampling locations occurred in the previous 5 days.

**Sampling Set-up:** Prior to sampling, the plug on the sub-slab vapor probe was removed and quickly replaced with a closed Swagelok valve. A tee fitting was connected to two one-liter Summa canisters with a pressure gauge installed on top of each of these fittings. Trinity used one-liter purge and sample canisters for this application, in order to collect a sub-slab sample that was most representative of the local area penetrated.

The two Summa canisters were connected by less than 1 foot of copper tubing and a third tee fitting. The vacuum reading on each canister was confirmed and recorded before proceeding. The initial vacuum reading was between 26 to 35 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 was installed. On the downhole side of the particulate filter, a vapor-tight valve was installed to connect the sampling equipment with the sub-slab probe tube.

**Vacuum Leak Testing:** A vacuum test was 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.

**Purging:** If the vacuum test was successful, purging followed. The purge canister valve and the valve on the downhole side of the particulate filter was opened and the time was recorded. The purge canister valve was closed after three volumes of air were purged from the sample apparatus and drilled probe hole. The purge volume was calculated based on the internal volume of the drilled hole, tubing and probe apparatus. The amount of air purged was measured based on the time that the flow-control orifice was opened, with a flow rate of 100-ml/minute, and based on a discernable vacuum drop on the purge canister pressure gauge. The time at which purging was terminated was recorded on field data sheets included in this Attachment.

**Soil Gas Sampling:** After a successful vacuum test, purging began. The purge canister valve and the valve on the downhole side of the particulate filter were opened and the time was recorded on field data sheets. The purge canister valve was closed after three volumes of air were purged from the sample apparatus and vapor probe. The purge volume was calculated based on the volume of the probe tip and the internal volume of the tubing. The amount of air purged was determined by the incremental drop in vacuum readings on the purge Summa canister. The time at which purging terminated was recorded.

Following purging, the sample Summa canister valve was opened to begin sample collection. The time at which sample collection began was recorded. Once the sample Summa canister pressure gauge indicated approximately 5 inches of mercury, the sample canister valve was closed and the time recorded. The tee fitting on the sample canister was replaced with a laboratory supplied brass plug. The sample canister was 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 were stored in a container that blocks sunlight to the opaque canisters. None of the Summa canisters were subject to changes in pressure and temperature. The sample canisters were delivered to the analytical laboratory via ground transportation under chain-of-custody documentation.

The flow-control orifice was maintained at 100 to 200 ml/min, and was kept open until the sample Summa canister pressure gauge indicated approximately 5 inches Hg. Once 5 inches of Hg was achieved, the sample canister valve was closed and the time recorded. The tee fitting on the sample canister was replaced with a laboratory supplied brass plug.

During sampling, a leak testing procedure was performed by placing a shroud over the sampling assembly, and maintaining an isopropyl alcohol-enriched atmosphere under the shroud. The shroud was emplaced after purging the vapor probe, but before the sub-slab vapor sample was collected. Isopropyl alcohol-saturated wipes were placed under the shroud. A photoionization detector (PID) was used to monitor the atmosphere beneath the shroud during sampling. Shroud PID field readings for isopropyl alcohol for each probe location are noted on the field data sheets presented in this Attachment.

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



Project No.: 103 - 005.003  
 Facility Name: Kelly Moore Paint Store-Searway Property  
 Address: 649 Pacific Ave Alameda  
 Staff: Dan Birch

Purge Test Location: VS-13  
 Purge Method: Summa Canister 1000 ml  
 Leak Test Compound (DL of 10 µg/L): Isopropanol  
 Flow Control Orifice (ml/min): 100

10/18/07 THUR

Date: \_\_\_\_\_ Tubing Size (In): 1/4" ID; 3/8" OD Bore Hole Dia. (in): 3/8" OD

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 (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)	Probe Depth (Feet)
0.085	0.007	0.5	6	2.232	0.4	0.160	0.5	4.119	3	16.387	19.053	0.019	175/100	0.11/0.19	0.5

**Notes:**

Purge volume for tubing can be calculated as follows:

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

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

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

Total purge volume can be calculated as follows:

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

Estimated purge time can be calculated as follows:

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

Sub slab Probe Number	Time Start Purging (24 hr)	Time Stop Purging (24 hr)	Initial Vacuum Gauge Reading (Hg")	Cum- ulative Total Volume Purged (ml)	Time Start Sampling (24 hr)	Time Stop Sampling (24 hr)	Final Vacuum Gauge Reading (Hg")	Iso- propanol/ concentration in Shroud (PPMV)	Vacuum Train Leak Check (pass/fail)	Vacuum Train Test Start/Stop Time	Shroud Iso- Propanol Tedlar Bag Sample/Time	Probe Install Date	Probe Install Time	Purge Volumes	Probe Depth (Feet)
VS-13	1336 -20	1339 -15	-30	1340 -30 170	1340 -30	1400	-5	40.2	1321	1311	NONE	9/3/2006		3	0.5

Notes: Cover w/ shroud added ~~front~~ butonite seal on slab purge -20 to -15. Add alcohol pad @ 1340 to shroud. 1342 - 16.6 PPMV; 1344 - 20.2 PPMV, 1346 - 27.1, 1349 - 31.2, 1351 - 36.6, 1353 - 38.1, 1357 - 40.2



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



Project No.: 103 005.003  
 Facility Name: Kelly Moore Paint Store-Searway Property  
 Address: 649 Pacific Ave Alameda  
 Staff: Dan Birch  
 Date: 10/17/07

Purge Test Location: VS-11  
 Purge Method: Summa Canister 1000 ml  
 Leak Test Compound (DL of 10 µg/L): Isopropanol  
 Flow Control Orifice (ml/min): 175  
 Tubing Size (in): 1/4" ID; 3/8" OD  
 Bore Hole Dia. (in): 3/8" OD

10/17/07

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 (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)	Probe Depth (Feet)
0.085	0.007	0.5	6	2.232	0.4	0.160	0.5	4.119	3	16.387	19.053	0.019	175	0.11	0.5

**Notes:**

Purge volume for tubing can be calculated as follows:

(a)  $3.141593(\pi) \cdot \text{tubing radius } r^2 \cdot \text{Inches of tubing} \cdot 16.3870641(\text{conversion of cubic inches to milliliters})$

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

(b)  $3.141593(\pi) \cdot \text{bore hole } r^2 \cdot \text{Inches of bore hole} \cdot 16.3870641(\text{conversion of cubic inches to milliliters})$

Total purge volume can be calculated as follows:

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

Estimated purge time can be calculated as follows:

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

Sub slab Probe Number	Time Start Purging (24 hr)	Time Stop Purging (24 hr)	Initial Vacuum Gauge Reading (Hg")	Cum- ulative Total Volume Purged (ml)	Time Start Sampling (24 hr)	Time Stop Sampling (24 hr)	Final Vacuum Gauge Reading (Hg")	Iso- propanol concentration in Shroud (PPMV)	Vacuum Train Leak Check (pass/fail)	Vacuum Train Test Start/Stop Time	Shroud Iso-Propanol Tedlar Bag Sample/Time	Probe Install Date	Probe Install Time	Purge Volumes	Probe Depth (Feet)
VS-11	2150	2153	-30	170	2153	2208	-5	42.1 PPMV	PASS	2140 2150	NONE	9/3/2006	1045	3	0.5

Notes: use Bentonite to seal fittings, add alcohol pad @ 2154; Measure ppmv of alcohol

2155 - 12.6 ppmv, 2159 - 26.9 ppmv, 2202 - 31.7, 2205 - 42.0 ppmv,

2208 - 42.1 ppmv. Stop Sampling @ 2208.

## **ATTACHMENT C**

# **CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOUCMENTATION**

## **Air Toxics Ltd. Introduces the Electronic Report**

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020  
Hours 8:00 A.M to 6:00 P.M. Pacific**



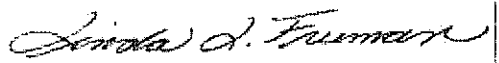
AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0710535A**

Work Order Summary

<b>CLIENT:</b>	Mr. Dan Birch Trinity Source Group 500 Chestnut St. Suite 225 Santa Cruz, CA 95060	<b>BILL TO:</b>	Mr. Dan Birch Trinity Source Group 500 Chestnut St. Suite 225 Santa Cruz, CA 95060
<b>PHONE:</b>	831-426-5600	<b>P.O. #</b>	103.005.003
<b>FAX:</b>		<b>PROJECT #</b>	649 Pacific Ave Searway Property
<b>DATE RECEIVED:</b>	10/22/2007	<b>CONTACT:</b>	Kyle Vagadori
<b>DATE COMPLETED:</b>	11/01/2007		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC/PRES.</u>
01A	VS-11	Modified TO-15	3.5 "Hg
02A	VS-13	Modified TO-15	3.5 "Hg
03A	Lab Blank	Modified TO-15	NA
04A	CCV	Modified TO-15	NA
05A	LCS	Modified TO-15	NA

CERTIFIED BY:   
 Laboratory Director

DATE: 11/01/07

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
 NY NELAP - 11291, UT NELAP - 9166389892  
 Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
 Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08  
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards  
 This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.  
 180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**Modified TO-15**  
**Trinity Source Group**  
**Workorder# 0710535A**



Two 1 Liter Summa Canister samples were received on October 22, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Daily CCV	+/- 30% Difference	<= 30% Difference with two allowed out up to <=40%.; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

There were no analytical discrepancies.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VS-11

Lab ID#: 0710535A-01A

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	0.0073	0.031	14	58
Acetone	0.0073	0.016	17	39
Chloroform	0.0018	0.0064	8.9	32
Carbon Tetrachloride	0.0018	0.15	12	970
Tetrachloroethene	0.0018	0.53	12	3600

Client Sample ID: VS-13

Lab ID#: 0710535A-02A

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 11	0.0011	0.0098	6.4	55
Acetone	0.0046	0.020	11	47
2-Butanone (Methyl Ethyl Ketone)	0.0011	0.0022	3.4	6.4
Tetrahydrofuran	0.0011	0.0014	3.4	4.1
Tetrachloroethene	0.0011	0.0039	7.8	26



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: VS-11

Lab ID#: 0710535A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7103109	Date of Collection:	10/17/07
Dil. Factor:	3.66	Date of Analysis:	10/31/07 02:35 PM

