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Alameda County
Environmental Health

March 13, 2012

Mr. Jerry Wickham, PG
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: Two Reports:
1) Sub-Slab Soil Vapor Sampling Report
2) Soil and Groundwater Investigation Results
P&D 23rd Avenue Associates, LLC
1125 Miller Avenue, Oakland, CA
Clearwater Project No. CB018H
ACEH Fuel Case Leak No. RO0000294

Dear Mr. Wickham,

As the legally authorized representative of the above-referenced project location I have reviewed the attached report prepared by my consultant of record, Clearwater Group. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge.

Sincerely,

John Protopappas
For P&D 23rd Avenue Associates, LLC

CLEARWATER GROUP
Environmental Services

SUB-SLAB SOIL VAPOR SAMPLING REPORT

P&D 23rd Avenue Associates LLC
(Formerly 23rd Avenue Partners)
1125 Miller Avenue
Oakland, California

Prepared by

CLEARWATER GROUP

for

Mr. John Protopappas
P&D 23rd Avenue Associates LLC
(Formerly 23rd Avenue Partners)
Global ID # T0600177455
Clearwater Group Job Number CB018H

February 29, 2012

229 Tewksbury Avenue ◆ Point Richmond, California 94801 ◆ Telephone: 510-307-9943 ◆ Fax: 510-232-2823

INTRODUCTION

Clearwater Group (Clearwater) is pleased to submit this *Sub-Slab Soil Vapor Sampling Report* (Report) for the property located at 1125 Miller Avenue, Oakland, California (*Site*) (**Figure 1**). This Report was prepared in response to a January 19, 2011, letter from Alameda County Environmental Health Services (ACEH) and an approval June 6, 2011 for step out borings (**Attachment A**). The report presents the results of the April 1, 2011, and December 8 and 9, 2011, sampling events. The work follows the sub-slab soil vapor sampling task specified in the Clearwater *Revised Workplan*, dated January 24, 2011, and a Clearwater June 4, 2011, request to install three step out vapor points and to collect sub-slab soil vapor samples from all points.

SITE HISTORY

A Site History is presented in **Attachment B**. The results of previous sub-slab soil vapor sampling events were presented in Clearwater's January 11, 2007, *Results of Soil Vapor and Soil Boring Sampling Investigation – Risk-Based Corrective Analysis Report*, and Clearwater's December 10, 2010, *Results of Additional Sub-Slab Vapor Investigation Report*.

PURPOSE

This investigation continues an iterative soil vapor sampling evaluation (to measure sub-slab levels of constituents of concern). The evaluation was started at the fuel dispenser location inside the building in 2006, and has stepped out into the living and working spaces of the structure, which is used as a live-work T-Shirt printing (silk screening) facility.

The purpose of the sub-slab soil vapor sampling events on April 1, 2011, and December 8 and 9, 2011, was to close data gaps in determining the distribution of total petroleum hydrocarbons measured as diesel (TPH-d) and gasoline (TPH-g), naphthalene, benzene, toluene, ethylbenzene, and total xylenes (BTEX) in soil vapor under the ground-level concrete slab in the product storage and residential areas of the *Site* building.

Soil vapor point SS-7 was installed within the residence area. Sub-slab soil vapor points SS-8, SS-9, and SS-10 were installed on the property adjacent to the sidewalk outside the building (**Figure 2**). These locations were chosen to close data gaps to the west, southwest, and south-southwest of location SS-3; elevated concentrations of TPH-d, TPH-g and BTEX have been detected in samples from soil vapor point SS-3 since sampling began in 2010 (**Table 1**).

SCOPE OF WORK

The scope of work performed during this phase of work included the following tasks:

- Preparing a Health & Safety Plan.
- Replacing irreparably damaged soil vapor point SS-5 (using the same hole through the concrete slab).
- Installing soil vapor point SS-7 in the residential part of the building, through the ground floor concrete slab.
- Collecting samples from soil vapor points SS-1 through SS-7 on April 1, 2011 (protocols are in **Attachment C**).

- Analyzing the soil vapor samples by EPA Methods TO-15 and TO-17 (Laboratory reports are in **Attachment D**).
- Installing soil vapor points SS-8, SS-9, and SS-10 next to the sidewalk, outside the building footprint, but within the property footprint (field notes in **Attachment E**).
- Collecting samples from soil vapor points SS-1 through SS-10 on December 8 and 9, 2011.
- Analyzing the soil vapor samples by modified EPA Methods TO-15, and TO-17, propane and leak detector compound iso-propyl alcohol (IPA), and natural gas by modified ASTM D-1945.
- Preparing a Site History from the historical uses report.
- Preparation of this report.

PERMITTING

All work was pre-approved by ACEH staff and they were advised of the two sampling events (April and December 2011). There were no permits required by the Alameda County Public Works Agency or the City for the installation of the additional four soil vapor points. Of the four points, one installation was a replacement and the other three were new points.

HEALTH AND SAFETY PLAN

A site-specific Health and Safety Plan (HSP) was generated to cover the field activities during this phase of work. Traffic control was discussed in the HSP. The HSP was signed by the Clearwater project manager and the Clearwater Health & Safety Officer before it was released to the field staff. All field staff reviewed and signed the HSP before the field activities began.

INSTALLATION AND SAMPLING OF SUB-SLAB SOIL VAPOR PROBES

Sub-Slab Soil Vapor Probes SS-1 through SS-7

Sub-slab soil vapor probes were installed at locations SS-1 through SS-6 previous to this investigation (**Figure 2**). Sub-slab soil vapor point SS-7 was installed under the stairway, to the west of the door between the living room and the vestibule (**Figure 2**) on February 10, 2011. The soil vapor probe at location SS-5 had been damaged previously and was replaced on February 10, 2011. After the damaged probe was removed, the borehole was re-drilled and vacuumed to remove debris. A new soil vapor point was re-set in the original borehole.

The design of the sub-slab soil vapor probes used at locations SS-1 through SS-7 is shown in Figure 3. A 0.75-inch diameter hole was drilled through the concrete slab at each location. Stainless-steel chromatography-grade tubing was installed with the lower end protruding through the bottom of the slab. The upper end of the tubing connects, via a ferrule compression fitting, to a vapor-tight shut-off valve (set in the "off" position) and a stainless-steel end cap. Non-shrinking cement was mixed in accordance with the manufacturer's instructions for flow-able cement grout. The wet grout was pushed into place, surrounding the tubing to fill the upper hole flush with the slab surface, to ensure a tight seal above the rubber stopper. A traffic cone was placed over the soil vapor point to prevent accidental damage to the protruding soil vapor point. The sub-slab soil vapor probes were allowed to equilibrate for one week following installation, before their initial sampling in 2010.

Installation of Sub-Slab Soil Vapor Probes SS-8 through SS-10

The soil vapor probes used at locations SS-8, SS-9, and SS-10 are of a different design (Vapor Pin™ by Cox-Colvin & Associates, Inc.) than the previously installed soil vapor points used for S-1 through SS-7 and required no grouting. The use of the new style points was approved via email by Jerry Wickham of Alameda County Environmental Health (**Attachment A**). A hammer drill and 7/8-inch diameter bit was used to penetrate the 6-inch-thick slab. The hole was vacuumed periodically to remove concrete dust until penetration was achieved; then, drilling continued approximately 3 inches into the sub-slab fill to create an open cavity for the soil vapor sampling. The sampling point, encased in silicon tubing, was then hammered into the hole to form an airtight fit (**Figure 4**). Leak testing during the December 2011 sampling event confirmed that the new style soil vapor points were not leaking.

Sub-Slab Soil Vapor Probe Sampling

TO-15 Sample Collection Procedure

The sample points were sampled after the newly installed points had equilibrated for 1 week and no measurable rain had fallen in the previous 72 hours. A schematic of the sample collection apparatus is presented in **Figure 5**. At each sampling point the protective cap was removed from the stainless-steel shut-off valve, and a 167 milliliter-per-minute flow regulator and particulate filter were connected to the shut-off valve using Tygon® tubing. The other end of the regulator was equipped with a "T" fitting to connect the 1-liter sampling SUMMA canister and a separate 1-liter SUMMA canister used for purging.

Before purging and sampling were initiated, a 10-minute minimum vacuum tightness test was performed on the manifold and connections by opening the 1-liter purge canister valve and monitoring the resultant vacuum on the vacuum gauge. The sample shut-off valve on the soil vapor probe side of the sampling manifold was set in the closed position. Purging began after the vacuum had been maintained for 10 minutes, without any noticeable decrease in the vacuum gauge reading. The probe shut-off valve was opened, and one liter of vapor was purged through the flow regulator using the purging SUMMA canister. Sampling was begun by closing the valve to the SUMMA purging canister and opening the valve to the SUMMA sample canister. The flow regulator was used in the sample train to control the flow of soil vapor into the SUMMA canister for sample collection. Limiting the purging and sampling rate to between 100 and 200 milliliters per minute minimizes stripping and aids in preventing ambient air from diluting the soil vapor sample.

The TO-15 sampling continued until the vacuum gauge indicated a pressure of approximately 5 inches of mercury (Hg) remaining (approximately 5 minutes for a 1-liter canister equipped with a 167-milliliter-per-minute flow regulator). The TO-15 samples were labeled and transported to the laboratory, accompanied by the completed chain-of-custody document.

Leak Test for EPA Method TO-15

Leak tests were performed during the collection of the TO-15 samples from point SS-7 on April 1, 2011, and December 9, 2011, by applying 10 to 14 drops of IPA to cotton gauze and placing the gauze near the probe. Immediately upon opening the sampling valve, a shroud was

placed over the sample apparatus to enclose the atmosphere of the borehole and the entire sampling train, including all connections. The shroud consisted of a clear plastic box set up-side down over the sampling apparatus. The shroud was loosely sealed to the surface with a soft gasket. A data-logging photo-ionization detector (PID) was used to monitor the atmosphere inside the shroud during the sample collection by inserting the PID probe tip through a bulk-head fitting on the shroud. The logged PID readings were corrected to parts-per-million-by-volume IPA concentrations and used to evaluate the integrity of the sampling train and to confirm the correction factor of the PID to IPA. The inside shroud PID readings are presented in the field notes (**Attachment E**).

One confirmation sample of the shroud atmosphere, named SS-7(IPA), was collected for both events in a Tedlar bag through the sampling port of the PID. This sample was analyzed for IPA by modified EPA Method TO-15. The shroud atmosphere confirmation samples represented 14% of the total number of the samples collected in April 2011 and 10% of the total number of samples collected in December 2011.

TO-17 Sample Collection Procedure

The TO-15 sampling apparatus was removed before additional samples were collected using modified EPA Method TO-17 VI (**Attachment C**). A schematic of the sorbent tube setup is included as **Figure 6**. Tygon® tubing emanating from the flow regulator was connected to a sorbent tube, and an additional piece of Tygon® tubing was connected between the sorbent tube and a laboratory-provided 50 milliliter (mL) syringe. A sample size of approximately 200 mL was required. The valve was opened, and four strokes of the syringe were used to draw 200 mL of soil vapor through the sorbent tube. The sorbent tube was capped, labeled, and placed on ice within a cooler for transport to the laboratory, accompanied by the completed chain-of-custody document.

LABORATORY ANALYSES

The soil vapor samples were analyzed by Air Toxics LTD. (Air Toxics), of Folsom, California, by modified EPA Methods TO-15 and TO-17. The Air Toxics laboratory has been accredited by the California National Environmental Accreditation Program. The soil vapor samples were analyzed for TPH-g, TPH-d, BTEX, naphthalene, methyl tertiary butyl ether (MTBE), ethyl-t-butyl (ETBE), tert-butyl-alcohol (TBA), tert-amyl methyl ether (TAME), and diisopropyl ether (DIPE). The shroud samples from soil vapor probe SS-7 were analyzed for IPA by modified EPA Method TO-15. The sample was tested for natural gas by modified ASTM D-1945. **Attachment D** presents Air Toxics analytical reports 1104040, 110492A, 110492B, 1112267, 1112268A, 1112268B, and 1112268C.

ANALYTICAL RESULTS

Table 1 presents the laboratory results from the April 1, 2011, and December 8 and 9, 2011, soil vapor sampling events, in addition to the historic results since November, 2006. The results of the April and December, 2011 events are summarized in the table below.

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Results of the April and December, 2011 Soil Vapor Sampling Events

Sample (ID)	Sampling Date	TPH-d (µg/m^3)	Naphthalene (µg/m^3)	TPH-g (µg/m^3)	B (µg/m^3)	T (µg/m^3)	E (µg/m^3)	X (µg/m^3)
ESL Residential		**10,000**	**72**	**10,000**	**84**	**63,000**	**980**	**21,000**
CHHSL		**NE**	**32**	**NE**	**36**	**140,000**	**420**	**320,000**
SS-1	04/01/2011	<5,000	<2.5	540	<3.7	<4.4	<5.0	<5.0
SS-1	12/09/2011	<5,000	<2.5	<160	<2.5	<2.9	<3.4	<3.4
SS-2	04/01/2011	<5,000	<2.5	530	<3.7	<4.4	<5.0	<5.0
SS-2	12/09/2011	<5,000	<2.5	<160	<2.5	<3.0	<3.4	<3.4
SS-3	04/01/2011	8,200	4.2	8,600	3.8	16	110	650
SS-3	12/08/2011	<5,000	3.7	**12,000**	<2.5	3.8	19	119
SS-4	04/01/2011	<5,000	<2.5	520	<3.7	<4.4	<5.0	<5.0
SS-4	12/08/2011	9,500	<2.5	<160	<2.5	<2.9	<3.4	<3.4
SS-5	04/01/2011	<5,000	<2.5	880	<3.7	8.2	<5.0	<5.0
SS-5	12/08/2011	<5,000	<2.5	<160	<2.5	<2.9	<3.4	<3.4
SS-6	04/01/2011	<5,000	<2.5	400	<3.8	<4.5	<5.2	<5.2
SS-6	12/09/2011	<5,000	<2.5	<160	<2.5	<3.0	<3.4	<3.4
SS-7	04/01/2011	<5,000	10	690	<3.8	5.9	<5.2	<5.2
SS-7	12/09/2011	<5,000	<2.5	520	<2.5	<2.9	<3.4	<3.4
SS-8	12/08/2011	<5,000	<2.5	340	<2.6	<3.1	<3.6	<3.6
SS-9	12/08/2011	<5,000	<2.5	310	<2.6	<3.0	<3.5	<3.5
SS-10	12/08/2011	<5,000	<2.5	1,900	**37**	160	37	208

Bold values indicate values above ESLs or CHHSLs.

Notes:

ESL Residential	Residential Environmental Screening Levels (ESLs) from *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Revised May 2008,* Table E-2 Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion concerns
CHHSL	Office of Environmental Health Hazard Assessment *List of California Human Health Screening Levels, Revised September 2010.* Table 3 Soil-Gas-Screening Numbers for Volatile Chemicals Below Buildings Constructed Without Engineered Fill Below Sub-Slab Gravel
NE	Standard Not Established

Soil Vapor Sample Analytical Results from the April 1, 2011 Event

TPH-g was detected in all the samples collected during the April event (SS-1 through SS-7), at concentrations ranging from 400 micrograms per cubic meter (µg/m^3) in SS-6 to 8,600 µg/m^3 in SS-3.

TPH-d was detected only in sample SS-3 at 8,200 µg/m^3.

The compounds benzene (B), ethylbenzene (E), and total xylenes (X) were detected only in sample SS-3, which had concentrations of 3.8 µg/m^3 of benzene, 110 µg/m^3 of ethylbenzene, and 650 µg/m^3 of total xylenes. Toluene was detected in samples SS-3, SS-5, SS-7, and SS-10 at concentrations ranging from 5.9 µg/m^3 (SS-7) to 16 µg/m^3 (SS-3).

Naphthalene was detected in sample SS-3 at 4.2 µg/m^3 and in sample SS-7 at 10 µg/m^3.

Soil Vapor Sample Analytical Results from the December 8 and 9, 2011 Event
During the December 2011 sampling event, TPH-g concentrations were below laboratory detection limits (160 µg/m^3) in samples SS-1, SS-2, SS-4, SS-5, and SS-6. TPH-g was detected at sample points SS-3 (12,000 µg/m^3), SS-7 (520 µg/m^3), SS-8 (340 µg/m^3), SS-9 (310 µg/m^3), and SS-10 (1,900 µg/m^3).

TPH-d was detected only at location SS-4 (9,500 µg/m^3).

Toluene (T), ethylbenzene (E), and total xylenes (X) were detected only in samples SS-3 and SS-10, at concentrations ranging from:

- 3.8 µg/m^3 to 160 µg/m^3 (toluene)
- 19 µg/m^3 to 37 µg/m^3 (ethylbenzene)
- 119 µg/m^3 to 208 µg/m^3 (total xylenes)

Benzene was detected in SS-10 at a level of 37 µg/m^3. Naphthalene was detected in SS-3 at 3.7 µg/m^3; all other samples were non-detect for naphthalene.

Detection of Leak Detection Compound (IPA) in TO-15 Shroud Samples
The Air Toxics reports refer to IPA as 2-propanol (**Attachment C**). Shroud sample SS-7(IPA) contained 93,000 µg/m^3 of 2-propanol (April 1, 2011), and shroud sample SS-7 (IPA) contained 20,000 µg/m^3 of 2-propanol (November 4, 2010) (**Table 1**). These samples confirm the presence and concentration of the leak detector compound within the shroud at the time of sampling. Shroud samples SS-7(IPA) collected on April 1, 2011, and December 9, 2011, were not analyzed for any other compounds.

IPA was detected in sample SS-7 at a concentration of 85 µg/m^3 during the April 1, 2011, sampling event, indicating minor leakage of IPA from the shroud into the sub slab sample. IPA was not detected in SS-7 during the December 9, 2011, sampling event.

DISCUSSION
TPH-g Iso-Concentration Contours for December 8 and 9, 2011 (**Figure 7**) show that the highest concentration of TPH-g occurs near soil vapor sample location SS-3 and that the TPH-g iso-concentration contours are elongated north-south toward soil vapor point SS-10.

The soil vapor analytical results from sample SS-3 indicate a decreasing trend since June 2010 (**Table 1**). The TPH-g concentration at SS-3 has steadily decreased from June 2010 (37,000 µg/m^3 and 30,000 µg/m^3 duplicate sample) until April 1, 2011 (8,600 µg/m^3) at which event the concentration was below the Environmental Screening Limit (ESL) for residential applications of 10,000 µg/m^3. During the December 2011 sampling event, the sample SS-3 concentration of TPH-g was 12,000 µg/m^3, which is above the residential ESL, but below the commercial/industrial ESL of 29,000 µg/m^3. TPH-g has been detected at other sample points but at levels much lower than the residential ESL. The December 2011 sample with the second-highest concentration of TPH-g is SS-10 (1,900 µg/m^3). No other ESLs were exceeded during the December 2011 soil vapor sampling event.

During the December 2011 sampling event, TPH-d was detected in one sample location, SS-4, at a concentration of 9,500 µg/m^3. The TPH-d concentrations at all sample points, except SS-4, were below the laboratory detection limit of 5,000 µg/m^3 (half the ESL of 10,000 µg/m^3). Because only one location had a detectable concentration, an iso-concentration contour map for TPH-d was not prepared.

For the samples collected from SS-3, the comparison of benzene concentration versus time is not conclusive because of the high detection limits for the 2010 events (8.2 µg/m^3 and 100 µg/m^3; **Table 1**) relative to the April 1, 2011, benzene concentration of 3.8 µg/m^3. However, the site-wide benzene concentration trend is decreasing over time, on the basis of the non-detect during the December 2011 sampling event. The sample result from SS-10 for December 2011 is the only other sample result showing a detectable concentration of benzene (37 µg/m^3); this is below the ESL of 84 µg/m^3.

The concentrations of naphthalene, toluene, ethylbenzene, and total xylenes in samples from SS-3 also show a corresponding decrease over time. The 2011 concentrations of these four compounds have consistently been below the residential ESL and continue to decrease over time. SS-10 is the only other recent sample point showing concentrations of all of the BTEX components above the laboratory detection limits. However, the concentrations of the BTEX compounds in sample SS-10 are well below their ESLs.

RECOMMENDATIONS

Clearwater recommends a comprehensive review of site information, including soil, groundwater, and soil vapor data with the regulator (Alameda County) to establish closure criteria, and guidelines to reach those criteria, for this site.

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GROUP
Environmental Services

REPORT LIMITATION

All work performed under this contract was directed by a licensed professional. The work was performed in accordance with generally accepted practices at the time the work was performed and completed in accordance with generally acceptable standards. It should be noted that during the course of normal business practices, Clearwater may purchase or use equipment, services, or products in which Clearwater has a professional or financial interest.

This report was prepared under the supervision of a State of California Professional Geologist, Engineer, or other licensed professional. Statements, conclusions, and recommendations made in this report are based on information provided to Clearwater, observations of existing site conditions, our general knowledge of the site, limited testing of selected soil and groundwater samples, and interpretations of a limited set of data. Clearwater cannot be held responsible for the accuracy of the analytical work performed by others.

Information and interpretation presented herein are for the use of the client. Third parties should rely upon the information and interpretation contained in this document at their own risk. No other warranties, certifications, or representations, either expressed or implied, are made about the information supplied in this report. The service performed by Clearwater has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site.

Sincerely,
CLEARWATER GROUP

Erik Lervaag
Project Manager

James A. Jacobs, PG #4815, CHG #88
Chief Hydrogeologist

PROFESSIONAL GEOLOGIST
JAMES ALAN JACOBS
NO. 88
CERTIFIED HYDROGEOLOGIST
STATE OF CALIFORNIA

Robert L. Nelson, PG #6270, CEG #2087
Senior Geologist

Olivia Jacobs, REA I #3219, CEM #1465
Chief Executive Officer

FIGURES

Figure 1: Site Vicinity Map
Figure 2: Site Plan
Figure 3: Type 1 Sub-Slab Sample Port Schematic
Figure 4: Type 2 Sub-Slab Sample Port Schematic
Figure 5: EPA Method TO-15 Sampling Equipment Schematic
Figure 6: EPA Method TO-17 Sampling Equipment Schematic
Figure 7: Total Petroleum Hydrocarbons as Gasoline in Soil Vapor Iso-Concentration Contour, December 8 and 9, 2011

TABLES

Table 1: Soil Vapor Sample Analytical Results

ATTACHMENTS

Attachment A: Regulator Correspondence (Alameda County Environmental Health Services correspondence dated January 19, 2011, and 6/4/11 to 10/4/11)
Attachment B: Summary of Site Investigation Activities and Reference List
Attachment C: Clearwater Group Standard Operating Procedures:
- Typical Sub-Slab Soil Vapor Diagrams and Photographs
- TO-17 Sorbent Tubes Standard Operating Procedure
- SUMMA Canister Standard Operating Procedure (TO-14 & TO-15)
- Soil Vapor Sampling Procedures Where Total Petroleum Hydrocarbons as Diesel Is a Constituent of Concern

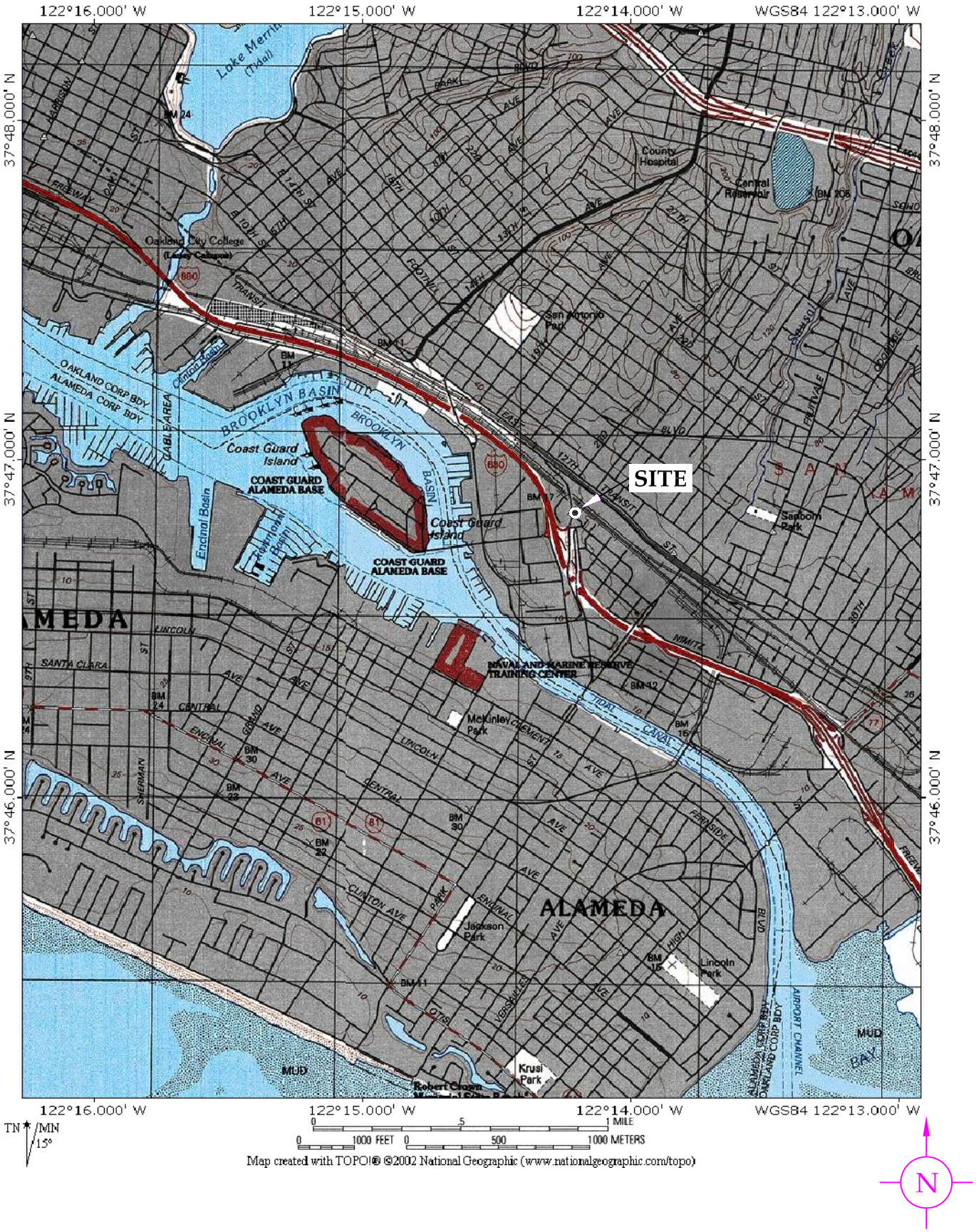
Attachment D: Air Toxics Ltd, Analytical Reports, Work Orders #1104040, 1104092A, 1104092B, 1112267, 1112268A, 1112268B, and 1112268C
Attachment E: Field Notes

DISTRIBUTION

Mr. John Protopappas
Madison Park Financial Corporation
155 Grand Avenue, Suite 1025
Oakland, CA 94612

Alameda County Environmental Health Services
(Sent via electronic upload to the Geotracker website)

FIGURES



Site Vicinity Map

1125 Miller Avenue
Oakland, California

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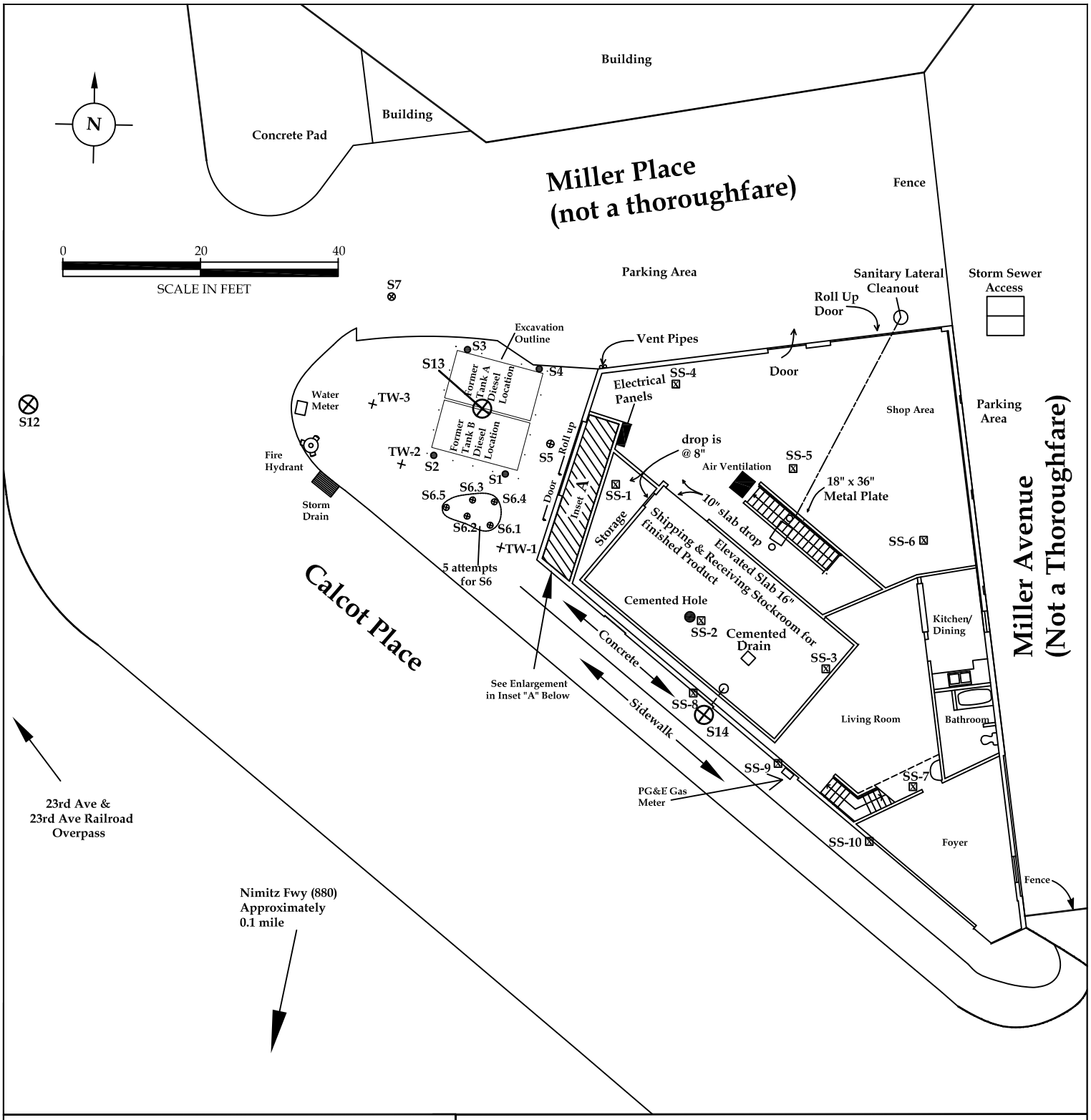
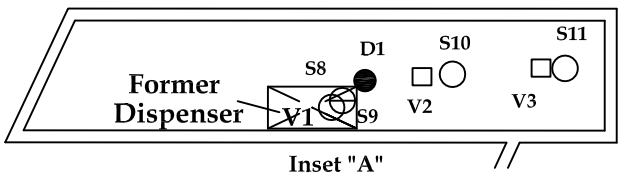
Project No.	Figure Date	Figure
CB018H	7/10	1