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.0018	Not Detected	9.0	Not Detected
Freon 114	0.0018	Not Detected	13	Not Detected
Chloromethane	0.0073	Not Detected	15	Not Detected
Vinyl Chloride	0.0018	Not Detected	4.7	Not Detected
1,3-Butadiene	0.0018	Not Detected	4.0	Not Detected
Bromomethane	0.0018	Not Detected	7.1	Not Detected
Chloroethane	0.0018	Not Detected	4.8	Not Detected
Freon 11	0.0018	Not Detected	10	Not Detected
Ethanol	0.0073	0.031	14	58
Freon 113	0.0018	Not Detected	14	Not Detected
1,1-Dichloroethene	0.0018	Not Detected	7.2	Not Detected
Acetone	0.0073	0.016	17	39
2-Propanol	0.0073	Not Detected	18	Not Detected
Carbon Disulfide	0.0018	Not Detected	5.7	Not Detected
3-Chloropropene	0.0073	Not Detected	23	Not Detected
Methylene Chloride	0.0018	Not Detected	6.4	Not Detected
Methyl tert-butyl ether	0.0018	Not Detected	6.6	Not Detected
trans-1,2-Dichloroethene	0.0018	Not Detected	7.2	Not Detected
Hexane	0.0018	Not Detected	6.4	Not Detected
1,1-Dichloroethane	0.0018	Not Detected	7.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.0018	Not Detected	5.4	Not Detected
cis-1,2-Dichloroethene	0.0018	Not Detected	7.2	Not Detected
Tetrahydrofuran	0.0018	Not Detected	5.4	Not Detected
Chloroform	0.0018	0.0064	8.9	32
1,1,1-Trichloroethane	0.0018	Not Detected	10	Not Detected
Cyclohexane	0.0018	Not Detected	6.3	Not Detected
Carbon Tetrachloride	0.0018	0.15	12	970
2,2,4-Trimethylpentane	0.0018	Not Detected	8.5	Not Detected
Benzene	0.0018	Not Detected	5.8	Not Detected
1,2-Dichloroethane	0.0018	Not Detected	7.4	Not Detected
Heptane	0.0018	Not Detected	7.5	Not Detected
Trichloroethene	0.0018	Not Detected	9.8	Not Detected
1,2-Dichloropropane	0.0018	Not Detected	8.4	Not Detected
1,4-Dioxane	0.0073	Not Detected	26	Not Detected
Bromodichloromethane	0.0018	Not Detected	12	Not Detected
cis-1,3-Dichloropropene	0.0018	Not Detected	8.3	Not Detected
4-Methyl-2-pentanone	0.0018	Not Detected	7.5	Not Detected
Toluene	0.0018	Not Detected	6.9	Not Detected
trans-1,3-Dichloropropene	0.0018	Not Detected	8.3	Not Detected





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: VS-11

Lab ID#: 0710535A-01A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>7103109</b>	<b>Date of Collection:</b>	<b>10/17/07</b>
<b>Dil. Factor:</b>	<b>3.66</b>	<b>Date of Analysis:</b>	<b>10/31/07 02:35 PM</b>

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	0.0018	Not Detected	10	Not Detected
Tetrachloroethene	0.0018	0.53	12	3600
2-Hexanone	0.0073	Not Detected	30	Not Detected
Dibromochloromethane	0.0018	Not Detected	16	Not Detected
1,2-Dibromoethane (EDB)	0.0018	Not Detected	14	Not Detected
Chlorobenzene	0.0018	Not Detected	8.4	Not Detected
Ethyl Benzene	0.0018	Not Detected	7.9	Not Detected
m,p-Xylene	0.0018	Not Detected	7.9	Not Detected
o-Xylene	0.0018	Not Detected	7.9	Not Detected
Styrene	0.0018	Not Detected	7.8	Not Detected
Bromoform	0.0018	Not Detected	19	Not Detected
Cumene	0.0018	Not Detected	9.0	Not Detected
1,1,1,2-Tetrachloroethane	0.0018	Not Detected	12	Not Detected
Propylbenzene	0.0018	Not Detected	9.0	Not Detected
4-Ethyltoluene	0.0018	Not Detected	9.0	Not Detected
1,3,5-Trimethylbenzene	0.0018	Not Detected	9.0	Not Detected
1,2,4-Trimethylbenzene	0.0018	Not Detected	9.0	Not Detected
1,3-Dichlorobenzene	0.0018	Not Detected	11	Not Detected
1,4-Dichlorobenzene	0.0018	Not Detected	11	Not Detected
alpha-Chlorotoluene	0.0018	Not Detected	9.5	Not Detected
1,2-Dichlorobenzene	0.0018	Not Detected	11	Not Detected
1,2,4-Trichlorobenzene	0.0073	Not Detected	54	Not Detected
Hexachlorobutadiene	0.0073	Not Detected	78	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: VS-13

Lab ID#: 0710535A-02A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>7103110</b>	<b>Date of Collection:</b>	<b>10/18/07</b>
<b>Dil. Factor:</b>	<b>2.29</b>	<b>Date of Analysis:</b>	<b>10/31/07 03:34 PM</b>

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.0011	Not Detected	5.7	Not Detected
Freon 114	0.0011	Not Detected	8.0	Not Detected
Chloromethane	0.0046	Not Detected	9.4	Not Detected
Vinyl Chloride	0.0011	Not Detected	2.9	Not Detected
1,3-Butadiene	0.0011	Not Detected	2.5	Not Detected
Bromomethane	0.0011	Not Detected	4.4	Not Detected
Chloroethane	0.0011	Not Detected	3.0	Not Detected
Freon 11	0.0011	0.0098	6.4	55
Ethanol	0.0046	Not Detected	8.6	Not Detected
Freon 113	0.0011	Not Detected	8.8	Not Detected
1,1-Dichloroethene	0.0011	Not Detected	4.5	Not Detected
Acetone	0.0046	0.020	11	47
2-Propanol	0.0046	Not Detected	11	Not Detected
Carbon Disulfide	0.0011	Not Detected	3.6	Not Detected
3-Chloropropene	0.0046	Not Detected	14	Not Detected
Methylene Chloride	0.0011	Not Detected	4.0	Not Detected
Methyl tert-butyl ether	0.0011	Not Detected	4.1	Not Detected
trans-1,2-Dichloroethene	0.0011	Not Detected	4.5	Not Detected
Hexane	0.0011	Not Detected	4.0	Not Detected
1,1-Dichloroethane	0.0011	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.0011	0.0022	3.4	6.4
cis-1,2-Dichloroethene	0.0011	Not Detected	4.5	Not Detected
Tetrahydrofuran	0.0011	0.0014	3.4	4.1
Chloroform	0.0011	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	0.0011	Not Detected	6.2	Not Detected
Cyclohexane	0.0011	Not Detected	3.9	Not Detected
Carbon Tetrachloride	0.0011	Not Detected	7.2	Not Detected
2,2,4-Trimethylpentane	0.0011	Not Detected	5.3	Not Detected
Benzene	0.0011	Not Detected	3.6	Not Detected
1,2-Dichloroethane	0.0011	Not Detected	4.6	Not Detected
Heptane	0.0011	Not Detected	4.7	Not Detected
Trichloroethene	0.0011	Not Detected	6.2	Not Detected
1,2-Dichloropropane	0.0011	Not Detected	5.3	Not Detected
1,4-Dioxane	0.0046	Not Detected	16	Not Detected
Bromodichloromethane	0.0011	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	0.0011	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	0.0011	Not Detected	4.7	Not Detected
Toluene	0.0011	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	0.0011	Not Detected	5.2	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: VS-13

Lab ID#: 0710535A-02A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>7103110</b>	<b>Date of Collection:</b>	<b>10/18/07</b>
<b>DIL Factor:</b>	<b>2.29</b>	<b>Date of Analysis:</b>	<b>10/31/07 03:34 PM</b>

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	0.0011	Not Detected	6.2	Not Detected
Tetrachloroethene	0.0011	0.0039	7.8	26
2-Hexanone	0.0046	Not Detected	19	Not Detected
Dibromochloromethane	0.0011	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	0.0011	Not Detected	8.8	Not Detected
Chlorobenzene	0.0011	Not Detected	5.3	Not Detected
Ethyl Benzene	0.0011	Not Detected	5.0	Not Detected
m,p-Xylene	0.0011	Not Detected	5.0	Not Detected
o-Xylene	0.0011	Not Detected	5.0	Not Detected
Styrene	0.0011	Not Detected	4.9	Not Detected
Bromoform	0.0011	Not Detected	12	Not Detected
Cumene	0.0011	Not Detected	5.6	Not Detected
1,1,1,2-Tetrachloroethane	0.0011	Not Detected	7.9	Not Detected
Propylbenzene	0.0011	Not Detected	5.6	Not Detected
4-Ethyltoluene	0.0011	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	0.0011	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	0.0011	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	0.0011	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	0.0011	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	0.0011	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	0.0011	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	0.0046	Not Detected	34	Not Detected
Hexachlorobutadiene	0.0046	Not Detected	49	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	89	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	105	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0710535A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7103105	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/31/07 11:28 AM

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.00050	Not Detected	2.5	Not Detected
Freon 114	0.00050	Not Detected	3.5	Not Detected
Chloromethane	0.0020	Not Detected	4.1	Not Detected
Vinyl Chloride	0.00050	Not Detected	1.3	Not Detected
1,3-Butadiene	0.00050	Not Detected	1.1	Not Detected
Bromomethane	0.00050	Not Detected	1.9	Not Detected
Chloroethane	0.00050	Not Detected	1.3	Not Detected
Freon 11	0.00050	Not Detected	2.8	Not Detected
Ethanol	0.0020	Not Detected	3.8	Not Detected
Freon 113	0.00050	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.00050	Not Detected	2.0	Not Detected
Acetone	0.0020	Not Detected	4.8	Not Detected
2-Propanol	0.0020	Not Detected	4.9	Not Detected
Carbon Disulfide	0.00050	Not Detected	1.6	Not Detected
3-Chloropropene	0.0020	Not Detected	6.3	Not Detected
Methylene Chloride	0.00050	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.00050	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.00050	Not Detected	2.0	Not Detected
Hexane	0.00050	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.00050	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.00050	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.00050	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.00050	Not Detected	1.5	Not Detected
Chloroform	0.00050	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.00050	Not Detected	2.7	Not Detected
Cyclohexane	0.00050	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.00050	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.00050	Not Detected	2.3	Not Detected
Benzene	0.00050	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.00050	Not Detected	2.0	Not Detected
Heptane	0.00050	Not Detected	2.0	Not Detected
Trichloroethene	0.00050	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.00050	Not Detected	2.3	Not Detected
1,4-Dioxane	0.0020	Not Detected	7.2	Not Detected
Bromodichloromethane	0.00050	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.00050	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.00050	Not Detected	2.0	Not Detected
Toluene	0.00050	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.00050	Not Detected	2.3	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0710535A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7103105	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/31/07 11:28 AM