LEGEND

⊗ S12-S13	Soil Boring Locations (11/28/11)
⊗–⊙ S14	Slanted Soil Boring Location (11/28/11)
⊠ SS-1-SS-10	Sub-slab Vapor Location (06/17/10, 11/04/10) and 11/10/11)
⊕ S1-S4	Soil Boring Location (12/2/98)
⊕ S5-S8	Soil Boring Location (11/16/05)
● D1	Soil Boring Location (10/24/00)
+ TW-3	Temporary Well (10/24/00)
○ S9-S11	Soil Boring Location (11/15/06)
□ V1-V3	Soil Vapor Location (11/15/06)
. . .	Excavation Outline



Inset "A"

Site Plan

1125 Miller Avenue
Oakland, California

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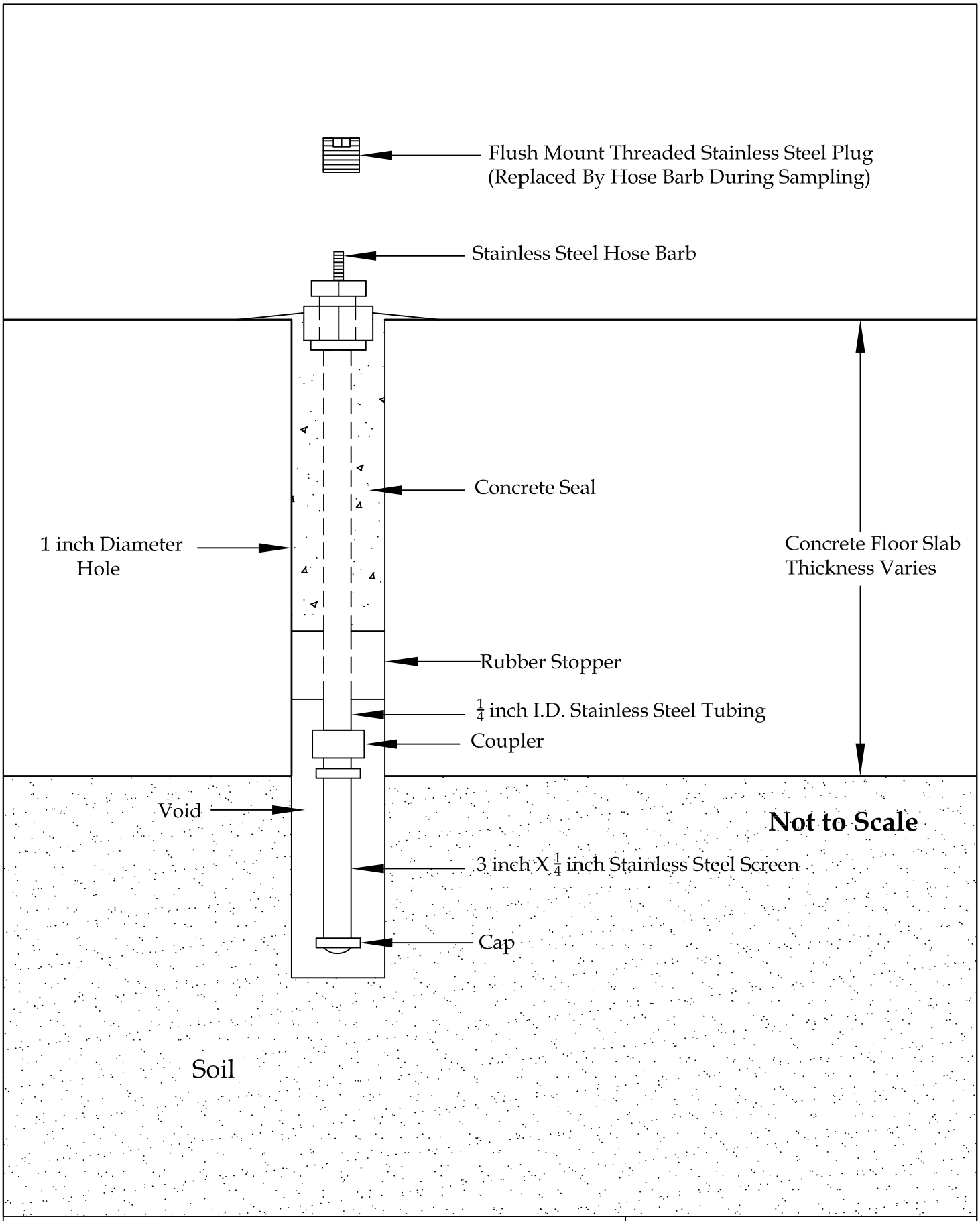
Project No.	Figure Date	Figure
CB018	**2/12**	**2**



Type 1 Sub-Slab Sample Port Schematic

P&D 23rd Avenue Associates LLC
1125 Miller Avenue
Oakland, California

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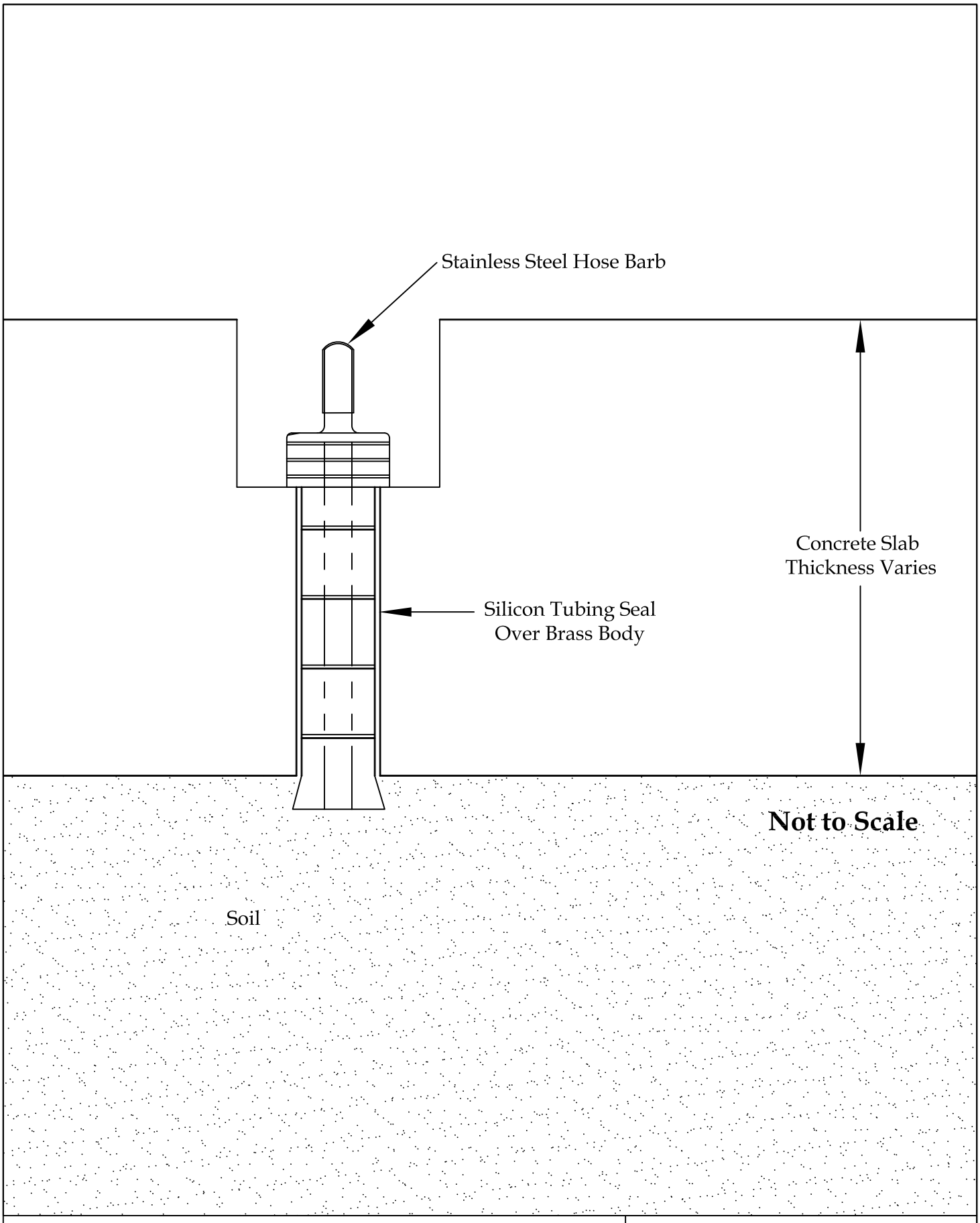
Project No.	Figure Date	Figure
CB018H	**2/12**	**3**



Type 2 Sub-Slab Sample Port Schematic

P&D 23rd Avenue Associates LLC
1125 Miller Avenue
Oakland, California

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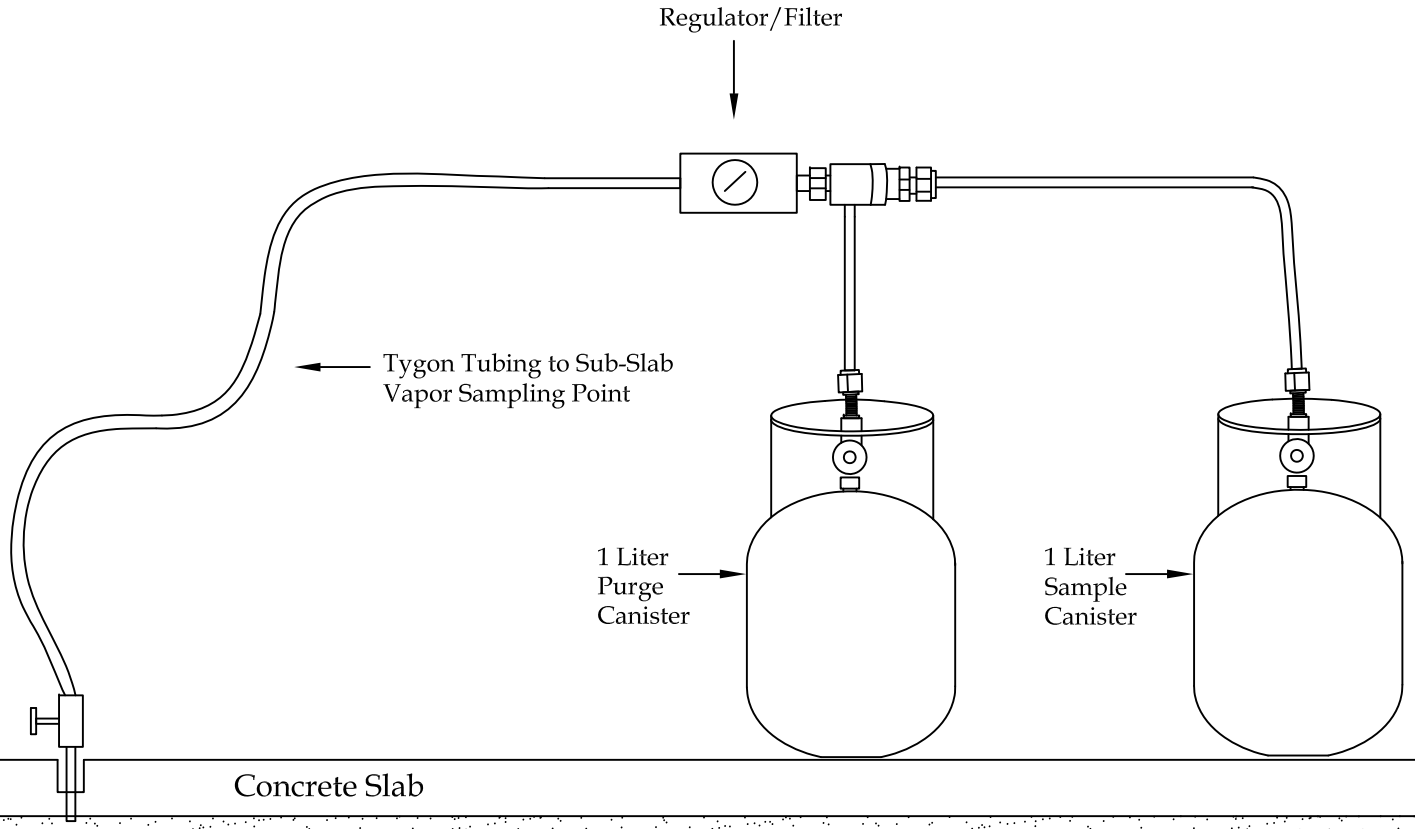
Project No.	Figure Date	Figure
CB018H	**2/12**	**4**

Not to Scale



EPA Method TO-15
Sampling Equipment Schematic
1125 Miller Avenue
Oakland Ca.

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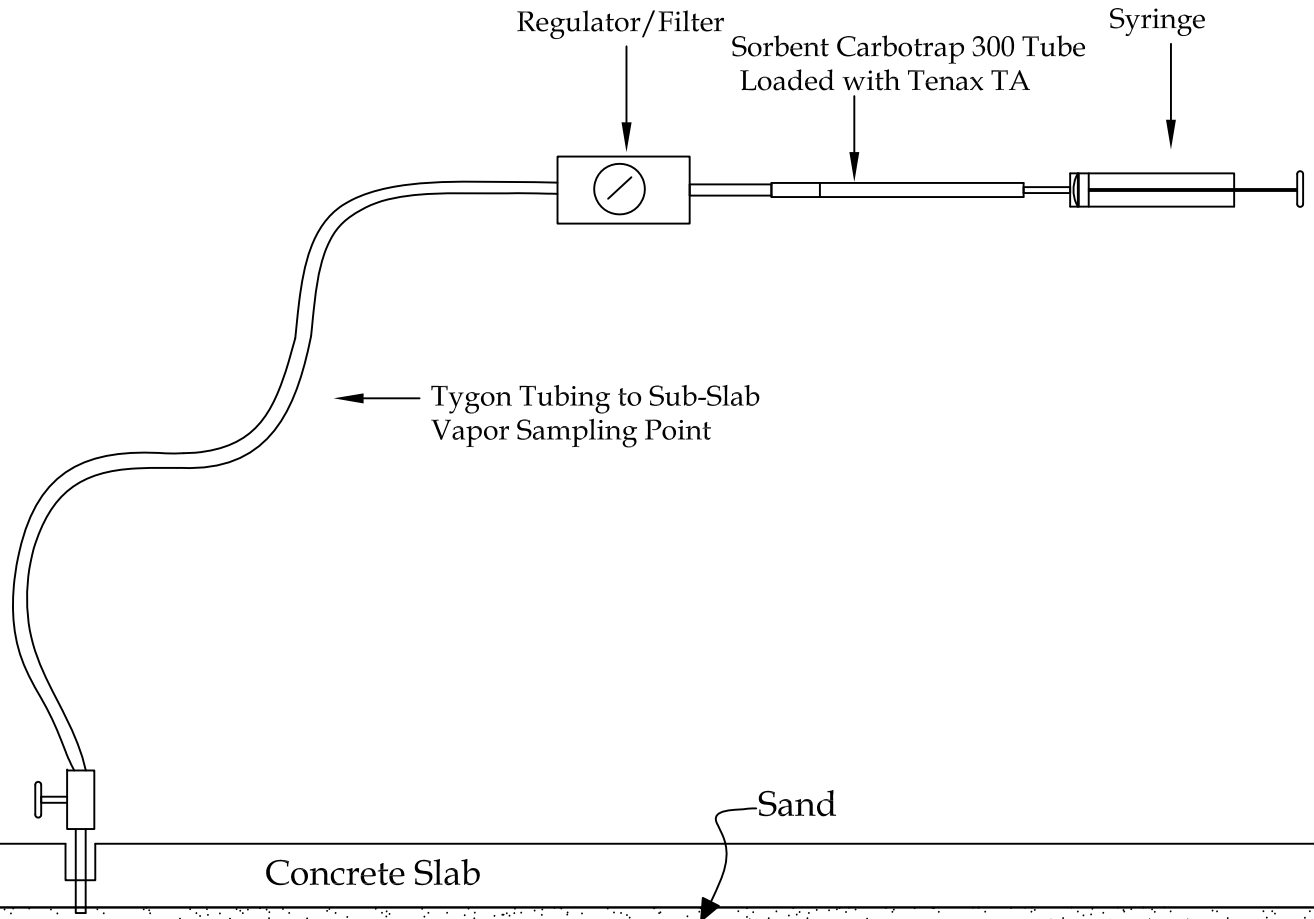
Project No.	Figure Date	Figure
CB018H	**02/12**	**5**

Not to Scale



EPA Method TO-17
Sampling Equipment Schematic
1125 Miller Avenue
Oakland Ca.

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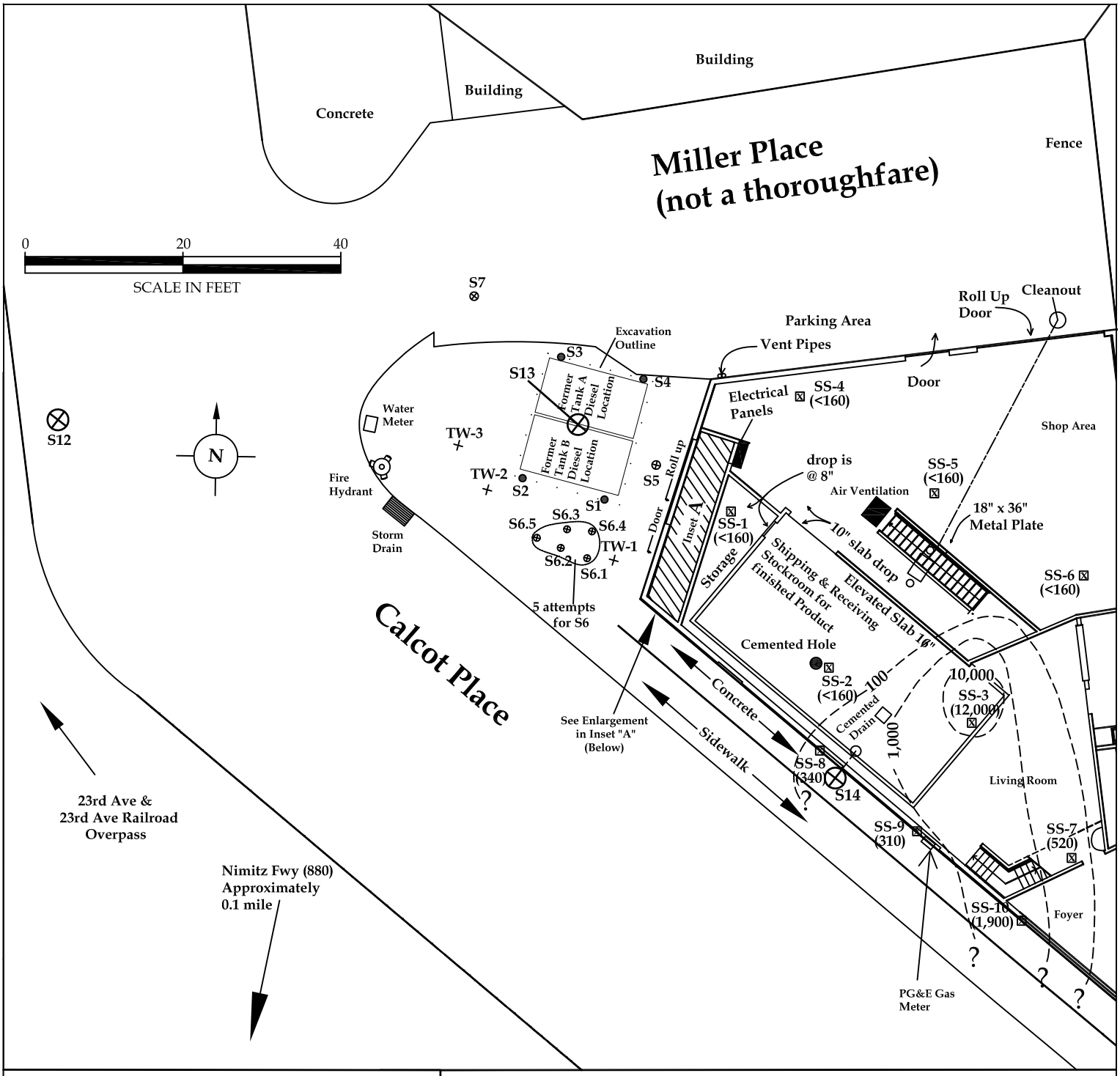
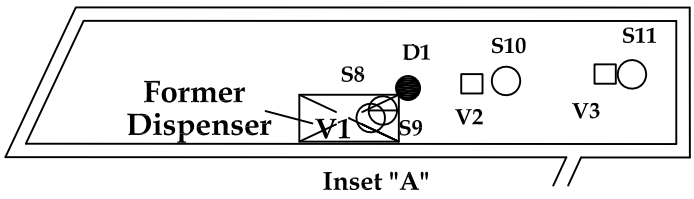
Project No.	Figure Date	Figure
CB018H	**02/12**	**6**



LEGEND

S12-S14	Soil Boring Locations (11/28/11)
S14	Slanted Soil Boring Location (11/28/11)
SS-1-SS-10	Sub-slab Vapor Location (06/17/10, 11/04/10) and 11/10/11)
S1-S4	Soil Boring Location (12/2/98)
S5-S8	Soil Boring Location (11/16/05)
D1	Soil Boring Location (10/24/00)
TW-3	Temporary Well (10/24/00)
S9-S11	Soil Boring Location (11/15/06)
V1-V3	Soil Vapor Location (11/15/06)
	Inferred TPH-g Iso Concentration Contour (In Micrograms Per Liter)
TPH-g	Total Petroleum Hydrocarbons as Gasoline
SS-7	Sampling Location of TPH-g
(520)	TPH-g Concentration in µg/L (Micrograms Per Liter)



Inset "A"

Total Petroleum Hydrocarbons as Gasoline in Soil Vapor Iso-Concentration Contour
December 8 and 9, 2011

1125 Miller Avenue
Oakland, California

CLEARWATER GROUP

Project No.	Figure Date	Figure
CB018	2/12	7

TABLE

TABLE 1
Soil Vapor Sample Analytical Results
P & D 23rd Avenue Associates LLC
1125 Miller Avenue, Oakland, CA
Clearwater Project No. CB018H

Sample (ID)	Sampling Date	Analytical Method	TPH-d (µg/m³)	Naphthalene (µg/m³)	1-Methyl naphthalene (µg/m³)	2-Methyl naphthalene (µg/m³)	TPH-g (µg/m³)	B (µg/m³)	T (µg/m³)	E (µg/m³)	X [E] (µg/m³)	MTBE (µg/m³)	TBA (µg/m³)	ETBE TAME DIPE (µg/m³)	2-Propanol (µg/m³)	Propane
CHHSLs, Commercial [I]			**NE**	**32**	**NE**	**NE**	**NE**	**36**	**140,000**	**420**	**320,000**	**4**	**NE**	**NE**	**NE**	**NE**
ESLs, Lowest Residential [A]			**10,000**	**72**	**NE**	**NE**	**10,000**	**84**	**63,000**	**980**	**21,000**	**9,400**	**NE**	**NE**	**NE**	**NE**
V2.2 Suma	11/15/2006	TO-15	--	--	--	--	--	41	43	<7.9	28.4	--	--	--	--	--
V2.2 Suma Duplicate	11/15/2006	TO-15	--	--	--	--	--	42	46	<7.9	29.8	--	--	--	--	--
V2.4 Suma	11/15/2006	TO-15	--	--	--	--	--	<21	<28	<24	<28	--	--	--	--	--
V1.4 1L	11/15/2006	TO-17	**>150,000** [F]	--	--	--	--	--	--	--	--	--	--	--	--	--
V1.4 4L	11/15/2006	NIOSH 1550	**580,000**	--	--	--	--	--	--	--	--	--	--	--	--	--
V1.4 4L Duplicate	11/15/2006	NIOSH 1550	**600,000**	--	--	--	--	--	--	--	--	--	--	--	--	--
V2.2 1L	11/15/2006	NIOSH 1550	**710,000**	--	--	--	--	--	--	--	--	--	--	--	--	--
V2.2 4L	11/15/2006	NIOSH 1550	**180,000**	--	--	--	--	--	--	--	--	--	--	--	--	--
V2.4 1L	11/15/2006	NIOSH 1550	**280,000**	--	--	--	--	--	--	--	--	--	--	--	--	--
V2.4 4L	11/15/2006	NIOSH 1550	**700,000**	--	--	--	--	--	--	--	--	--	--	--	--	--
V3.4 1L	11/15/2006	NIOSH 1550	**7,300,000**	--	--	--	--	--	--	--	--	--	--	--	--	--
V3.4 4L	11/15/2006	NIOSH 1550	**570,000**	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-1	06/17/2010	8260B/ 8015M [C]	<50,000	<100	--	--	<10,000	<100	<200	<100	<200	<100	<1,000	<100	--	--
SS-1	11/04/2010	TO-17/TO-15 [B]	<5,000	<2.5	<2.5	<2.5	<240	<3.8	<4.5	<5.1	<5.1	<4.3	<14	<20 [D]	<12	--
SS-1	04/01/2011	TO-17/TO-15 [B]	<5,000	<2.5	<2.5	<2.5	540	<3.7	<4.4	<5.0	<5.0	<4.2	<14	<19 [D]	<11	--
SS-1	12/09/2011	TO-17/TO-15 [B]	<5,000	<2.5	<2.5	<2.5	<160	<2.5	<2.9	<3.4	<3.4	<2.8	<9.4	<13	<7.6	--
SS-2	06/17/2010	8260B/ 8015M [C]	<50,000	<100	--	--	<10,000	<100	<200	<100	<200	<100	<1,000	<100	--	--
SS-2	11/04/2010	TO-17/TO-15 [B]	<5,000	<2.5	<2.5	<2.5	<240	<3.8	<4.5	<5.2	5.3	<4.3	<14	<20 [D]	<12	--
SS-2	04/01/2011	TO-17/TO-15 [B]	<5,000	<2.5	<2.5	<2.5	530	<3.7	<4.4	<5.0	<5.0	<4.2	<14	<19 [D]	<11	--
SS-2	12/09/2011	TO-17/TO-15 [B]	<5,000	<2.5	<2.5	<2.5	<160	<2.5	<3.0	<3.4	<3.4	<2.8	<9.6	<13	<7.8	--
SS-3	06/17/2010	8260B/ 8015M [C]	<50,000	<100	--	--	**37,000**	<100	2,600	**2,000**	6,050	<100	<1,000	<100	--	--
SS-3 Duplicate	06/17/2010	8260B/ 8015M [C]	<50,000	<100	--	--	**30,000**	<100	2,100	**1,600**	4,990	<100	<1,000	<100	--	--
SS-3	11/04/2010	TO-17/TO-15 [B]	5,800	8.0	24	36	**13,000**	<8.2	60	560	2,940	<9.2	<31	<43 [D]	<25	--
SS-3	11/04/2010	Modified ASTM D-1945	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0051%
SS-3	04/01/2011	TO-17/TO-15 [B]	8,200	4.2	7.0	<2.5	8,600	3.8	16	110	650	<3.8	<13	<18 [D]	<10	--
SS-3	12/08/2011	TO-17/TO-15 [B]	<5,000	3.7	8.0	<2.5	**12,000**	<2.5	3.8	19	119	<2.8	<9.6	<13	<7.8	--
SS-3	12/08/2011	Modified ASTM D-1945	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0016%
SS-4	06/17/2010	8260B/ 8015M [C]	<50,000	<100	--	--	<10,000	<100	<200	<100	<200	<100	<1,000	<100	--	--
SS-4	11/04/2010	TO-17/TO-15 [B]	<5,000	<2.5	<2.5	<2.5	<240	<3.8	<4.5	<5.2	<5.2	<4.3	<14	<20 [D]	<12	--
SS-4	04/01/2011	TO-17/TO-15 [B]	<5,000	<2.5	<2.5	<2.5	520	<3.7	<4.4	<5.0	<5.0	<4.2	<14	<19 [D]	<11	--
SS-4	12/08/2011	TO-17/TO-15 [B]	9,500 [G]	<2.5	<2.5	<2.5	<160	<2.5	<2.9	<3.4	<3.4	<2.8	<9.4	<13	<7.6	--
SS-5	06/17/2010	8260B/ 8015M [C]	<50,000	<100	--	--	<10,000	<100	<200	<100	<200	<100	<1,000	<100	--	--
SS-5	11/04/2010	TO-17/TO-15 [B]	<5,000	<2.5	<2.5	<2.5	<260	<4.0	<4.7	<5.5	<5.5	<4.5	<15	<21 [D]	<12	--
SS-5 (IPA)	11/04/2010	Modified TO-15 GC/MS	--	--	--	--	--	--	--	--	--	--	--	--	81,000	--