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	0.00050	Not Detected	2.7	Not Detected
Tetrachloroethene	0.00050	Not Detected	3.4	Not Detected
2-Hexanone	0.0020	Not Detected	8.2	Not Detected
Dibromochloromethane	0.00050	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.00050	Not Detected	3.8	Not Detected
Chlorobenzene	0.00050	Not Detected	2.3	Not Detected
Ethyl Benzene	0.00050	Not Detected	2.2	Not Detected
m,p-Xylene	0.00050	Not Detected	2.2	Not Detected
o-Xylene	0.00050	Not Detected	2.2	Not Detected
Styrene	0.00050	Not Detected	2.1	Not Detected
Bromoform	0.00050	Not Detected	5.2	Not Detected
Cumene	0.00050	Not Detected	2.4	Not Detected
1,1,1,2-Tetrachloroethane	0.00050	Not Detected	3.4	Not Detected
Propylbenzene	0.00050	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.00050	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.00050	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.00050	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.00050	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.00050	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.00050	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.00050	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	0.0020	Not Detected	15	Not Detected
Hexachlorobutadiene	0.0020	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	102	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0710535A-04A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>7103102</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/31/07 09:03 AM

<b>Compound</b>	<b>%Recovery</b>
Freon 12	101
Freon 114	104
Chloromethane	97
Vinyl Chloride	95
1,3-Butadiene	101
Bromomethane	93
Chloroethane	96
Freon 11	101
Ethanol	99
Freon 113	101
1,1-Dichloroethene	99
Acetone	91
2-Propanol	104
Carbon Disulfide	88
3-Chloropropene	85
Methylene Chloride	94
Methyl tert-butyl ether	85
trans-1,2-Dichloroethene	88
Hexane	89
1,1-Dichloroethane	93
2-Butanone (Methyl Ethyl Ketone)	87
cis-1,2-Dichloroethene	98
Tetrahydrofuran	106
Chloroform	102
1,1,1-Trichloroethane	110
Cyclohexane	93
Carbon Tetrachloride	118
2,2,4-Trimethylpentane	102
Benzene	94
1,2-Dichloroethane	112
Heptane	94
Trichloroethene	104
1,2-Dichloropropane	99
1,4-Dioxane	96
Bromodichloromethane	111
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	111
Toluene	101
trans-1,3-Dichloropropene	102



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0710535A-04A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	7103102	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/31/07 09:03 AM

Compound	%Recovery
1,1,2-Trichloroethane	101
Tetrachloroethene	113
2-Hexanone	100
Dibromochloromethane	119
1,2-Dibromoethane (EDB)	109
Chlorobenzene	100
Ethyl Benzene	102
m,p-Xylene	102
o-Xylene	102
Styrene	114
Bromoform	128
Cumene	109
1,1,2,2-Tetrachloroethane	99
Propylbenzene	104
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	105
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	99
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	103
Hexachlorobutadiene	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	110	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0710535A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7103104	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/31/07 10:30 AM

Compound	%Recovery
Freon 12	93
Freon 114	100
Chloromethane	93
Vinyl Chloride	91
1,3-Butadiene	95
Bromomethane	87
Chloroethane	91
Freon 11	99
Ethanol	107
Freon 113	112
1,1-Dichloroethene	109
Acetone	96
2-Propanol	106
Carbon Disulfide	88
3-Chloropropene	90
Methylene Chloride	104
Methyl tert-butyl ether	99
trans-1,2-Dichloroethene	97
Hexane	99
1,1-Dichloroethane	102
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	104
Tetrahydrofuran	110
Chloroform	109
1,1,1-Trichloroethane	112
Cyclohexane	104
Carbon Tetrachloride	117
2,2,4-Trimethylpentane	108
Benzene	104
1,2-Dichloroethane	108
Heptane	105
Trichloroethene	109
1,2-Dichloropropane	106
1,4-Dioxane	105
Bromodichloromethane	111
cis-1,3-Dichloropropene	107
4-Methyl-2-pentanone	116
Toluene	112
trans-1,3-Dichloropropene	110





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0710535A-05A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>7103104</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/31/07 10:30 AM

Compound	%Recovery
1,1,2-Trichloroethane	109
Tetrachloroethene	120
2-Hexanone	107
Dibromochloromethane	122
1,2-Dibromoethane (EDB)	112
Chlorobenzene	110
Ethyl Benzene	109
m,p-Xylene	109
o-Xylene	109
Styrene	116
Bromoform	128
Cumene	116
1,1,2,2-Tetrachloroethane	102
Propylbenzene	109
4-Ethyltoluene	106
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	109
1,4-Dichlorobenzene	107
alpha-Chlorotoluene	110
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	85
Hexachlorobutadiene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	108	70-130



**CHAIN-OF-CUSTODY RECORD**

**Sample Transportation Notice**

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, state, federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.C.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B  
FOLSOM, CA 95630-4719  
(916) 985-1000 FAX (916) 985-1020

Page \_\_\_ of \_\_\_

Project Manager Dave Rensma  
 Collected by: (Print and Sign) DAN BIRCH [Signature]  
 Company TRINITY SOURCE GROUP INC email dave@tsgcorp.net  
 Address 500 Chestnut St. City Santa Cruz State CA Zip 95060  
 Phone 831-426-5600 Fax 426-5602

<b>Project Info:</b>		<b>Turn Around Time:</b>	<i>Lab Use Only:</i>
P.O. # <u>103-005-003</u>	Project # <u>649 Pacific Ave</u>	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	Pressurized by: <u>VPR</u>
Project Name <u>Seaway Property</u>			Date: <u>10/24/07</u>
			Pressurization Gas: <u>(N<sub>2</sub>) He</u>

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (gwt)
01A	VS-11	5169	10/17/07	<del>1400</del>	TO-15, T-03 for TPHs	-30	-5	3.54g	15.95g
02A	VS-13	12360	10/18/07	1400	TO-15, TO-3 for TPHs	-30	-5	3.54g	15.95g

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>10/19/07 1000</u>	Received by: (signature) _____ Date/Time _____	Notes: <u>Shipped FedEx</u>
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) <u>[Signature]</u> Date/Time <u>10/26/07 845</u>	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>CA Overnight</u>	<u>B10192551581</u>	<u>NA</u>	<u>Good</u>	Yes No <u>(None)</u>	<u>0710535</u>



November 06, 2007

David Reinsma  
Trinity Source Group  
500 Chestnut St, Suite 225  
Santa Cruz, CA

TEL: (831) 685-1217  
FAX (831) 685-1219

RE: 103.005.004

Order No.: 0710213

Dear David Reinsma:

Torrent Laboratory, Inc. received 5 samples on 10/31/2007 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 tests results, please feel free to contact the Project Management Team at (408)263-5258;ext: 204.

Sincerely,

  
Laboratory Director

11/6/07  
Date



**Torrent Laboratory, Inc.**

**Date:** 06-Nov-07

**CLIENT:** Trinity Source Group  
**Project:** 103.005.004  
**Lab Order:** 0710213

**CASE NARRATIVE**

---

Analytical Comment for EPA TO-15A, MBLK, Note: Although Methylene chloride was found in the preparation blank, all associated samples were ND for Methylene Chloride to below the MDL. No corrective action is required.



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Road \* Milpitas, CA \* Phone: (408) 2635258 \* Fax: (408) 263-8293  
Visit us at www.torrentlab.com email: analysis@torrentlab.com

Report Prepared For: David Reinsma  
Trinity Source Group

Date Received: 10/31/2007  
Date Reported: 11/6/2007

## Summary Report

DPT-2-STCP1		Toxic Organics in Air by EPA TO-15			Lab ID: 0710213-001A	
<u>Parameter</u>	<u>Preped</u>	<u>Analyzed</u>	<u>Result</u>	<u>RL</u>	<u>Unit</u>	
1,2,4-Trimethylbenzene	11/1/2007	11/1/2007	10	4.9	µg/m <sup>3</sup>	
4-Ethyl Toluene	11/1/2007	11/1/2007	9.8	4.9	µg/m <sup>3</sup>	
Acetone	11/1/2007	11/1/2007	83	19	µg/m <sup>3</sup>	
Carbon Disulfide	11/1/2007	11/1/2007	8.8	3.1	µg/m <sup>3</sup>	
Carbon Tetrachloride	11/2/2007	11/2/2007	1800	32	µg/m <sup>3</sup>	
Chloroform	11/1/2007	11/1/2007	300	4.9	µg/m <sup>3</sup>	
Isopropanol	11/1/2007	11/1/2007	75	33	µg/m <sup>3</sup>	
m,p-Xylene	11/1/2007	11/1/2007	39	4.1	µg/m <sup>3</sup>	
o-xylene	11/1/2007	11/1/2007	11	4.3	µg/m <sup>3</sup>	
Styrene	11/1/2007	11/1/2007	6.8	4.3	µg/m <sup>3</sup>	
Tetrachloroethene	11/1/2007	11/1/2007	450	6.8	µg/m <sup>3</sup>	
Toluene	11/1/2007	11/1/2007	64	3.8	µg/m <sup>3</sup>	

DPT-2-STCP1		TO-3 (Mod)Air Analysis w/Gasoline			Lab ID: 0710213-001A	
<u>Parameter</u>	<u>Preped</u>	<u>Analyzed</u>	<u>Result</u>	<u>RL</u>	<u>Unit</u>	
Stoddard Solvent (C7-C12)		11/2/2007	2200	1600	µg/m <sup>3</sup>	