TABLE 1
Soil Vapor Sample Analytical Results
P & D 23rd Avenue Associates LLC
1125 Miller Avenue, Oakland, CA
Clearwater Project No. CB018H

Sample (ID)	Sampling Date	Analytical Method	TPH-d (µg/m^3)	Naphthalene (µg/m^3)	1-Methyl naphthalene (µg/m^3)	2-Methyl naphthalene (µg/m^3)	TPH-g (µg/m^3)	B (µg/m^3)	T (µg/m^3)	E (µg/m^3)	X [E] (µg/m^3)	MTBE (µg/m^3)	TBA (µg/m^3)	ETBE TAME DIPE (µg/m^3)	2-Propanol (µg/m^3)	Propane
CHHSLs, Commercial [I]			**NE**	**32**	**NE**	**NE**	**NE**	**36**	**140,000**	**420**	**320,000**	**4**	**NE**	**NE**	**NE**	**NE**
ESLs, Lowest Residential [A]			**10,000**	**72**	**NE**	**NE**	**10,000**	**84**	**63,000**	**980**	**21,000**	**9,400**	**NE**	**NE**	**NE**	**NE**
SS-5	04/01/2011	TO-17/TO-15[B]	<5,000	<2.5	<2.5	<2.5	880	<3.7	8.2	<5.0	<5.0	<4.2	<14	<19 [D]	<11	--
SS-5	12/08/2011	TO-15	<5,000	<2.5	<2.5	<2.5	<160	<2.5	<2.9	<3.4	<3.4	<2.8	<9.4	<13	<7.6	--
SS-6	06/17/2010	8260B/ 8015M [C]	<50,000	<100	--	--	<10,000	<100	<200	<100	<200	<100	<1,000	<100	--	--
SS-6	11/04/2010	TO-17/TO-15[A]	<5,000	4.6	<2.5	4.3	<250	<3.9	<4.6	<5.3	<5.3	<4.4	<15	<20 [D]	<12	--
SS-6	04/01/2011	TO-17/TO-15[B]	<5,000	<2.5	<2.5	<2.5	400	<3.8	<4.5	<5.2	<5.2	<4.3	<14	<20 [D]	<12	--
SS-6	12/09/2011	TO-17/TO-15[B]	<5,000	<2.5	<2.5	<2.5	<160	<2.5	<3.0	<3.4	<3.4	<2.8	<9.6	<13	<7.8	--
SS-7	04/01/2011	TO-17/TO-15[B]	<5,000	10	9.0	10	690	<3.8	5.9	<5.2	<5.2	<4.3	<14	<20 [D]	85	--
SS-7 (IPA)	04/01/2011	TO-15	--	--	--	--	--	--	--	--	--	--	--	--	93,000	--
SS-7	12/09/2011	TO-17/TO-15[B]	<5,000	<2.5	<2.5	<2.5	520 [F]	<2.5	<2.9	<3.4	<3.4	<2.8	<9.4	<13	<7.6	--
SS-7 (IPA)	12/09/2011	TO-15	--	--	--	--	--	--	--	--	--	--	--	--	20,000 [H]	--
SS-8	12/08/2011	TO-17/TO-15[B]	<5,000	<2.5	<2.5	<2.5	340	<2.6	<3.1	<3.6	<3.6	<3.0	<9.9	<14	<8.1	--
SS-9	12/08/2011	TO-17/TO-15[B]	<5,000	<2.5	<2.5	<2.5	310	<2.6	<3.0	<3.5	<3.5	<2.9	<9.8	<13	<7.9	--
SS-10	12/08/2011	TO-17/TO-15[B]	<5,000	<2.5	<2.5	<2.5	1,900	37	160	37	208	<2.7	<9.2	<13	<7.5	--

Notes:

ESL	Environmental Screening Limit
(µg/m^3)	Micrograms per cubic meter
TO-15	Samples analyzed using modified EPA method TO-15 for soil vapor collected in specially prepared canisters and analyzed by gas chromatography/mass spectrometry (GC/MS).
TO-17	Samples analyzed using modified EPA method TO-17 for soil vapor samples collected using multi-bed sorbent tubes and analyzed by GC/MS.
NIOSH 1550	Alternative analytical method used for saturated sorbent tubes using chemical extraction (carbon disulfide) and analyzed using gas chromatography/flame ionization detector
ASTM D-1945	Sample analyzed using modified ASTM D-1945
TPH-d	Total petroleum hydrocarbons detected within the diesel range of C10-C28
TPH-g	Total petroleum hydrocarbons detected within the gasoline range of C6-C12
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total
MTBE	Methyl-t-butyl ether
ETBE	Ethyl-t-
TAME	Tert-amyl methyl ether
DIPE	Diisopropyl ether
TBA	tert-Butanol
2-Propanol	2-Propanol is also known as Isopropyl alcohol (IPA)
--	Not Analyzed
<#	Contamination in the sample was below method reporting limits
bold	Contamination in the sample exceeded environmental screening limits
NE	Standard Not Established
(ID)	Identification
CHHSL	California Human Health Screening Leve

TABLE 1
Soil Vapor Sample Analytical Results
P & D 23rd Avenue Associates LLC
1125 Miller Avenue, Oakland, CA
Clearwater Project No. CB018H

Sample (ID)	Sampling Date	Analytical Method	TPH-d (µg/m^3)	Naphthalene (µg/m^3)	1-Methyl naphthalene (µg/m^3)	2-Methyl naphthalene (µg/m^3)	TPH-g (µg/m^3)	B (µg/m^3)	T (µg/m^3)	E (µg/m^3)	X [E] (µg/m^3)	MTBE (µg/m^3)	TBA (µg/m^3)	ETBE TAME DIPE (µg/m^3)	2-Propanol (µg/m^3)	Propane
CHHSLs, Commercial [I]			**NE**	**32**	**NE**	**NE**	**NE**	**36**	**140,000**	**420**	**320,000**	**4**	**NE**	**NE**	**NE**	**NE**
ESLs, Lowest Residential [A]			**10,000**	**72**	**NE**	**NE**	**10,000**	**84**	**63,000**	**980**	**21,000**	**9,400**	**NE**	**NE**	**NE**	**NE**

Footnote A	Environmental Screening Levels (ESLs), Lowest Residential, from *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Revised by May 2008,* Table E-2 Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion concerns available from www.waterboards.ca.gov/sanfranciscobay/water_issues/available_documents/ESL_May_2008.pdf
Footnote B	TPH-d, Naphthalene, 1-Methylnaphthalene, 2-Methylnaphthalene by Modified TO-17 VI; TPH-g, B, T, E, X, MTBE, TBA, ETBE, TAME, DIPE by Modified TO-15.
Footnote C	BTEX, Naphthalene, Oxygenates and TPH-g by EPA method 8260B; TPH-d by EPA method 8015n
Footnote D	Analyte is listed as isopropyl ether, not diisopropyl ether
Footnote E	Xylene is reported as the sum of m,p-Xylene and o-Xylene
Footnote F	Laboratory notes: TPH gasoline was detected at a concentration less than 5 times the reporting limit. Because the preceding sample contained high concentration of TPH-g, the result for TPH-g in this sample may be biase high for possible carry-over. A re-analysis of this sample was not possible due to insufficient sample volume
Footnote G	Laboratory Notes: The TPH pattern did not resemble that of diesel fuel. The hydrocarbons were distributed in the lighter carbon range of diesel
Footnote H	Laboratory Notes: Dilution was performed on this sample due to the presence of high level target species
Footnote I	CHHSLs - *California Human Health Screening Levels, Revised September 2010.* Table 3 Soil Gas Screening Numbers for Volatile Chemicals Below Buildings Constructed Without Engineered Fill Below Sub-Slab Gravel
V2.2 Summa (200 mL/min*30 min)	Vapor sample collected at 2 feet below ground surface using 6-liter Summa canister at a flow rate of 200 mL per minute for 30 minutes.
V2.4 Summa (200 mL/min*30 min)	Vapor sample collected at 4 feet below ground surface using 6-liter Summa canister at a flow rate of 200 mL per minute for 30 minutes.
V1.4 1L	Vapor sample collected at 4 feet below ground surface using TO-17 Carbotrap 300 tube at a flow rate of 66.7 mL per minute for 15 minutes. Sample was analyzed using modified EPA method TO-17.
V1.4 4L	Vapor sample collected at 4 feet below ground surface using TO-17 Carbotrap 300 tube at a flow rate of 133.3 mL per minute for 30 minutes.
> ## (S)	Sample results are flagged as greater than saturated peak for analyte.
1L	Sample flow rate equal to 66.7 milliliters per minute for 15 minutes.
4L	Sample flow rate equal to 133.3 milliliters per minute for 30 minutes.

ATTACHMENTS

ATTACHMENT A

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

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

January 19, 2011

Mr. John Protopappas
P&D 23rd Avenue Associates LLC
P.O. Box 687
Oakland, CA 94604
(Sent via E-mail to: John@MPFCorp.com)

Subject: Work Plan for Fuel Leak Case No. RO0000294 and GeoTracker Global ID T0600177455, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA 94601

Dear Mr. Protopappas:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the most recently submitted document entitled, *"Historic Property Uses Report,"* dated December 20, 2010, *"Results of Additional Sub-Slab Vapor Investigation Report,"* dated December 10, 2010, and *"Site Characterization Workplan,"* dated December 20, 2010 (Work Plan). The results from these reports and Work Plan were discussed during a meeting conducted on January 19, 2011 between Mr. John Protopappas of Madison Park Financial Corporation, James Jacobs of Clearwater Group, Erik Lervaag of Clearwater Group, Olivia Jacobs of Clearwater Group, and Jerry Wickham of ACEH.

Based on our review of the documents and the results of the meeting, we request that you prepare a Revised Work Plan that incorporates the revisions discussed during our January 19, 2011 meeting. These revisions are briefly summarized in the technical comments below.

TECHNICAL COMMENTS

1. **Soil Borings.** Three soil borings are to be advanced for collection of soil and groundwater samples at the locations discussed during our January 19, 2011 meeting; one near or within the former tank pit, one west of the tank pit, and one west of SS-3.

2. **Sub-slab Vapor Samples.** One additional sub-slab vapor probe is to be installed within the first-floor living space to assess whether a source in addition to the former diesel USTs may exist in this area. Vapor samples from the additional vapor probe and existing probes are to be analyzed for volatile organic compounds and total petroleum hydrocarbons as gasoline using EPA Method TO-15.

3. **Removal of Product Lines and Vent Lines.** In the Work Plan requested below, please include plans to remove the product lines from the former dispenser and vent lines. Please propose screening criteria for removing contaminated soil observed during the line removal and collecting confirmation soil samples.

TECHNICAL REPORT REQUEST

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

- **March 18, 2011** – Revised Work Plan

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o=Alameda County Environmental Health, ou, email=jerry.wickham@acgov.org, c=US
Date: 2011.01.19 15:56:43 -08'00'

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)

Erik Lervaag, Clearwater Group, 229 Tewksbury Avenue, Pt. Richmond, CA 94801 (*Sent via E-mail to: ELervaag@clearwatergroup.com*)

Olivia Jacobs, Clearwater Group, 229 Tewksbury Avenue, Pt. Richmond, CA 94801 (*Sent via E-mail to: OJacobs@clearwatergroup.com*)

James Jacobs, Clearwater Group, 229 Tewksbury Avenue, Pt. Richmond, CA 94801 (*Sent via E-mail to: augerpro@sbcglobal.net*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker, File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

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

ELECTRONIC SUBMITTAL OF REPORTS

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

PERJURY STATEMENT

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

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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

UNDERGROUND STORAGE TANK CLEANUP FUND

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

AGENCY OVERSIGHT

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

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

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

REQUIREMENTS

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

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i. Send an e-mail to dehloptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      i. Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

Erik Lervaag

From: Wickham, Jerry, Env. Health <jerry.wickham@acgov.org>
Sent: Tuesday, October 04, 2011 9:10 AM
To: Erik Lervaag; Olivia Jacobs
Cc: Rob Nelson; jimjacobs@ebsinfo.com; russell@dreisbach.com; John@MPFCorp.com
Subject: RE: RO0000294, 1125 Miller Avenue, Oakland, CA

Erik,

Provided that leak testing is performed using a shroud that covers the borehole and sampling train during sampling, I have no objection to the use of the alternate sub-slab probe proposed below.

Regards,
Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
phone: 510-567-6791
jerry.wickham@acgov.org

-----Original Message-----
From: Erik Lervaag [mailto:ELervaag@clearwatergroup.com]
Sent: Monday, October 03, 2011 2:05 PM
To: Wickham, Jerry, Env. Health; Olivia Jacobs
Cc: Rob Nelson; jimjacobs@ebsinfo.com; russell@dreisbach.com; John@MPFCorp.com
Subject: RE: RO0000294, 1125 Miller Avenue, Oakland, CA

Jerry,

Thank you for your quick response and the extension to the reporting schedule. Additionally, we would like your approval to switch from our current soil vapor sampling point (an AMS brand point that requires grouting) to a new point (from Cox-Colvin) called the Vapor Pin that doesn't require grouting and the corresponding waiting period for the grout to dry. Information on the new points can be found at http://www.coxcolvin.com/VaporPin.php . The new style sampling point allows for same day sampling, thereby reducing field costs. If you approve of this change or require further information please feel free to contact me. Thank you for your attention to this matter.