DPT-2-STCP3		Toxic Organics in Air by EPA TO-15			Lab ID: 0710213-003A	
<u>Parameter</u>	<u>Preped</u>	<u>Analyzed</u>	<u>Result</u>	<u>RL</u>	<u>Unit</u>	
1,2,4-Trimethylbenzene	11/1/2007	11/1/2007	10	4.9	µg/m <sup>3</sup>	
Acetone	11/1/2007	11/1/2007	67	19	µg/m <sup>3</sup>	
Benzene	11/1/2007	11/1/2007	4.8	3.2	µg/m <sup>3</sup>	
Carbon Disulfide	11/1/2007	11/1/2007	11	3.1	µg/m <sup>3</sup>	
Carbon Tetrachloride	11/2/2007	11/2/2007	1700	32	µg/m <sup>3</sup>	
Chloroform	11/1/2007	11/1/2007	270	4.9	µg/m <sup>3</sup>	
Isopropanol	11/1/2007	11/1/2007	230	33	µg/m <sup>3</sup>	
m,p-Xylene	11/1/2007	11/1/2007	35	4.1	µg/m <sup>3</sup>	
o-xylene	11/1/2007	11/1/2007	8.9	4.3	µg/m <sup>3</sup>	
Styrene	11/1/2007	11/1/2007	5.9	4.3	µg/m <sup>3</sup>	
Tetrachloroethene	11/1/2007	11/1/2007	610	6.8	µg/m <sup>3</sup>	
Toluene	11/1/2007	11/1/2007	70	3.8	µg/m <sup>3</sup>	



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Road \* Milpitas, CA \* Phone: (408) 2635258 \* Fax: (408) 263-8293

Visit us at [www.torrentlab.com](http://www.torrentlab.com) email: [analysis@torrentlab.com](mailto:analysis@torrentlab.com)

Report Prepared For: David Reinsma  
Trinity Source Group

Date Received: 10/31/2007  
Date Reported: 11/6/2007

## Summary Report

DPT-2-STCP3 TO-3 (Mod)Air Analysis w/Gasoline Lab ID: 0710213-003A

<u>Parameter</u>	<u>Preped</u>	<u>Analyzed</u>	<u>Result</u>	<u>RL</u>	<u>Unit</u>
Stoddard Solvent (C7-C12)		11/2/2007	3000	1600	µg/m³

DPT-1-STCP1 Toxic Organics in Air by EPA TO-15 Lab ID: 0710213-004A

<u>Parameter</u>	<u>Preped</u>	<u>Analyzed</u>	<u>Result</u>	<u>RL</u>	<u>Unit</u>
1,2,4-Trimethylbenzene	11/1/2007	11/1/2007	13	4.9	µg/m³
2-Butanone (MEK)	11/1/2007	11/1/2007	15	3.0	µg/m³
4-Ethyl Toluene	11/1/2007	11/1/2007	10	4.9	µg/m³
Acetone	11/1/2007	11/1/2007	52	19	µg/m³
Carbon Disulfide	11/1/2007	11/1/2007	12	3.1	µg/m³
Carbon Tetrachloride	11/1/2007	11/1/2007	120	6.3	µg/m³
Chloroform	11/1/2007	11/1/2007	23	4.9	µg/m³
Ethyl Acetate	11/1/2007	11/1/2007	22	3.6	µg/m³
Isopropanol	11/1/2007	11/1/2007	53	33	µg/m³
m,p-Xylene	11/1/2007	11/1/2007	26	4.1	µg/m³
o-xylene	11/1/2007	11/1/2007	8.8	4.3	µg/m³
Styrene	11/1/2007	11/1/2007	6.6	4.3	µg/m³
Tetrachloroethene	11/1/2007	11/1/2007	120	6.8	µg/m³
Toluene	11/1/2007	11/1/2007	65	3.8	µg/m³

DPT-1-STCP3 Toxic Organics in Air by EPA TO-15 Lab ID: 0710213-005A

<u>Parameter</u>	<u>Preped</u>	<u>Analyzed</u>	<u>Result</u>	<u>RL</u>	<u>Unit</u>
1,2,4-Trimethylbenzene	11/1/2007	11/1/2007	7.9	4.9	µg/m³
2-Butanone (MEK)	11/1/2007	11/1/2007	12	3.0	µg/m³
Acetone	11/1/2007	11/1/2007	42	19	µg/m³
Carbon Disulfide	11/1/2007	11/1/2007	8.5	3.1	µg/m³
Carbon Tetrachloride	11/1/2007	11/1/2007	100	6.3	µg/m³
Chloroform	11/1/2007	11/1/2007	17	4.9	µg/m³
Ethyl Acetate	11/1/2007	11/1/2007	13	3.6	µg/m³
Isopropanol	11/1/2007	11/1/2007	40	33	µg/m³
m,p-Xylene	11/1/2007	11/1/2007	37	4.1	µg/m³
o-xylene	11/1/2007	11/1/2007	9.7	4.3	µg/m³
Styrene	11/1/2007	11/1/2007	6.1	4.3	µg/m³



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Road \* Milpitas, CA \* Phone: (408) 2635258 \* Fax: (408) 263-8293  
Visit us at www.torrentlab.com email: analysis@torrentlab.com

Report Prepared For: David Reinsma  
Trinity Source Group

Date Received: 10/31/2007  
Date Reported: 11/6/2007

## Summary Report

DPT-1-STCP3

Toxic Organics in Air by EPA TO-15

Lab ID: 0710213-005A

<u>Parameter</u>	<u>Preped</u>	<u>Analyzed</u>	<u>Result</u>	<u>RL</u>	<u>Unit</u>
Tetrachloroethene	11/1/2007	11/1/2007	95	6.8	µg/m <sup>3</sup>
Toluene	11/1/2007	11/1/2007	43	3.8	µg/m <sup>3</sup>



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Road • Milpitas, CA • Phone: (408) 263-5258 • Fax: (408) 263-8293

Visit us at [www.torrentlab.com](http://www.torrentlab.com) email: [analysis@torrentlab.com](mailto:analysis@torrentlab.com)

Report prepared for: David Reinsma  
Trinity Source Group

Date Received: 10/31/2007

Date Reported: 11/6/2007

Client Sample ID: DPT-2-STCP1  
Sample Location: 649 Pacific Ave, Alameda  
Sample Matrix: AIR  
Date/Time Sampled 10/31/2007 10:37:00 AM

Lab Sample ID: 0710213-001

Date Prepared:

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
1,1 - Dichloroethene	TO-15	11/1/2007	1.99	2	4.0	ND	µg/m³	R14450
1,1,1,2-Tetrachloroethane	TO-15	11/1/2007	3.44	2	6.9	ND	µg/m³	R14450
1,1,1-Trichloroethane	TO-15	11/1/2007	2.73	2	5.5	ND	µg/m³	R14450
1,1,2,2-Tetrachloroethane	TO-15	11/1/2007	3.44	2	6.9	ND	µg/m³	R14450
1,1,2-Trichloroethane	TO-15	11/1/2007	2.73	2	5.5	ND	µg/m³	R14450
1,1-Dichloroethane	TO-15	11/1/2007	2.03	2	4.1	ND	µg/m³	R14450
1,2,4-Trichlorobenzene	TO-15	11/1/2007	3.56	2	7.1	ND	µg/m³	R14450
1,2,4-Trimethylbenzene	TO-15	11/1/2007	2.46	2	4.9	10	µg/m³	R14450
1,2-Dibromoethane(Ethylene dibromide)	TO-15	11/1/2007	3.84	2	7.7	ND	µg/m³	R14450
1,2-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,2-Dichloroethane	TO-15	11/1/2007	2.03	2	4.1	ND	µg/m³	R14450
1,2-Dichloropropane	TO-15	11/1/2007	2.31	2	4.6	ND	µg/m³	R14450
1,2-dichlorotetrafluoroethane(F114)	TO-15	11/1/2007	3.13	2	6.3	ND	µg/m³	R14450
1,3,5-Trimethylbenzene	TO-15	11/1/2007	2.46	2	4.9	ND	µg/m³	R14450
1,3-Butadiene	TO-15	11/1/2007	1.11	2	2.2	ND	µg/m³	R14450
1,3-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,4-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,4-Dioxane	TO-15	11/1/2007	1.8	2	3.6	ND	µg/m³	R14450
2-Butanone (MEK)	TO-15	11/1/2007	1.48	2	3.0	ND	µg/m³	R14450
2-Hexanone	TO-15	11/1/2007	2.05	2	4.1	ND	µg/m³	R14450
4-Ethyl Toluene	TO-15	11/1/2007	2.46	2	4.9	9.8	µg/m³	R14450
4-Methyl-2-Pentanone (MIBK)	TO-15	11/1/2007	2.05	2	4.1	ND	µg/m³	R14450
Acetone	TO-15	11/1/2007	9.52	2	19	83	µg/m³	R14450
Benzene	TO-15	11/1/2007	1.6	2	3.2	ND	µg/m³	R14450
Benzyl Chloride	TO-15	11/1/2007	2.88	2	5.8	ND	µg/m³	R14450
Bromodichloromethane	TO-15	11/1/2007	3.35	2	6.7	ND	µg/m³	R14450
Bromoform	TO-15	11/1/2007	5.17	2	10	ND	µg/m³	R14450
Bromomethane	TO-15	11/1/2007	1.94	2	3.9	ND	µg/m³	R14450
Carbon Disulfide	TO-15	11/1/2007	1.56	2	3.1	8.8	µg/m³	R14450
Carbon Tetrachloride	TO-15	11/2/2007	3.15	10	32	1800	µg/m³	R14450
Chlorobenzene	TO-15	11/1/2007	2.3	2	4.6	ND	µg/m³	R14450
Chloroethane	TO-15	11/1/2007	1.32	2	2.6	ND	µg/m³	R14450
Chloroform	TO-15	11/1/2007	2.44	2	4.9	300	µg/m³	R14450
Chloromethane	TO-15	11/1/2007	1.04	2	2.1	ND	µg/m³	R14450
cis-1,2-dichloroethene	TO-15	11/1/2007	1.98	2	4.0	ND	µg/m³	R14450



<b>Client Sample ID:</b> DPT-2-STCP1	<b>Lab Sample ID:</b> 0710213-001
<b>Sample Location:</b> 649 Pacific Ave, Alameda	<b>Date Prepared:</b>
<b>Sample Matrix:</b> AIR	
<b>Date/Time Sampled</b> 10/31/2007 10:37:00 AM	

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
cis-1,3-Dichloropropene	TO-15	11/1/2007	2.27	2	4.5	ND	µg/m³	R14450
Dibromochloromethane	TO-15	11/1/2007	4.26	2	8.5	ND	µg/m³	R14450
Dichlorodifluoromethane	TO-15	11/1/2007	2.48	2	5.0	ND	µg/m³	R14450
Ethyl Acetate	TO-15	11/1/2007	1.8	2	3.6	ND	µg/m³	R14450
Ethyl Benzene	TO-15	11/1/2007	1.67	2	3.3	ND	µg/m³	R14450
Freon 113	TO-15	11/1/2007	3.83	2	7.7	ND	µg/m³	R14450
Hexachlorobutadiene	TO-15	11/1/2007	5.34	2	11	ND	µg/m³	R14450
Hexane	TO-15	11/1/2007	3.52	2	7.0	ND	µg/m³	R14450
Isopropanol	TO-15	11/1/2007	16.4	2	33	75	µg/m³	R14450
m,p-Xylene	TO-15	11/1/2007	2.05	2	4.1	39	µg/m³	R14450
Methylene Chloride	TO-15	11/1/2007	3.61	2	7.2	ND	µg/m³	R14450
MTBE	TO-15	11/1/2007	1.81	2	3.6	ND	µg/m³	R14450
Naphthalene	TO-15	11/1/2007	2.62	2	5.2	ND	µg/m³	R14450
o-xylene	TO-15	11/1/2007	2.17	2	4.3	11	µg/m³	R14450
Styrene	TO-15	11/1/2007	2.13	2	4.3	6.8	µg/m³	R14450
Tetrachloroethene	TO-15	11/1/2007	3.39	2	6.8	450	µg/m³	R14450
Tetrahydrofuran	TO-15	11/1/2007	1.48	2	3.0	ND	µg/m³	R14450
Toluene	TO-15	11/1/2007	1.89	2	3.8	64	µg/m³	R14450
trans-1,2-Dichloroethene	TO-15	11/1/2007	1.98	2	4.0	ND	µg/m³	R14450
Trichloroethene	TO-15	11/1/2007	2.69	2	5.4	ND	µg/m³	R14450
Trichlorofluoromethane	TO-15	11/1/2007	2.48	2	5.0	ND	µg/m³	R14450
Vinyl Acetate	TO-15	11/1/2007	1.76	2	3.5	ND	µg/m³	R14450
Vinyl Chloride	TO-15	11/1/2007	1.28	2	2.6	ND	µg/m³	R14450
Surr: 4-Bromofluorobenzene	TO-15	11/1/2007	0	2	50-150	102	%REC	R14450
Surr: 4-Bromofluorobenzene	TO-15	11/2/2007	0	10	50-150	93.8	%REC	R14450
Stoddard Solvent (C7-C12)	TO-3(MOD)	11/2/2007	400	4	1600	2200 x	µg/m³	M14450

Note: Hydrocarbons present in the gasoline range quantified as Stoddard solvent. Chromatogram does not resemble that of Stoddard Solvent pattern.

Client Sample ID: DPT-2-STCP3  
Sample Location: 649 Pacific Ave, Alameda  
Sample Matrix: AIR  
Date/Time Sampled 10/31/2007 1:04:00 PM

Lab Sample ID: 0710213-003

Date Prepared:

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
1,1 - Dichloroethene	TO-15	11/1/2007	1.99	2	4.0	ND	µg/m³	R14450
1,1,1,2-Tetrachloroethane	TO-15	11/1/2007	3.44	2	6.9	ND	µg/m³	R14450
1,1,1-Trichloroethane	TO-15	11/1/2007	2.73	2	5.5	ND	µg/m³	R14450
1,1,2,2-Tetrachloroethane	TO-15	11/1/2007	3.44	2	6.9	ND	µg/m³	R14450
1,1,2-Trichloroethane	TO-15	11/1/2007	2.73	2	5.5	ND	µg/m³	R14450
1,1-Dichloroethane	TO-15	11/1/2007	2.03	2	4.1	ND	µg/m³	R14450
1,2,4-Trichlorobenzene	TO-15	11/1/2007	3.56	2	7.1	ND	µg/m³	R14450
1,2,4-Trimethylbenzene	TO-15	11/1/2007	2.46	2	4.9	10	µg/m³	R14450
1,2-Dibromoethane(Ethylene dibromide)	TO-15	11/1/2007	3.84	2	7.7	ND	µg/m³	R14450
1,2-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,2-Dichloroethane	TO-15	11/1/2007	2.03	2	4.1	ND	µg/m³	R14450
1,2-Dichloropropane	TO-15	11/1/2007	2.31	2	4.6	ND	µg/m³	R14450
1,2-dichlorotetrafluoroethane(F114)	TO-15	11/1/2007	3.13	2	6.3	ND	µg/m³	R14450
1,3,5-Trimethylbenzene	TO-15	11/1/2007	2.46	2	4.9	ND	µg/m³	R14450
1,3-Butadiene	TO-15	11/1/2007	1.11	2	2.2	ND	µg/m³	R14450
1,3-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,4-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,4-Dioxane	TO-15	11/1/2007	1.8	2	3.6	ND	µg/m³	R14450
2-Butanone (MEK)	TO-15	11/1/2007	1.48	2	3.0	ND	µg/m³	R14450
2-Hexanone	TO-15	11/1/2007	2.05	2	4.1	ND	µg/m³	R14450
4-Ethyl Toluene	TO-15	11/1/2007	2.46	2	4.9	ND	µg/m³	R14450
4-Methyl-2-Pentanone (MIBK)	TO-15	11/1/2007	2.05	2	4.1	ND	µg/m³	R14450
Acetone	TO-15	11/1/2007	9.52	2	19	67	µg/m³	R14450
Benzene	TO-15	11/1/2007	1.6	2	3.2	4.8	µg/m³	R14450
Benzyl Chloride	TO-15	11/1/2007	2.88	2	5.8	ND	µg/m³	R14450
Bromodichloromethane	TO-15	11/1/2007	3.35	2	6.7	ND	µg/m³	R14450
Bromoform	TO-15	11/1/2007	5.17	2	10	ND	µg/m³	R14450
Bromomethane	TO-15	11/1/2007	1.94	2	3.9	ND	µg/m³	R14450
Carbon Disulfide	TO-15	11/1/2007	1.56	2	3.1	11	µg/m³	R14450
Carbon Tetrachloride	TO-15	11/2/2007	3.15	10	32	1700	µg/m³	R14450
Chlorobenzene	TO-15	11/1/2007	2.3	2	4.6	ND	µg/m³	R14450
Chloroethane	TO-15	11/1/2007	1.32	2	2.6	ND	µg/m³	R14450
Chloroform	TO-15	11/1/2007	2.44	2	4.9	270	µg/m³	R14450
Chloromethane	TO-15	11/1/2007	1.04	2	2.1	ND	µg/m³	R14450
cis-1,2-dichloroethene	TO-15	11/1/2007	1.98	2	4.0	ND	µg/m³	R14450
cis-1,3-Dichloropropene	TO-15	11/1/2007	2.27	2	4.5	ND	µg/m³	R14450
Dibromochloromethane	TO-15	11/1/2007	4.26	2	8.5	ND	µg/m³	R14450
Dichlorodifluoromethane	TO-15	11/1/2007	2.48	2	5.0	ND	µg/m³	R14450
Ethyl Acetate	TO-15	11/1/2007	1.8	2	3.6	ND	µg/m³	R14450
Ethyl Benzene	TO-15	11/1/2007	1.67	2	3.3	ND	µg/m³	R14450
Freon 113	TO-15	11/1/2007	3.83	2	7.7	ND	µg/m³	R14450
Hexachlorobutadiene	TO-15	11/1/2007	5.34	2	11	ND	µg/m³	R14450

<b>Client Sample ID:</b> DPT-2-STCP3	<b>Lab Sample ID:</b> 0710213-003
<b>Sample Location:</b> 649 Pacific Ave, Alameda	<b>Date Prepared:</b>
<b>Sample Matrix:</b> AIR	
<b>Date/Time Sampled</b> 10/31/2007 1:04:00 PM	

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Hexane	TO-15	11/1/2007	3.52	2	7.0	ND	µg/m³	R14450
Isopropanol	TO-15	11/1/2007	16.4	2	33	230	µg/m³	R14450
m,p-Xylene	TO-15	11/1/2007	2.05	2	4.1	35	µg/m³	R14450
Methylene Chloride	TO-15	11/1/2007	3.61	2	7.2	ND	µg/m³	R14450
MTBE	TO-15	11/1/2007	1.81	2	3.6	ND	µg/m³	R14450
Naphthalene	TO-15	11/1/2007	2.62	2	5.2	ND	µg/m³	R14450
o-xylene	TO-15	11/1/2007	2.17	2	4.3	8.9	µg/m³	R14450
Styrene	TO-15	11/1/2007	2.13	2	4.3	5.9	µg/m³	R14450
Tetrachloroethene	TO-15	11/1/2007	3.39	2	6.8	610	µg/m³	R14450
Tetrahydrofuran	TO-15	11/1/2007	1.48	2	3.0	ND	µg/m³	R14450
Toluene	TO-15	11/1/2007	1.89	2	3.8	70	µg/m³	R14450
trans-1,2-Dichloroethene	TO-15	11/1/2007	1.98	2	4.0	ND	µg/m³	R14450
Trichloroethene	TO-15	11/1/2007	2.69	2	5.4	ND	µg/m³	R14450
Trichlorofluoromethane	TO-15	11/1/2007	2.48	2	5.0	ND	µg/m³	R14450
Vinyl Acetate	TO-15	11/1/2007	1.76	2	3.5	ND	µg/m³	R14450
Vinyl Chloride	TO-15	11/1/2007	1.28	2	2.6	ND	µg/m³	R14450
Surr: 4-Bromofluorobenzene	TO-15	11/1/2007	0	2	50-150	101	%REC	R14450
Surr: 4-Bromofluorobenzene	TO-15	11/2/2007	0	10	50-150	95.2	%REC	R14450
Stoddard Solvent (C7-C12)	TO-3(MOD)	11/2/2007	400	4	1600	3000 x	µg/m³	M14450

Note: Hydrocarbons present in the gasoline range quantified as Stoddard solvent. Chromatogram does not resemble that of Stoddard Solvent pattern.