Regards,
Erik Lervaag

-----Original Message-----
From: Wickham, Jerry, Env. Health [mailto:jerry.wickham@acgov.org]
Sent: Monday, October 03, 2011 10:56 AM
To: Olivia Jacobs
Cc: Rob Nelson; jimjacobs@ebsinfo.com; russell@dreisbach.com; John@MPFCorp.com; Erik Lervaag
Subject: RE: RO0000294, 1125 Miller Avenue, Oakland, CA

Olivia,

Based upon your request, the reporting schedule for case RO294 is extended to January 12, 2012.

Regards,
Jerry Wickham
Alameda County Environmental Health

From: Olivia Jacobs [OJacobs@clearwatergroup.com]
Sent: Monday, October 03, 2011 10:35 AM
To: Wickham, Jerry, Env. Health
Cc: Rob Nelson; jimjacobs@ebsinfo.com; russell@dreisbach.com; John@MPFCorp.com; Erik Lervaag
Subject: FW: RO0000294, 1125 Miller Avenue, Oakland, CA

Apologetically, we are running behind, for various reasons.

I'll get the permits in for the vapor sampling and the soil excavation by the roll up door, this week. We appreciate your work approvals and previous extensions for this project. We would appreciate a renewed extension; if we expedite the work, we should be able to produce the report in this quarter.

Thank you,

Olivia Jacobs

-----Original Message-----
From: Olivia Jacobs
Sent: Monday, June 06, 2011 3:40 PM
To: 'Wickham, Jerry, Env. Health'
Cc: Erik Lervaag; 'James Jacobs'; Rob Nelson
Subject: RE: RO0000294, 1125 Miller Avenue, Oakland, CA

Thanks very much.

-----Original Message-----
From: Wickham, Jerry, Env. Health [mailto:jerry.wickham@acgov.org]
Sent: Monday, June 06, 2011 3:39 PM
To: Olivia Jacobs
Cc: Rob Nelson; Jim Jacobs1; russell@dreisbach.com; John@MPFCorp.com; Erik Lervaag
Subject: RE: RO0000294, 1125 Miller Avenue, Oakland, CA

I have reviewed the preliminary soil vapor sampling results and proposals included with your message. In response:

1) I have no objection to the collection of soil vapor samples from the additional locations proposed.
2) In order to incorporate the additional data, the schedule for reporting results is extended to October 3, 2011.
3) The schedule for reporting of the pump island excavation and vent line removal is also extended to October 3, 2011.

Regards,
Jerry Wickham
Alameda County Environmental Health

From: Olivia Jacobs [OJacobs@clearwatergroup.com]
Sent: Saturday, June 04, 2011 1:50 PM

To: Wickham, Jerry, Env. Health
Cc: Rob Nelson; James Jacobs; russell@dreisbach.com; John@MPFCorp.com; Erik Lervaag
Subject: RO0000294, 1125 Miller Avenue, Oakland, CA

Please see attached soil vapor results from Clearwater's April, 2011 sampling event at the above referenced site.

The new results do not make the previous data much clearer.

We now have TPH-gas in soil vapor detected at all three soil vapor points, in a line, along the property boundary of Calcot Place, inside the building. With your permission, Clearwater requests to install one to three vapor points in the north sidewalk of Calcot Place, adjacent to the structure of the site (with one in a safely proximal position to the inactive 3" gas supply line to the site) in order to provide data points in the southwesterly, southerly and south-southeasterly direction from the data point SS-3 which has consistently elevated soil vapor values.

Please note that we do now have values in points which lie in the westerly, northwesterly, northerly, northeasterly, and east-southeasterly positions relative to the SS-3 vapor point. However, these points cover only about 240 degrees relative to SS-3, which has the highest values. This leaves 120 degrees relative to SS-3 from which there is an unknown affect.

At this point, it would be inefficient to produce a soil vapor report with the data in hand, as the contours can not be closed; extent is unknown and source is also unknown. It would be more efficient to obtain data in the unknown area, at this point, so that conclusions about source and extent can be better answered.

Which leads in to the second request - a request for extension of the July 2, 2011 reporting date. While this date was a very generous length of time for the approved work to be performed, with the data in hand, a cost efficiency could be accomplished if more data were collected prior to report production.

We will engage on the pump island excavation and vent pipe removal pending USTCF budget receipt. We will need an extension for this part of the project as well.

Thank you for your consideration of these three requests. Please note that Rob Nelson, P.G., will be managing this project going forward, as Erik Lervaag needed to fully focus on a project which took an expected turn.

Thank you.

Olivia Jacobs
Clearwater Group
229 Tewksbury Avenue
Point Richmond, CA 94801
Tel: (510) 307-9943 x 223
Fax: (510) 232-2823
Cell: (510) 590-1099

[cid:image001.png@01CC22BE.4DACC280]
www.clearwatergroup.com<http://www.clearwatergroup.com/>

ATTACHMENT B

SUMMARY OF SITE INVESTIGATION ACTIVITIES AND REFERENCES LIST

P&D 23rd Avenue Associates, LLC
1125 Miller Avenue
Oakland, California
ACEH Site Number RO#0000294
Clearwater Group Project Number CB018

Site Location

The P&D 23rd Avenue Associates, LLC property (*site*), an underground storage tank (UST) fuel release *site*, is located at 1125 Miller Avenue, in the City of Oakland, County of Alameda, California. The *site* is improved with a two-story structure constructed on a single slab on grade foundation, which is currently in use as a "work-live" building by a graphic artist who operates a t-shirt production workshop and lives in an apartment located adjacent to and above the work space. The United States Geological Survey Oakland East Quadrangle Map shows the *site* to be located in Section 6, Township 2 south, Range 3 west of the Mount Diablo Base and Meridian (USGS, 1980).

Miller Avenue bounds the *site* to the east, and Miller Place bounds the *site* to the north. Calcot Place defines the property to the southwest. A "work-live" apartment building is located across Miller Place to the northwest, north, and northeast, and a fenced parking and storage lot abuts the *site* to the northeast, east, and southeast. The main line of the Union Pacific Railroad is located to the north, beyond the "work-live" apartments and behind a chain-link fence. The 23rd Avenue railroad overcrossing ramp structure lies across Calcot Place to the west.

Site History

1870 to 1998 – History before the UST removal

Historical records for the *site* and neighboring properties as far back as the 1870's were obtained from local resources. Between 1870 and 1998 the *site* and neighboring properties have had many uses, including industrial, commercial, and most recently, residential. The former north and east parcel boundaries of the 1125 Miller Avenue *site* were established in 1903. In 1963, after part of the block was taken by the City of Oakland by "eminent domain," the current hypotenuse property boundary was formed and defined by Calcot Place.

- Between 1878 and 1903, the current property was part of 25th Avenue and a block defined by Park Avenue (now 23rd Avenue), East 10th Street, 26th Avenue, 25th Avenue, and the Central Pacific Railroad Company railroad bed. No information, except that about ownership, regarding specific use of the *site* is reasonably ascertainable from the locally available historical data record for this time period. Data were reported in the December 1, 2010 "Historical Property Uses" Report produced by Clearwater Group (Clearwater).
- Between 1924 and 1928 (after subdivision), the west half of the northern half of the current *site* (Parcels 1 and 2) was developed with a commercial/industrial structure.
- Between 1928 (first phone directory listing) and 1946, the *site* (Parcels 1 and 2) was used by Bay Cities Forge Company, for blacksmithing and general metal "forgings," as stated in the Polk's Telephone Directory (listing and advertisement). The interior work area of the Forge (west half of Parcels 1 and 2) aligns with five refusals at soil boring S6 as well as the refusal at TW1 shown in **Figure A**. The unimproved backyard (east half of Parcels

1 and 2) was improved, by 1950, with a brick incinerator (at the current location of the workshop and the kitchen and bathroom). In 1947, Parcel 3 was improved with a Residence fronting on 23rd Avenue, and in 1950 Parcel 4 was improved with a soda bottling works.

- The Sanborn map shows that, in the backyard of the Residence, a garage structure (structure labeled "auto") and a garden were present at the *site* (Parcel 3). The former location of the auto garage is approximately equivalent to the current position of part of the living room, bathroom, and kitchen.
- According to Mr. Ronald Dreisbach (a part owner of P&D 23rd Avenue Associates, LLC), the *site* (Parcel 1 and 2) was used for lumber storage, and the neighboring property to the north was used as a planing mill and a lumber yard as early as 1940; these uses are corroborated by Mr. Dreisbach's photo of his father at the property and by the Sanborn Maps. The incinerator that was at the *site* was built for the burning of sawdust and wood debris originating from the lumber planing operation. The incinerator was constructed in the current location of the kitchen/dining area and a large portion of the current printing workshop at the *site*. According to the telephone directories, the planing mill operation to the north ceased in approximately 1955 and was replaced by a box and lumber operation, which was replaced by a fruit sorting and packing operation.
- In 1952-1957, the *site* was used as a warehouse (except for the incinerator) for Parcels 1 and 2, a residence for Parcel 3, and a venetian blind factory for Parcel 4.
- In 1959, the *site* was used for the storage of firewood and old machinery as well as for a records storage warehouse; the incinerator was no longer in use on Parcels 1 and 2. Parcel 3 was razed, and Parcel 4 remained as a venetian blind factory.
- In 1960, Parcels 1 and 2 continued to be used for a records storage warehouse as well as for a woodworking shop. Parcel 3 was improved with a steel warehouse. Parcel 4 remained in use as a venetian blind factory.
- Between 1962 and 1963, the City of Oakland (City) took the *site* by eminent domain for construction of its 23rd Avenue railroad overcrossing ramp. After the City took the property, the *site* buildings were razed.
- After the block was razed, a new street, Calcot Place, was constructed across the block. The Dreisbachs, who had owned Parcels 1 and 2 of the block, became the owners of the new "triangle" property upon which they built a new building (Architect Plans are dated 1966), which is the current building.
- No records are present regarding the year that the two 5,000-gallon fuel tanks were installed. However, the architect's drawing dated 1966 for the *site* indicates the existence of plans for a canopy to be built over a concrete pad, which corresponds to the location of the tank pit. This suggests that the tanks were considered in the planning of the 1966 architectural design. Mr. Dreisbach reported the use of gas and diesel in the tanks since the 1970's.
- According to Sanborn maps, a printing company operated at the *site* between 1967 and 1969. Between 1970 and 1980, according to street directories, the *site* was used as a U.S. Department of Agriculture (USDA) meat inspection facility and warehouse. Two floor drains and a grease trap that drained to the sanitary sewer (see **Figure A**), were likely installed during this time for use with the meat inspection facility operations.
- Telephone directory records indicate that between 1980 and 1981 the USDA meat inspection facility ceased operations at the *site*.

- Between 1981 and 1990, the *site* was used as a mechanics shop for the rebuilding of Cummins diesel injectors. Hazardous materials were stored or used on *site* for this operation.
- In 1985 the fire department reported that two 5,000-gallon diesel tanks were in use. (Again, the date of tank installation is not reasonably ascertainable in the record.) Hazardous waste was reported to have been generated in the form of diesel, solvents, and sludge originating from the injectors. [Until recently (2010), two floor drains from the meat packing operation (the current t-shirt warehouse area) were open. They are now cemented closed.]
- In 1989, leakage was detected at the unions of the delivery lines on both fuel pumps, during a routine inspection.
- In March 1990, Heitz Trucking, Inc. began to use the *site*.
- In 1993, a routine inspection reported the generation of waste oil and solvents, which were being stored at the *site*.
- In 1995, the *site* was re-developed as an artist "work-live" space; however, the truck refueling facility remained in operation.
- In 1996, a routine inspection reported that fuel had spilled into the storm sewer system and that the UST vent pipes were broken.
- In 1998, a fuel spill from the fuel tank dispenser into the storm sewer was reported, and broken vent pipes were noted.
- In 1990, Mechanic Jim Brooks claimed that he had "worked with the tank system for 10 years."
- During December 1990, seepage of fuel at a vent pipe coupling located one foot above ground was reported, according to the Fire Department.

December 1998

Environmental Bio-Systems (EBS) excavated and removed two 5,000-gallon diesel USTs and the associated product piping from the tank pit at the *site*. A total of four soil samples were collected near the ends of each tank from approximately nine feet below ground surface (bgs). All four soil samples were subsequently analyzed for total petroleum hydrocarbons detected as diesel (TPH-d); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and methyl tertiary butyl ether (MTBE). Samples were collected from the pit wall northeast and southeast of Tank A (the northern tank). No detections were reported above the method detection limit in the samples collected from the northeast and southeast ends of Tank A. Samples were collected from the pit wall northwest and southwest of Tank B (the southern tank); the northwest sample was found to contain 1,800 milligrams per kilogram (mg/kg) TPH-d and 0.051 mg/kg xylenes, and no detections were reported above the method detection limit in the southwest sample.

February 2000

The February 18, 2000 "Workplan: Subsurface Exploration" was produced by EBS.

October 2000

In October 2000, EBS drilled four soil borings (designated TW1, TW2, TW3, and D1). Soil borings TW1 through TW3 were drilled in the concrete-paved area surrounding the former UST excavation. Boring D1 was drilled in the building, adjacent to the former dispenser location, which had been housed within an enclosed room at the west end of the building.

EBS collected four soil samples from the borings and installed pre-packed temporary well points in two of the borings (TW2 and TW3). Soil sample TW2 was collected at 16.5 feet bgs, and soil sample TW3 was collected at 17 feet bgs; two soil samples were collected from D1. The drilling and sampling were performed by FAST-TEK Engineering Support Services of Point Richmond, California (C-57 Lic. #624461) using a Geoprobe 5400 direct push rig. Borings TW2 and TW3 were drilled to a total depth of 22 feet bgs. Boring D1 was drilled to a total depth of 8 feet bgs, and boring TW1 was abandoned at 3 feet bgs because of subsurface obstructions; neither the soil nor groundwater was sampled at this location. Groundwater was encountered between 16.5 feet and 17.0 feet bgs. EBS submitted four soil samples and two groundwater samples to Analytical Sciences, Inc. of Petaluma, California, a California State-certified laboratory for TPH-d, BTEX, and MtBE analyses. The results were presented in the EBS "Subsurface Exploration Report" dated December 31, 2001.

Soil sample TW2-16.5' was found to contain 4,200 mg/kg TPH-d and 1.4 mg/kg benzene. Soil sample TW3-17' was found to contain 2,700 mg/kg TPH-d. Soil samples D1-3' and D1-8' were found to contain 3,400 and 34 mg/kg TPH-d, respectively. Groundwater sample TW2-H_2O was found to contain 660 micrograms per liter (µg/L) TPH-d, 65 µg/L benzene, 2.4 µg/L toluene, and 3.2 µg/L total xylenes. Groundwater sample TW3-H_2O was found to contain 800 µg/L TPH-d and 0.9 µg/L benzene.