<b>Client Sample ID:</b>	DPT-1-STCPI	<b>Lab Sample ID:</b>	0710213-004
<b>Sample Location:</b>	649 Pacific Ave, Alameda	<b>Date Prepared:</b>	
<b>Sample Matrix:</b>	AIR		
<b>Date/Time Sampled</b>	10/31/2007 2:01:00 PM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
1,1 - Dichloroethene	TO-15	11/1/2007	1.99	2	4.0	ND	µg/m³	R14450
1,1,1,2-Tetrachloroethane	TO-15	11/1/2007	3.44	2	6.9	ND	µg/m³	R14450
1,1,1-Trichloroethane	TO-15	11/1/2007	2.73	2	5.5	ND	µg/m³	R14450
1,1,2,2-Tetrachloroethane	TO-15	11/1/2007	3.44	2	6.9	ND	µg/m³	R14450
1,1,2-Trichloroethane	TO-15	11/1/2007	2.73	2	5.5	ND	µg/m³	R14450
1,1-Dichloroethane	TO-15	11/1/2007	2.03	2	4.1	ND	µg/m³	R14450
1,2,4-Trichlorobenzene	TO-15	11/1/2007	3.56	2	7.1	ND	µg/m³	R14450
1,2,4-Trimethylbenzene	TO-15	11/1/2007	2.46	2	4.9	13	µg/m³	R14450
1,2-Dibromoethane(Ethylene dibromide)	TO-15	11/1/2007	3.84	2	7.7	ND	µg/m³	R14450
1,2-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,2-Dichloroethane	TO-15	11/1/2007	2.03	2	4.1	ND	µg/m³	R14450
1,2-Dichloropropane	TO-15	11/1/2007	2.31	2	4.6	ND	µg/m³	R14450
1,2-dichlorotetrafluoroethane(F114)	TO-15	11/1/2007	3.13	2	6.3	ND	µg/m³	R14450
1,3,5-Trimethylbenzene	TO-15	11/1/2007	2.46	2	4.9	ND	µg/m³	R14450
1,3-Butadiene	TO-15	11/1/2007	1.11	2	2.2	ND	µg/m³	R14450
1,3-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,4-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,4-Dioxane	TO-15	11/1/2007	1.8	2	3.6	ND	µg/m³	R14450
2-Butanone (MEK)	TO-15	11/1/2007	1.48	2	3.0	15	µg/m³	R14450
2-Hexanone	TO-15	11/1/2007	2.05	2	4.1	ND	µg/m³	R14450
4-Ethyl Toluene	TO-15	11/1/2007	2.46	2	4.9	10	µg/m³	R14450
4-Methyl-2-Pentanone (MIBK)	TO-15	11/1/2007	2.05	2	4.1	ND	µg/m³	R14450
Acetone	TO-15	11/1/2007	9.52	2	19	52	µg/m³	R14450
Benzene	TO-15	11/1/2007	1.6	2	3.2	ND	µg/m³	R14450
Benzyl Chloride	TO-15	11/1/2007	2.88	2	5.8	ND	µg/m³	R14450
Bromodichloromethane	TO-15	11/1/2007	3.35	2	6.7	ND	µg/m³	R14450
Bromoform	TO-15	11/1/2007	5.17	2	10	ND	µg/m³	R14450
Bromomethane	TO-15	11/1/2007	1.94	2	3.9	ND	µg/m³	R14450
Carbon Disulfide	TO-15	11/1/2007	1.56	2	3.1	12	µg/m³	R14450
Carbon Tetrachloride	TO-15	11/1/2007	3.15	2	6.3	120	µg/m³	R14450
Chlorobenzene	TO-15	11/1/2007	2.3	2	4.6	ND	µg/m³	R14450
Chloroethane	TO-15	11/1/2007	1.32	2	2.6	ND	µg/m³	R14450
Chloroform	TO-15	11/1/2007	2.44	2	4.9	23	µg/m³	R14450
Chloromethane	TO-15	11/1/2007	1.04	2	2.1	ND	µg/m³	R14450
cis-1,2-dichloroethene	TO-15	11/1/2007	1.98	2	4.0	ND	µg/m³	R14450
cis-1,3-Dichloropropene	TO-15	11/1/2007	2.27	2	4.5	ND	µg/m³	R14450
Dibromochloromethane	TO-15	11/1/2007	4.26	2	8.5	ND	µg/m³	R14450
Dichlorodifluoromethane	TO-15	11/1/2007	2.48	2	5.0	ND	µg/m³	R14450
Ethyl Acetate	TO-15	11/1/2007	1.8	2	3.6	22	µg/m³	R14450
Ethyl Benzene	TO-15	11/1/2007	1.67	2	3.3	ND	µg/m³	R14450
Freon 113	TO-15	11/1/2007	3.83	2	7.7	ND	µg/m³	R14450
Hexachlorobutadiene	TO-15	11/1/2007	5.34	2	11	ND	µg/m³	R14450

Client Sample ID: DPT-1-STCP1  
Sample Location: 649 Pacific Ave, Alameda  
Sample Matrix: AIR  
Date/Time Sampled 10/31/2007 2:01:00 PM

Lab Sample ID: 0710213-004

Date Prepared:

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Hexane	TO-15	11/1/2007	3.52	2	7.0	ND	µg/m³	R14450
Isopropanol	TO-15	11/1/2007	16.4	2	33	53	µg/m³	R14450
m,p-Xylene	TO-15	11/1/2007	2.05	2	4.1	26	µg/m³	R14450
Methylene Chloride	TO-15	11/1/2007	3.61	2	7.2	ND	µg/m³	R14450
MTBE	TO-15	11/1/2007	1.81	2	3.6	ND	µg/m³	R14450
Naphthalene	TO-15	11/1/2007	2.62	2	5.2	ND	µg/m³	R14450
o-xylene	TO-15	11/1/2007	2.17	2	4.3	8.8	µg/m³	R14450
Styrene	TO-15	11/1/2007	2.13	2	4.3	6.6	µg/m³	R14450
Tetrachloroethene	TO-15	11/1/2007	3.39	2	6.8	120	µg/m³	R14450
Tetrahydrofuran	TO-15	11/1/2007	1.48	2	3.0	ND	µg/m³	R14450
Toluene	TO-15	11/1/2007	1.89	2	3.8	65	µg/m³	R14450
trans-1,2-Dichloroethene	TO-15	11/1/2007	1.98	2	4.0	ND	µg/m³	R14450
Trichloroethene	TO-15	11/1/2007	2.69	2	5.4	ND	µg/m³	R14450
Trichlorofluoromethane	TO-15	11/1/2007	2.48	2	5.0	ND	µg/m³	R14450
Vinyl Acetate	TO-15	11/1/2007	1.76	2	3.5	ND	µg/m³	R14450
Vinyl Chloride	TO-15	11/1/2007	1.28	2	2.6	ND	µg/m³	R14450
Surr: 4-Bromofluorobenzene	TO-15	11/1/2007	0	2	50-150	102	%REC	R14450
Stoddard Solvent (C7-C12)	TO-3(MOD)	11/2/2007	400	4	1600	ND	µg/m³	M14450

Note: Hydrocarbons present in the gasoline range quantified as Stoddard solvent. Chromatogram does not resemble that of Stoddard Solvent pattern.

<b>Client Sample ID:</b>	DPT-1-STCP3	<b>Lab Sample ID:</b>	0710213-005
<b>Sample Location:</b>	649 Pacific Ave, Alameda	<b>Date Prepared:</b>	
<b>Sample Matrix:</b>	AIR		
<b>Date/Time Sampled</b>	10/31/2007 4:04:00 PM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
1,1 - Dichloroethene	TO-15	11/1/2007	1.99	2	4.0	ND	µg/m³	R14450
1,1,1,2-Tetrachloroethane	TO-15	11/1/2007	3.44	2	6.9	ND	µg/m³	R14450
1,1,1-Trichloroethane	TO-15	11/1/2007	2.73	2	5.5	ND	µg/m³	R14450
1,1,2,2-Tetrachloroethane	TO-15	11/1/2007	3.44	2	6.9	ND	µg/m³	R14450
1,1,2-Trichloroethane	TO-15	11/1/2007	2.73	2	5.5	ND	µg/m³	R14450
1,1-Dichloroethane	TO-15	11/1/2007	2.03	2	4.1	ND	µg/m³	R14450
1,2,4-Trichlorobenzene	TO-15	11/1/2007	3.56	2	7.1	ND	µg/m³	R14450
1,2,4-Trimethylbenzene	TO-15	11/1/2007	2.46	2	4.9	7.9	µg/m³	R14450
1,2-Dibromoethane(Ethylene dibromide)	TO-15	11/1/2007	3.84	2	7.7	ND	µg/m³	R14450
1,2-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,2-Dichloroethane	TO-15	11/1/2007	2.03	2	4.1	ND	µg/m³	R14450
1,2-Dichloropropane	TO-15	11/1/2007	2.31	2	4.6	ND	µg/m³	R14450
1,2-dichlorotetrafluoroethane(F114)	TO-15	11/1/2007	3.13	2	6.3	ND	µg/m³	R14450
1,3,5-Trimethylbenzene	TO-15	11/1/2007	2.46	2	4.9	ND	µg/m³	R14450
1,3-Butadiene	TO-15	11/1/2007	1.11	2	2.2	ND	µg/m³	R14450
1,3-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,4-Dichlorobenzene	TO-15	11/1/2007	3.01	2	6.0	ND	µg/m³	R14450
1,4-Dioxane	TO-15	11/1/2007	1.8	2	3.6	ND	µg/m³	R14450
2-Butanone (MEK)	TO-15	11/1/2007	1.48	2	3.0	12	µg/m³	R14450
2-Hexanone	TO-15	11/1/2007	2.05	2	4.1	ND	µg/m³	R14450
4-Ethyl Toluene	TO-15	11/1/2007	2.46	2	4.9	ND	µg/m³	R14450
4-Methyl-2-Pentanone (MIBK)	TO-15	11/1/2007	2.05	2	4.1	ND	µg/m³	R14450
Acetone	TO-15	11/1/2007	9.52	2	19	42	µg/m³	R14450
Benzene	TO-15	11/1/2007	1.6	2	3.2	ND	µg/m³	R14450
Benzyl Chloride	TO-15	11/1/2007	2.88	2	5.8	ND	µg/m³	R14450
Bromodichloromethane	TO-15	11/1/2007	3.35	2	6.7	ND	µg/m³	R14450
Bromoform	TO-15	11/1/2007	5.17	2	10	ND	µg/m³	R14450
Bromomethane	TO-15	11/1/2007	1.94	2	3.9	ND	µg/m³	R14450
Carbon Disulfide	TO-15	11/1/2007	1.56	2	3.1	8.5	µg/m³	R14450
Carbon Tetrachloride	TO-15	11/1/2007	3.15	2	6.3	100	µg/m³	R14450
Chlorobenzene	TO-15	11/1/2007	2.3	2	4.6	ND	µg/m³	R14450
Chloroethane	TO-15	11/1/2007	1.32	2	2.6	ND	µg/m³	R14450
Chloroform	TO-15	11/1/2007	2.44	2	4.9	17	µg/m³	R14450
Chloromethane	TO-15	11/1/2007	1.04	2	2.1	ND	µg/m³	R14450
cis-1,2-dichloroethene	TO-15	11/1/2007	1.98	2	4.0	ND	µg/m³	R14450
cis-1,3-Dichloropropene	TO-15	11/1/2007	2.27	2	4.5	ND	µg/m³	R14450
Dibromochloromethane	TO-15	11/1/2007	4.26	2	8.5	ND	µg/m³	R14450
Dichlorodifluoromethane	TO-15	11/1/2007	2.48	2	5.0	ND	µg/m³	R14450
Ethyl Acetate	TO-15	11/1/2007	1.8	2	3.6	13	µg/m³	R14450
Ethyl Benzene	TO-15	11/1/2007	1.67	2	3.3	ND	µg/m³	R14450
Freon 113	TO-15	11/1/2007	3.83	2	7.7	ND	µg/m³	R14450
Hexachlorobutadiene	TO-15	11/1/2007	5.34	2	11	ND	µg/m³	R14450