April 2002

On April 15, 2002, Alameda County Environmental Health Department (ACEH) approved the work proposed in Clearwater's "Site Closure Workplan" (dated March 21, 2002). An October 3, 2002, "Site Closure Report" reported findings of the work that had been approved in the workplan. Sensitive receptors listed in the "Site Closure Report" included the residents of the building, and Clearwater recommended that migration pathways (via concrete cracks and other permeable features) be sealed. On the basis of information on groundwater flow available in reports on other local sites, the groundwater flow direction was found to be north at a gradient of 0.01. No drinking water wells were found to be present in the direct vicinity per the EDR report. However, subsequently, several wells per block have been identified on the Sanborn Maps. The only subsurface conduits identified were the utility trenches under and around the property.

November 2005

On November 16, 2005, Clearwater supervised the advancement of four soil borings (S5 through S8) at the *site*. One grab groundwater sample was collected from soil boring S5, which was located between the dispenser and the former tank pit. Boring logs indicated that the subsurface (to 20 feet) is composed of mostly clayey gravel (most likely this reflects backfill), and the laboratory results showed no detectable concentrations of BTEX. The concentrations of TPH-d in soil ranged from 5.8 mg/kg in S5-20′ to 1,200 mg/kg in S7-15′. Analytical results of the groundwater sample at S5 indicated a TPH-d concentration of 890 µg/L, and no other constituents of concern were reported. Evidence of previous forge use was observed in the drilling of soil boring S6 (5 refusals), consisting of metal slag, debris, and general fill materials. These results were reported in the February 23, 2006, Clearwater document titled "Subsurface Investigation Results."

June 2006

On the basis of approvals by ACEH on June 13, 2006, and August 4, 2006, Clearwater performed a soil investigation and soil vapor survey at the *site*. Soil samples were collected from S9 through S11 at 4 feet bgs. Soil vapor samples were collected at borings V1 through V3. TPH-d was reported at concentrations ranging between 21 mg/kg in S11 to 7,500 mg/kg in S9. No soil sample results showed concentrations of BTEX above the laboratory reporting limit of 0.0050 mg/kg. Two soil vapor samples were collected from each vapor boring at 4 feet bgs. Concentrations of TPH-d detected in vapor samples ranged from 180,000 micrograms per cubic-meter ($\mu g/m^3$) in V2.2 4L (V2 at 2 feet bgs using a 4 liter canister) to 7,300,000 $\mu g/m^3$ in V3.4 1L. Results were documented in the January 11, 2007, Clearwater report titled "Results of Soil Vapor and Soil Boring Sampling Investigation – Risk Based Corrective Analysis Report."

June 2010

On October 28, 2009, ACEH concurred with Clearwater's work plan titled "Work Plan for Sub-Slab Vapor Sampling" (dated September 9, 2008), and this work phase was begun on June 10, 2010. Soil vapor samples were collected from the soil vapor points on June 17, 2010. Samples were collected at installed soil vapor points SS-1 through SS-6. The constituent of concern, TPH-d, was not detected in any of the soil vapor samples. Toluene (T) was detected in SS-3 at 2,600 $\mu g/m^3$. Xylenes (X) were detected in SS-3 at 6,050 $\mu g/m^3$. Ethylbenzene (E) was detected in SS-3 at 2,000 $\mu g/m^3$. TPH-g was detected in SS-3 at 37,000 $\mu g/m^3$. No other constituents of concern were detected. The source for TPH-g and TEX was unknown. This information is documented in the Clearwater July 23, 2010, report titled "Results of Sub-Slab Soil Vapor Investigation Report." To rule out propane as the TPH-g source (SS-3 is close to a 3-inch diameter natural gas line servicing the building structure but not currently in use), both methane and PG&E's leak detection gas were tested for. The results for both were negative.

Because of the elevated reporting levels reported in the soil vapor samples collected June 17, 2010, ACEH requested re-sampling of the 6 soil vapor sample points, in a letter dated August 16, 2010. Re-sampling was performed on November 4, 2010. The re-sampling results indicated a TPH-d concentration of 5,800 $\mu g/m^3$ at vapor sampling point SS-3. No other detections of TPH-d were reported by the laboratory. Naphthalene was detected in SS-3 (8.0 $\mu g/m^3$) and in SS-6 (4.6 $\mu g/m^3$). Analytes 1-methylnaphthalene (24 $\mu g/m^3$) and 2-methylnaphthalene (36 $\mu g/m^3$) were both detected in SS-3. Analyte 2-methylnaphthalene was also detected in SS-6 (4.3 $\mu g/m^3$). Concentrations of TPH-g and TEX were detected above detection limits in SS-3 (TPH-g at 13,000 $\mu g/m^3$, toluene at 60 $\mu g/m^3$, ethylbenzene at 560 $\mu g/m^3$, and xylenes at 2,940 $\mu g/m^3$).

The focus of the investigation shifted to identifying the source that was contributing to the TPH-g and TEX detections. The lack of benzene detections indicated that the detected fraction of TPH-g was likely a weathered fuel and thus the evidence of a relatively old release. Concurrently, Clearwater obtained data on historical uses for information on the possible source of such a release. The uses of interest include an auto garage, a truck parts repair company, an incinerator, a forgings (blacksmith), and the fueling facility. The utility infrastructure in the surrounding streets may provide a conduit. But no clear source was identified. The "Historical Uses" Report on the *site* was produced on December 1, 2010.

The November 4, 2010, soil vapor sampling results were documented in the December 10, 2010, report titled "Results of Additional Sub-Slab Vapor Investigation." This investigation included a workplan.

Clearwater staff met with ACEH staff to review the workplan. Discussion during the meeting resulted in the following changes to the projected plan of work at the *site*: 1) the installation of an additional vapor sample point (SS-7) within the first floor living area; 2) a round of sampling of all existing vapor points (SS-1 through SS-7); 3) three soil borings for the collection of soil and groundwater data near the former tank pit, west of the former tank pit, and west of SS-3; and 4) the (limited) excavation of impacted soil and removal of the vent pipes and dispenser island. Clearwater produced a workplan addendum to address these changes.

February 2011

Per the February 1, 2011, ACEH approval of Clearwater's January 24, 2011, work plan addendum titled "Revised Workplan," soil vapor points SS-5R and SS-7 were installed on February 10, 2011. SS-5R replaced SS-5 because the original SS-5 had been crushed by a t-shirt printer. SS-7 was installed within the living room as a step-out from SS-3. On April 1, 2011, soil vapor probes SS-1 through SS-7 were sampled. TPH-g was detected in all the samples collected during the April 2011 event, at concentrations ranging from <160 $\mu g/m^3$ in several samples to 12,000 $\mu g/m^3$ in sample SS-3. In addition to naphthalene (8,200 $\mu g/m^3$) and TPH-g (12,000 $\mu g/m^3$), all the BTEX components were detected in sample SS-3. Only toluene was detected in samples SS-5 (8.2 $\mu g/m^3$) and SS-7 (5.9 $\mu g/m^3$). Naphthalene was also detected in SS-7 at a concentration of 10 $\mu g/m^3$. TPH-d was detected above the detection limit in SS-3 (8,200 $\mu g/m^3$) and SS-4 (9,500 $\mu g/m^3$). Because of inconclusive source information, Clearwater requested the installation of additional step-out soil vapor sampling points, which ACEH approved.

November 2011

Per concurrence from ACEH on June 6, 2011, Clearwater installed soil vapor points SS-8 through SS-10 on November 10, 2011. A soil and groundwater investigation took place on November 28, 2011. Soil samples were collected at various depths in soil borings S12 through S14. The highest TPH-d concentration in soil [(in the tank pit) 1,900 mg/kg] was detected in S13 at 14 feet bgs. TPH-g was detected at 65 mg/kg in S13 at 14 feet bgs. A total of three grab groundwater samples were collected during the November 28, 2011, investigation, at borings S-12, S-13, and S-14. The highest TPH-d concentration was detected in S-13 at 36,000 µg/L (collected between 11 and 15 feet bgs). The highest TPH-g concentration was detected in S-13 at 200 µg/L (collected between 11 and 15 feet bgs).

December 2011

On December 8, 2011, soil vapor samples were collected at sample points SS-1 through SS-10.

REFERENCES LIST

U.S. Geological Survey (USGS), Oakland East, California Quadrangle Map, 7.5-Minute Series, Topographic, 1959, Photorevised 1980.

Environmental Bio-Systems, Inc., April 21, 1999, UST Excavation, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA.

Environmental Bio-Systems, Inc., February 18, 2000, Workplan: Subsurface Exploration, Project #079-541B, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA.

Environmental Bio-Systems, Inc., December 31, 2001, Subsurface Exploration, Project #079-541A, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA.

Environmental Bio-Systems, Inc., March 21, 2002, Site Closure Workplan, Project #590, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA.

Environmental Data Resources, April 29, 2002, The EDR Radius Map with GeoCheck; Topographic Maps, Sanborn Insurance Maps, Historic Aerial Photographs; 23rd Avenue Partners, 1125 Miller Ave., Oakland, CA 94617; Inquiry Number: 770535.3S, Southport, Connecticut.

Environmental Bio-Systems, Inc., October 3, 2002, Site Closure Report, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA 94617.

Environmental Bio-Systems, Inc., January 26, 2004, Work Plan: Groundwater Monitoring Well Installation, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA 94617.

Clearwater Group, October 12, 2005, Response to Agency Comments and Workplan Addendum, 1125 Miller Avenue, Oakland, CA 94617.

Clearwater Group, February 23, 2006, Subsurface Investigation Results, 23rd Avenue Partners, 1125 Miller Ave., Oakland, CA 94617.

Clearwater Group, January 11, 2007, Results of Soil Vapor and Soil Boring Sampling Investigation – Risk Based Corrective Analysis Report, 23rd Avenue Partners, 1125 Miller Ave., Oakland, CA 94617.

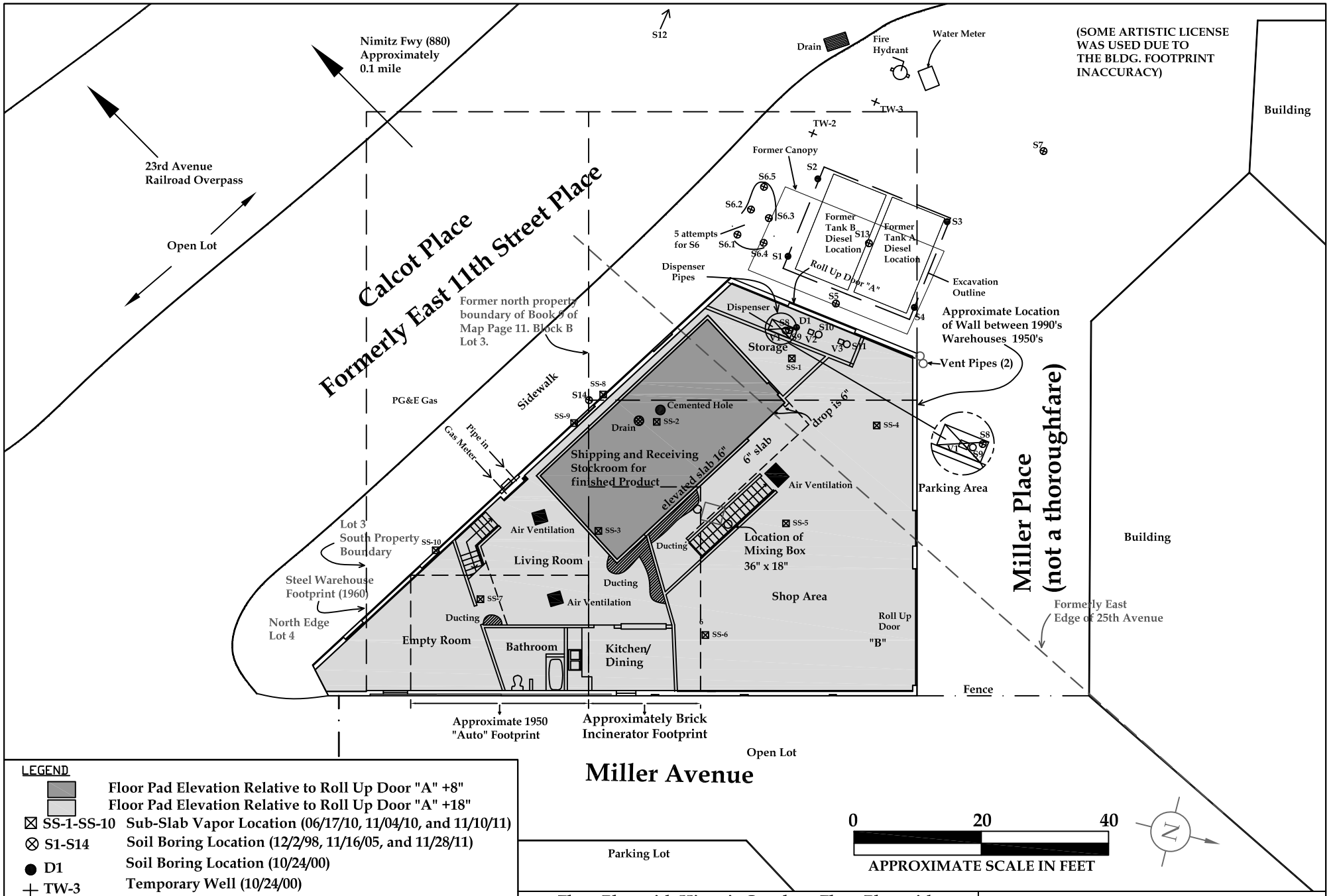
Clearwater Group, September 9, 2008, Work Plan for Sub-Slab Vapor Sampling, 23rd Avenue Partners, 1125 Miller Ave., Oakland, CA 94617.

Clearwater Group, July 23, 2010, Results of Sub-Slab Soil Vapor Investigation Report, 23rd Avenue Partners, 1125 Miller Ave., Oakland, CA 94617.

Clearwater Group, December 1, 2010, Historical Property Uses, 23rd Avenue Partners, 1125 Miller Ave., Oakland, CA 94617.

Clearwater Group, December 10, 2010, Results of Additional Sub-Slab Vapor Investigation, 23rd Avenue Partners, 1125 Miller Ave., Oakland, CA 94617.

Clearwater Group, January 24, 2011, Revised Workplan, 23rd Avenue Partners, 1125 Miller Ave., Oakland, CA 94617.