Client Sample ID: DPT-1-STCP3  
Sample Location: 649 Pacific Ave, Alameda  
Sample Matrix: AIR  
Date/Time Sampled 10/31/2007 4:04:00 PM

Lab Sample ID: 0710213-005

Date Prepared:

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Hexane	TO-15	11/1/2007	3.52	2	7.0	ND	µg/m³	R14450
Isopropanol	TO-15	11/1/2007	16.4	2	33	40	µg/m³	R14450
m,p-Xylene	TO-15	11/1/2007	2.05	2	4.1	37	µg/m³	R14450
Methylene Chloride	TO-15	11/1/2007	3.61	2	7.2	ND	µg/m³	R14450
MTBE	TO-15	11/1/2007	1.81	2	3.6	ND	µg/m³	R14450
Naphthalene	TO-15	11/1/2007	2.62	2	5.2	ND	µg/m³	R14450
o-xylene	TO-15	11/1/2007	2.17	2	4.3	9.7	µg/m³	R14450
Styrene	TO-15	11/1/2007	2.13	2	4.3	6.1	µg/m³	R14450
Tetrachloroethene	TO-15	11/1/2007	3.39	2	6.8	95	µg/m³	R14450
Tetrahydrofuran	TO-15	11/1/2007	1.48	2	3.0	ND	µg/m³	R14450
Toluene	TO-15	11/1/2007	1.89	2	3.8	43	µg/m³	R14450
trans-1,2-Dichloroethene	TO-15	11/1/2007	1.98	2	4.0	ND	µg/m³	R14450
Trichloroethene	TO-15	11/1/2007	2.69	2	5.4	ND	µg/m³	R14450
Trichlorofluoromethane	TO-15	11/1/2007	2.48	2	5.0	ND	µg/m³	R14450
Vinyl Acetate	TO-15	11/1/2007	1.76	2	3.5	ND	µg/m³	R14450
Vinyl Chloride	TO-15	11/1/2007	1.28	2	2.6	ND	µg/m³	R14450
Surr: 4-Bromofluorobenzene	TO-15	11/1/2007	0	2	50-150	103	%REC	R14450
Stoddard Solvent (C7-C12)	TO-3(MOD)	11/3/2007	400	4	1600	ND	µg/m³	M14450

## Definitions, legends and Notes

Note	Description
ug/kg	Microgram per kilogram (ppb, part per billion).
ug/L	Microgram per liter (ppb, part per billion).
mg/kg	Milligram per kilogram (ppm, part per million).
mg/L	Milligram per liter (ppm, part per million).
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate.
MDL	Method detection limit.
MRL	Modified reporting limit. When sample is subject to dilution, reporting limit times dilution factor yields MRL.
MS/MSD	Matrix spike/matrix spike duplicate.
N/A	Not applicable.
ND	Not detected at or above detection limit.
NR	Not reported.
QC	Quality Control.
RL	Reporting limit.
% RPD	Percent relative difference.
a	pH was measured immediately upon the receipt of the sample, but it was still done outside the holding time.
sub	Analyzed by subcontracting laboratory, Lab Certificate #



CLIENT: Trinity Source Group  
 Work Order: 0710213  
 Project: 103.005.004

**ANALYTICAL QC SUMMARY REPORT**

BatchID: R14450

Sample ID	MB	SampType: MBLK	TestCode: TO-15	Units: ppbv	Prep Date: 10/31/2007	RunNo: 14450					
Client ID:	ZZZZZ	Batch ID: R14450	TestNo: TO-15		Analysis Date: 10/31/2007	SeqNo: 208425					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1 - Dichloroethene	ND	0.50									
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromoethane(Ethylene dibromide)	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,2-dichlorotetrafluoroethane(F114)	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Butadiene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
1,4-Dioxane	ND	0.50									
2-Butanone (MEK)	ND	0.50									
2-Hexanone	ND	0.50									
4-Ethyl Toluene	ND	0.50									
4-Methyl-2-Pentanone (MIBK)	ND	0.50									
Acetone	ND	4.0									
Benzene	ND	0.50									
Benzyl Chloride	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon Disulfide	ND	0.50									
Carbon Tetrachloride	ND	0.50									

Qualifiers: E Value above quantitation range      H Holding times for preparation or analysis exceeded      J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits

CLIENT: Trinity Source Group  
 Work Order: 0710213  
 Project: 103.005.004

## ANALYTICAL QC SUMMARY REPORT

BatchID: R14450

Sample ID	MB	SampType: MBLK	TestCode: TO-15	Units: ppbv	Prep Date: 10/31/2007	RunNo: 14450
Client ID:	ZZZZZ	Batch ID: R14450	TestNo: TO-15		Analysis Date: 10/31/2007	SeqNo: 208425

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethyl Acetate	ND	0.50									
Ethyl Benzene	ND	0.50									
Freon 113	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Hexane	ND	1.0									
Isopropanol	ND	4.0									
m,p-Xylene	ND	0.50									
Methylene Chloride	2.840	1.0									B
MTBE	ND	0.50									
Naphthalene	ND	5.0									
o-xylene	ND	0.50									
Styrene	ND	0.50									
Tetrachloroethene	0.4200	0.50									J
Tetrahydrofuran	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl Acetate	ND	0.50									
Vinyl Chloride	ND	0.50									
Surr: 4-Bromofluorobenzene	36.64	0	40	0	91.6	50	150				

Qualifiers:	E Value above quantitation range	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted recovery limits

CLIENT: Trinity Source Group  
 Work Order: 0710213  
 Project: 103.005.004

## ANALYTICAL QC SUMMARY REPORT

BatchID: R14450

Sample ID	LCS	SampType: LCS	TestCode: TO-15	Units: ppbv	Prep Date: 10/31/2007	RunNo: 14450					
Client ID: ZZZZZ	Batch ID: R14450	TestNo: TO-15	Analysis Date: 10/31/2007	SeqNo: 208426							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1 - Dichloroethene	18.65	0.50	20	0	93.3	50	150				
1,1,1,2-Tetrachloroethane	22.02	0.50	20	0	110	50	150				
1,1,1-Trichloroethane	19.94	0.50	20	0	99.7	50	150				
1,1,2,2-Tetrachloroethane	19.81	0.50	20	0	99.0	50	150				
1,1,2-Trichloroethane	20.71	0.50	20	0	104	50	150				
1,1-Dichloroethane	19.54	0.50	20	0	97.7	50	150				
1,2,4-Trichlorobenzene	18.42	0.50	20	0	92.1	50	150				
1,2,4-Trimethylbenzene	20.59	0.50	20	0	103	50	150				
1,2-Dibromoethane(Ethylene dibromide)	20.20	0.50	20	0	101	50	150				
1,2-Dichlorobenzene	19.82	0.50	20	0	99.1	50	150				
1,2-Dichloroethane	21.75	0.50	20	0	109	50	150				
1,2-Dichloropropane	22.37	0.50	20	0	112	50	150				
1,2-dichlorotetrafluoroethane(F114)	26.83	0.50	20	0	134	50	150				
1,3,5-Trimethylbenzene	21.38	0.50	20	0	107	50	150				
1,3-Butadiene	20.73	0.50	20	0	104	50	150				
1,3-Dichlorobenzene	19.87	0.50	20	0	99.4	50	150				
1,4-Dichlorobenzene	19.87	0.50	20	0	99.4	50	150				
1,4-Dioxane	23.67	0.50	20	0	118	50	150				
2-Butanone (MEK)	20.61	0.50	20	0	103	50	150				
2-Hexanone	21.32	0.50	20	0	107	50	150				
4-Ethyl Toluene	21.04	0.50	20	0	105	50	150				
4-Methyl-2-Pentanone (MIBK)	22.53	0.50	20	0	113	50	150				
Acetone	22.49	4.0	20	0	112	50	150				
Benzene	19.64	0.50	20	0	98.2	50	150				
Benzyl Chloride	20.18	0.50	20	0	101	50	150				
Bromodichloromethane	21.42	0.50	20	0	107	50	150				
Bromoform	21.20	0.50	20	0	106	50	150				
Bromomethane	19.08	0.50	20	0	95.4	50	150				
Carbon Disulfide	19.45	0.50	20	0	97.3	50	150				
Carbon Tetrachloride	18.78	0.50	20	0	93.9	50	150				
Chlorobenzene	21.68	0.50	20	0	108	50	150				

Qualifiers: E Value above quantitation range      H Holding times for preparation or analysis exceeded      J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits

**CLIENT:** Trinity Source Group  
**Work Order:** 0710213  
**Project:** 103.005.004

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R14450**

Sample ID	LCS	SampType: LCS	TestCode: TO-15	Units: ppbv	Prep Date: 10/31/2007	RunNo: 14450					
Client ID:	ZZZZZ	Batch ID: R14450	TestNo: TO-15	Analysis Date: 10/31/2007	SeqNo: 208426						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	20.01	0.50	20	0	100	50	150				
Chloroform	18.41	0.50	20	0	92.0	50	150				
Chloromethane	21.39	0.50	20	0	107	50	150				
cis-1,2-dichloroethene	19.99	0.50	20	0	100	50	150				
cis-1,3-Dichloropropene	21.48	0.50	20	0	107	50	150				
Dibromochloromethane	20.64	0.50	20	0	103	50	150				
Ethyl Acetate	19.88	0.50	20	0	99.4	50	150				
Ethyl Benzene	20.66	0.50	20	0	103	50	150				
Freon 113	20.76	0.50	20	0	104	50	150				
Hexachlorobutadiene	17.99	0.50	20	0	90.0	50	150				
Hexane	19.37	1.0	20	0	96.8	50	150				
Isopropanol	18.70	4.0	20	0	93.5	50	150				
m,p-Xylene	41.94	0.50	40	0	105	50	150				
Methylene Chloride	20.72	1.0	20	2.84	89.4	50	150				B
MTBE	20.29	0.50	20	0	101	50	150				
Naphthalene	18.37	5.0	20	0	91.8	50	150				
o-xylene	20.77	0.50	20	0	104	50	150				
Styrene	20.71	0.50	20	0	104	50	150				
Tetrachloroethene	20.99	0.50	20	0.42	103	50	150				
Toluene	21.30	0.50	20	0	106	50	150				
trans-1,2-Dichloroethene	19.10	0.50	20	0	95.5	50	150				
Trichloroethene	21.20	0.50	20	0	106	50	150				
Trichlorofluoromethane	20.53	0.50	20	0	103	50	150				
Vinyl Acetate	18.03	0.50	20	0	90.2	50	150				
Vinyl Chloride	20.20	0.50	20	0	101	50	150				
Surr: 4-Bromofluorobenzene	20.81	0	20	0	104	50	150				

Sample ID	LCSD	SampType: LCSD	TestCode: TO-15	Units: ppbv	Prep Date: 10/31/2007	RunNo: 14450					
Client ID:	ZZZZZ	Batch ID: R14450	TestNo: TO-15	Analysis Date: 10/31/2007	SeqNo: 208427						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:** E Value above quantitation range      H Holding times for preparation or analysis exceeded      J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits

CLIENT: Trinity Source Group  
 Work Order: 0710213  
 Project: 103.005.004

## ANALYTICAL QC SUMMARY REPORT

BatchID: R14450

Sample ID	LCSD	SampType: LCSD	TestCode: TO-15	Units: ppbv	Prep Date: 10/31/2007	RunNo: 14450					
Client ID: ZZZZZ	Batch ID: R14450	TestNo: TO-15	Analysis Date: 10/31/2007	SeqNo: 208427							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1 - Dichloroethene	19.54	0.50	20	0	97.7	50	150	18.65	4.66	30	
1,1,1,2-Tetrachloroethane	22.09	0.50	20	0	110	50	150	22.02	0.317	30	
1,1,1-Trichloroethane	20.12	0.50	20	0	101	50	150	19.94	0.899	30	
1,1,2,2-Tetrachloroethane	20.37	0.50	20	0	102	50	150	19.81	2.79	30	
1,1,2-Trichloroethane	20.63	0.50	20	0	103	50	150	20.71	0.387	30	
1,1-Dichloroethane	19.67	0.50	20	0	98.4	50	150	19.54	0.663	30	
1,2,4-Trichlorobenzene	18.11	0.50	20	0	90.6	50	150	18.42	1.70	30	
1,2,4-Trimethylbenzene	20.51	0.50	20	0	103	50	150	20.59	0.389	30	
1,2-Dibromoethane(Ethylene dibromide)	19.69	0.50	20	0	98.4	50	150	20.2	2.56	30	
1,2-Dichlorobenzene	19.97	0.50	20	0	99.8	50	150	19.82	0.754	30	
1,2-Dichloroethane	21.92	0.50	20	0	110	50	150	21.75	0.779	30	
1,2-Dichloropropane	21.86	0.50	20	0	109	50	150	22.37	2.31	30	
1,2-dichlorotetrafluoroethane(F114)	25.64	0.50	20	0	128	50	150	26.83	4.54	30	
1,3,5-Trimethylbenzene	21.42	0.50	20	0	107	50	150	21.38	0.187	30	
1,3-Butadiene	20.99	0.50	20	0	105	50	150	20.73	1.25	30	
1,3-Dichlorobenzene	19.88	0.50	20	0	99.4	50	150	19.87	0.0503	30	
1,4-Dichlorobenzene	19.88	0.50	20	0	99.4	50	150	19.87	0.0503	30	
1,4-Dioxane	24.06	0.50	20	0	120	50	150	23.67	1.63	30	
2-Butanone (MEK)	21.39	0.50	20	0	107	50	150	20.61	3.71	30	
2-Hexanone	22.20	0.50	20	0	111	50	150	21.32	4.04	30	
4-Ethyl Toluene	21.11	0.50	20	0	106	50	150	21.04	0.332	30	
4-Methyl-2-Pentanone (MIBK)	21.65	0.50	20	0	108	50	150	22.53	3.98	30	
Acetone	22.74	4.0	20	0	114	50	150	22.49	1.11	30	
Benzene	20.19	0.50	20	0	101	50	150	19.64	2.76	30	
Benzyl Chloride	19.92	0.50	20	0	99.6	50	150	20.18	1.30	30	
Bromodichloromethane	21.19	0.50	20	0	106	50	150	21.42	1.08	30	
Bromoform	21.32	0.50	20	0	107	50	150	21.2	0.564	30	
Bromomethane	19.12	0.50	20	0	95.6	50	150	19.08	0.209	30	
Carbon Disulfide	20.23	0.50	20	0	101	50	150	19.45	3.93	30	
Carbon Tetrachloride	18.87	0.50	20	0	94.4	50	150	18.78	0.478	30	
Chlorobenzene	21.90	0.50	20	0	110	50	150	21.68	1.01	30	

Qualifiers: E Value above quantitation range  
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits

CLIENT: Trinity Source Group  
 Work Order: 0710213  
 Project: 103.005.004

## ANALYTICAL QC SUMMARY REPORT

BatchID: R14450

Sample ID	LCSD	SampType: LCSD	TestCode: TO-15	Units: ppbv	Prep Date: 10/31/2007	RunNo: 14450					
Client ID: ZZZZZ	Batch ID: R14450	TestNo: TO-15	Analysis Date: 10/31/2007	SeqNo: 208427							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	19.30	0.50	20	0	96.5	50	150	20.01	3.61	30	
Chloroform	19.39	0.50	20	0	97.0	50	150	18.41	5.19	30	
Chloromethane	21.95	0.50	20	0	110	50	150	21.39	2.58	30	
cis-1,2-dichloroethene	19.83	0.50	20	0	99.2	50	150	19.99	0.804	30	
cis-1,3-Dichloropropene	21.18	0.50	20	0	106	50	150	21.48	1.41	30	
Dibromochloromethane	19.95	0.50	20	0	99.8	50	150	20.64	3.40	30	
Ethyl Acetate	20.86	0.50	20	0	104	50	150	19.88	4.81	30	
Ethyl Benzene	20.62	0.50	20	0	103	50	150	20.66	0.194	30	
Freon 113	21.54	0.50	20	0	108	50	150	20.76	3.69	30	
Hexachlorobutadiene	18.04	0.50	20	0	90.2	50	150	17.99	0.278	30	
Hexane	20.01	1.0	20	0	100	50	150	19.37	3.25	30	
Isopropanol	17.50	4.0	20	0	87.5	50	150	18.7	6.63	30	
m,p-Xylene	42.10	0.50	40	0	105	50	150	41.94	0.381	30	
Methylene Chloride	20.77	1.0	20	2.84	89.7	50	150	20.72	0.241	30	B
MTBE	20.94	0.50	20	0	105	50	150	20.29	3.15	30	
Naphthalene	17.98	5.0	20	0	89.9	50	150	18.37	2.15	30	
o-xylene	20.93	0.50	20	0	105	50	150	20.77	0.767	30	
Styrene	20.70	0.50	20	0	104	50	150	20.71	0.0483	30	
Tetrachloroethene	21.51	0.50	20	0.42	105	50	150	20.99	2.45	30	
Toluene	21.40	0.50	20	0	107	50	150	21.3	0.468	30	
trans-1,2-Dichloroethene	19.37	0.50	20	0	96.8	50	150	19.1	1.40	30	
Trichloroethene	21.05	0.50	20	0	105	50	150	21.2	0.710	30	
Trichlorofluoromethane	20.74	0.50	20	0	104	50	150	20.53	1.02	30	
Vinyl Acetate	18.50	0.50	20	0	92.5	50	150	18.03	2.57	30	
Vinyl Chloride	18.62	0.50	20	0	93.1	50	150	20.2	8.14	30	
Surr: 4-Bromofluorobenzene	20.73	0	20	0	104	50	150	0	0	30	

Qualifiers: E Value above quantitation range  
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits



# TORRENT LABORATORY, INC.

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

0710213

NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY

Company Name: TRINITY SOURCE GROUP INC Location of Sampling: 649 Pacific Ave, Alameda  
 Address: 500 Chestnut Street Ste 225 Purpose:  
 City: Santa Cruz State: CA Zip Code: 95060 Special Instructions / Comments:  
 Telephone: 831-426-5600 FAX: 426-5602  
 REPORT TO: Dave Reinsma SAMPLER: DAN BIRCH P.O. #: 103.005.004 EMAIL: dar@tsgcorp.net

TURNAROUND TIME:  
 10 Working Days  3 Working Days  2 - 8 Hours  
 7 Working Days  2 Working Days  Other  
 5 Working Days  24 Hours

SAMPLE TYPE:  
 Storm Water  Other  
 Waste Water  
 Ground Water  
 Soil

REPORT FORMAT:  
 QC Level II  
 EDF  
 Excel / EDD

### ANALYSIS REQUESTED

CLIENT'S SAMPLE I.D.	DATE/TIME SAMPLED	SAMPLE TYPE	# OF CONT	CONT TYPE	ANALYSIS REQUESTED										TORRENT'S SAMPLE I.D.			
1. DPT-2-STEP 1	10/31/07 1037	VAPOR	1	1 LTR FEDERAL	X	X												01A
2. DPT-2-STEP 2	1130	↓	↓	↓	X	X												HOLD 02A
3. DPT-2-STEP 3	1304	↓	↓	↓	X	X												03A
4. DPT-1-STEP 1	1401	↓	↓	↓	X	X												04A
5. DPT-1-STEP 3	1604	↓	1	1 LTR FEDERAL	X	X												05A
6.																		
7.																		
8.																		
9.																		
10.																		

1 Relinquished By: <u>[Signature]</u> Print: <u>DAN BIRCH</u> Date: <u>10/31/07</u> Time: <u>1823</u> Received By: <u>[Signature]</u> Print: <u>[Signature]</u> Date: <u>10/31/07</u> Time: <u>18:23</u>
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 air Sample seals intact?  Yes  NO

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: \_\_\_\_\_ Date: \_\_\_\_\_ Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_ Page 1 of 1