LEGEND

- Floor Pad Elevation Relative to Roll Up Door "A" +8"
- Floor Pad Elevation Relative to Roll Up Door "A" +18"
- ⊠ SS-1-SS-10 Sub-Slab Vapor Location (06/17/10, 11/04/10, and 11/10/11)
- ⊗ S1-S14 Soil Boring Location (12/2/98, 11/16/05, and 11/28/11)
- ● D1 Soil Boring Location (10/24/00)
- + TW-3 Temporary Well (10/24/00)
- ○ S9-S11 Soil Boring Location (11/15/06)
- □ V1-V3 Soil Vapor Location (11/15/06)

*Note: Five attempts to bore S6 met refusal at 4'-6' due to subsurface debris.

Air Ventilation and Ducting are all in Ceiling

Floor Plan with Historic Overlay - Floor Plan with Incinerator Footprint, Former Property Line Footprints, Former Street Footprint and Concrete Floor Slabs Indicated

1125 Miller Avenue
Oakland, California

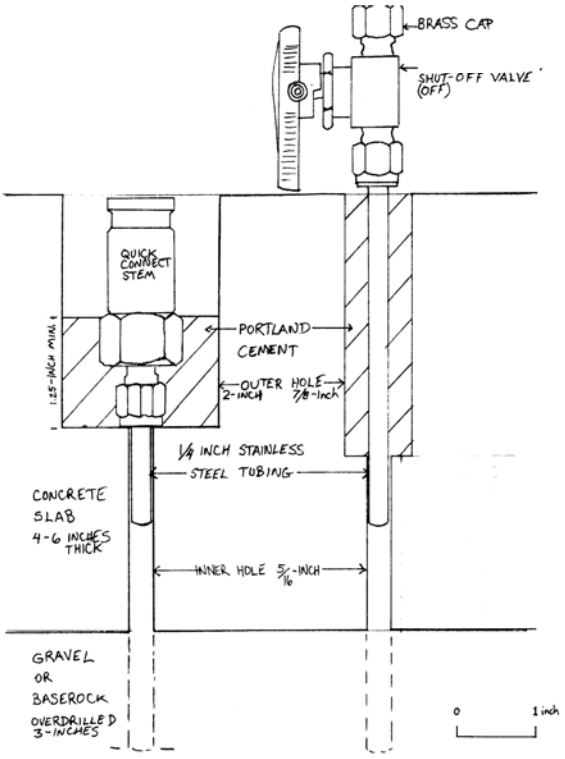
CLEARWATER GROUP

Project No.	Figure Date	Figure
CB018	**02/12**	**A**

ATTACHMENT C

SVC
ENVIRONMENTAL, INC.

Typical Sub-Slab Soil Vapor Diagrams and Photographs



Sub-slab Vapor Probe Diagram (Flush mount and Raised Mount diagrams)

Typical sub-slab sampling manifold and encasement within Shroud with IPA atmosphere.

CLEARWATER GROUP

TO-17 Sorbent Tubes Standard Operating Procedure

Sorbent & Tubes:

- BTEX: Carbopack™ B, Combination Tubes 1, 2, 3, or Chromosorb 106
- TPHd: same tube as BTEX

Tubes are ¼ inch (6 mm) O.D. of glass or stainless steel and can vary in length.

Air toxics - TO-17 Multi-bed Carbotrap 300 Tubes. These are generally stainless steel tubes packed with Carbopack C (a weak sorbent), Carbopack B (a medium sorbent) and Carbosieve SIII (a strong sorbent). This multibed tube can be used for a broad range of target compounds: Vinyl chloride to pyrene has been validated using these tubes.

Conditioning the Tube

- New tubes will need to be conditioned for approximately 30 minutes at 250 °C and 100 mL/min.
- Once conditioned, seal with brass, ¼" Swagelok®-type fittings and PTFE ferrules.
- Wrap the sealed tubes in uncoated Al foil and place the tubes in a clean, airtight, opaque container.
- Store in a refrigerator at 4 °C if not used within a day.
- On second and subsequent uses, the tubes will generally not require further conditioning as above. However, tubes with an immediate prior use indicating high levels of pollutant trace gases should be reconditioned prior to continued usage.

Sample Apparatus

- Sampling apparatus should accommodate at least two sampling tubes with independent control of sampling rate at a settable value in the range of 10 to 200 mL/min.
- Sampling rates:
    - 1 L for 1 hr is 16.7 mL/min
    - 4 L for 1 hr is 66.7 mL/min

Sample Collection

- At monitoring location, keep the tubes in storage container to equilibrate with ambient temperature
- Using clean gloves, remove sample tubes from container, remove caps, and attach to sampling lines of non-out gassing flexible tubing
- Set flow rate using mass flow monitor
- Set up sampling train (from front-to-back: in-line particulate filter (optional), an ozone scrubber (optional), a sampling tube, back-up tube (if any), and a flow controller/pump combination.

- Place the mass flow monitor in line after the tube. Turn the pump on and wait for one minute. Establish the approximate sampling flow rate using a dummy tube of identical construction and packing as the sampling tube to be used.
- Place the sampling tubes to be used on the sampling train and make final adjustments to the flow controller as quickly as possible to avoid significant errors in sample volume
- Adjust flow rate of one tube to sample at 16.7 mL/min and the second for 66.7 mL/min.
- Sample for 1 hour.
- Immediately remove the sampling tubes with clean gloves, recap tubes, rewrap tubes with uncoated Al foil, and place the tubes in a clean, opaque, airtight container and cool to <4 °C.

CLEARWATER GROUP

SUMMA Canister Standard Operating Procedure (TO-14 & TO-15)

Summa canisters range in volume from less than 1L to greater than 15L. 6L canisters are generally used for ambient air samples and for collecting samples over time. 1L canisters are normally used for taking high level (ca. > 100 ppbv) grab samples although exceptions to these guidelines are common.
Air Toxics Ltd., in support of its analytical services, maintains a large inventory of 250mL, 1L and 6L canisters, over 3000. All canisters are cleaned using proprietary techniques and certified using GC/MS TO-15 protocols.
Air Toxics has over 1000 flow controllers in inventory. They are used when collecting a sample over a period of time - up to 24 hours. For sampling intervals up to 8 hours we use an in-house design, which has proven to be very reliable and free of contamination.

Definition

- Pressurized Sampling – collection of an air sample in a canister with a (final) canister pressure above atmospheric pressure, using a sample pump
- Subatomic Sampling – collection of an air sample in an evacuated canister at a (final) canister pressure below atmospheric pressure, without the assistance of a sampling pump. The canister is filled as the internal canister pressure increases to ambient or near ambient pressure. An auxiliary vacuum pump may be used as part of the sampling system to flush the inlet tubing prior to or during sample collection.

Sampling System

- Subatmospheric pressure and pressurized canister sampling systems are commercially available.
    - Subatmospheric pressure sampling may be used to collect grab samples (duration of 10 to 30 seconds) or time-integrated samples (duration of 12-24 hours) taken through a flow-restrictive inlet (e.g., mass flow controller, critical orifice). In preparation for subatmospheric sample collection in a canister, the canister is evacuated to 0.05 mm Hg. When opened to the atomospheric containing the VOCs to be sampled, the differential pressure causes the sample to flow into the canister.
    - Pressurized sampling is used when longer-term integrated samples or higher volume samples are required. The sample is collected in a canister using a pump and flow control arrangement to achieve a typical 103-206 kPa (15-30 psig) final canister pressure. For example, a 6-liter evacuated canister can be filled at 10 mL/min for 24 hours to achieve a final pressure of about 144 kPa (21 psig).
- For automatic operation, the timer is wired to start and stop the pump at appropriate times for the desired sample period. The timer must also control the solenoid valve, to open the valve when starting the pump and close the valve when stopping the pump.

- The connecting lines between the sample inlet and the canister should be as short as possible to minimize their volume. The flow rate into the canister should remain relatively constant over the entire sampling period. If a critical orifice is used, some drop in the flow rate may occur near the end of the sample period as the canister pressure approaches the final calculated pressure.
- Prior to field use, each sampling system must pass a humid zero air ceritification and all plumbing should be checked carefully for leaks.

Sampling Procedure

- A sample collection system is assembled.
- The canister valve and vacuum/pressure gauge valve are opened and the pressure/vacuum is recorded.
- The vacuum/pressure gauge valve is closed and the maximum-minimum thermometer is reset to current temperature. Time of day and elapsed time meter readings are recorded on the canister sampling field data sheet.
- The electronic timer is set to begin and stop the sampling period at the appropriate times. Sampling commences and stops by the programmed timer.
- After the desired sampling period, the maximum, minimum, current interior temperature and current ambient temperature are recorded. The current reading from the flow controller is recorded.
- At the end of the sampling period, the vacuum/pressure gauge valve on the sampler is briefly opened and closed and the pressure/vacuum is recoded. Pressure should be close to desired pressure.
- The canister valve is closed. The sampling line is disconnected from the canister and the canister is removed from the system. The sampler is turned off.

CLEARWATER GROUP

Soil Vapor Sampling Procedures Where
Total Petroleum Hydrocarbons as Diesel is a Constituent of Concern

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To confirm the presence of shallow soil contamination where total petroleum hydrocarbons as diesel (TPH-d) are suspected, a soil vapor sampling event may be conducted using Direct Push Technology with a Macro-Core® Soil Sampler or similar drilling equipment. The soil vapor sample would be collected and analyzed using EPA Method TO-17 for concentrations of TPH-d. Air Toxics, LTD. of Folsom, California has developed a protocol for the analysis of TPH-d using EPA Method TO-17 which provides a laboratory reporting limit of 100 nanograms. Air Toxics is continuing their efforts to develop laboratory methods that would increase the variation of constituents that can be analyzed using this method. Currently there are a number of soil vapor sampling methods that may be employed for the analysis of benzene, toluene, ethyl benzene, xylenes (BTEX), total petroleum hydrocarbons as gasoline (TPH-g), or methyl tertiary butyl ether (MTBE), however these methods provide poor recovery levels for the analysis of TPH-d. It is recommended that the project laboratory such as Air Toxics be contacted prior to the soil vapor sampling event to ensure that the TO-17 sample method is sufficient for the entire list of analytes required for the project site.

TO-17 Multi-Bed Carbotrap 300 Tubes Discussion

TO-17 Multi-bed Carbotrap 300 tubes are generally constructed of stainless steel and are packed with more than one absorbent in order of increasing absorbent strength. The Multi-bed Carbotrap 300 tubes are packed with hydrophobic absorbents such as: Carbopack C (a weak absorbent), Carbopack B (a medium absorbent) and Carbosieve SIII (a strong absorbent). According to the *Compendium Method TO-17, Determination of Volatiles Organic Compounds in Ambient Air Using Active Sampling Onto Sorbent Tubes* higher weight molecular compounds are retained in the front, least retentive, absorbent; while the more volatile compounds are retained further into the packing on the stronger absorbent. The higher molecular weight compounds never encounter the stronger absorbents thereby improving the efficiency of analysis.

The TO-17 Multi-bed Carbotrap 300 tubes come pre-conditioned and ready for vapor sample collection. According to Air-Toxics, because the composition of the vapor sample is often unknown, it is best to collect a series of samples using 2 or 3 different sample volumes, often referred to as distributive volume sampling. The EPA requires the use of distributed volume pairs for monitoring to ensure high quality data. The TO-17 method recommends that the distributive volume sampling be completed using 1-liter and 4-liter total sample volumes.

TO-17 Multi-Bed Carbotrap 300 Tubes Field Application

Soil vapor samples may be collected at various depths using the direct soil gas sampling system provided by Geoprobe Systems®. The direct soil gas sampling system allows the driller (a C-57 licensed drilling contractor) to drive probe rods to the desired depth, connect the gas sampling cap to the top of the drive rode, pull up on the drive rod to expose the soil vapor screen located below ground. A sample pump capable of flow rates ranging from 10 to 200 milliliters per minute (mL/min) such as the Gilair-5 Active Air Pump™ is then connected to the nipple on the

gas sampling cap. The Gilair-5 Active Air Pump™ can be rented from Clean Air Engineering, Palatine, Illinois.

The Geoprobe® gas sampling caps are designed to receive 0.25-inch inner diameter tubing which will then be connected to the Gilair-5 Active Air Pump™ (or equivalent equipment) using a 0.25-inch inner diameter connector. Clean Air Engineering recommends using tygon tubing. Tubing is then connected from the air pump to the TO-17 Multi-bed Carbotrap 300 tube which has an outer diameter of 0.25-inch and comes pre-conditioned for field sampling. Prior to connecting the TO-17 Multi-bed Carbotrap 300 tube to the sample pump, the line will be purged with source soil vapor allowing ample time to set the sample flow rate on the sample pump using an air flow calibrator. To satisfy the distributive volume sampling requirement, at least 2 vapor samples such as a 1-liter and a 4-liter are collected at each sampling point. To collect a 1-liter volume sample the sample pump flow rate will be set at 66.7 mL/min for approximately 15 minutes. The 4-liter volume sample requires that a flow rate of 133.3 mL/min for approximately 30 minutes. With sampling equipment set up and sample time taken into consideration, it is expected that each TO-17 Multi-bed Carbotrap 300 tube sample location will take at least 1-hour to complete.

Each sample volume will be labeled according to the soil vapor boring location, corresponding sample depth and sample volume collected. For example, a 1 liter sample volume collected at 2 feet bgs in soil vapor boring location V-1 would be labeled as V-1-2-1. The samples are then be recorded on a chain of custody form supplied by Air-Toxics, placed in their respective shipping sleeves and placed on ice for transport to the project laboratory. The samples have a hold time of up to 30 days however transport to the project laboratory will occur no later than 72 hours from the date of collection. At the project laboratory the samples will be analyzed under the standard 10 day turn around time using EPA Method TO-17 for concentrations of TPH-d and BTEX.

Confirmation Soil Vapor Sampling Using SUMA Canisters

Confirmation soil vapor sampling may be required by some oversight agencies. To satisfy this requirement, soil vapor samples are collected using SUMMA canisters at the soil vapor sample depths corresponding with TO-17 soil vapor sampling locations. The confirmation samples will be collected after the vapor samples have been collected using the TO-17 Multi-bed Carbotrap 300 tubes.

To accomplish the confirmation sampling using SUMMA canisters, it is recommended that a 6-liter sub-atmospheric pressure canister be used. The 6-liter canister will be assembled in series using Teflon tubing attached to the Geoprobe® gas sampling cap which is connected to an air flow controller capable of regulating air flow to 200 mL/min. The SUMMA canister is then connected to the air flow regulator. Since the sub-atmospheric pressure canister is an evacuated canister (final canister pressure is below atmospheric pressure), the soil vapor sample can be collected without the use of a sample pump. The recommended sample duration is approximately 30 minutes. After 30 minutes the sample valve will be closed, the canister will be labeled and documented on a chain-of-custody form and transported to the project laboratory for analysis of BTEX and TPH-d using EPA Method TO-15. The sample hold-time is up to 30 days however Air-Toxics recommends that the samples be analyzed within 14 days of collection.

Standard Operating Procedure for Drilling, Soil Sampling, and Analysis

Prior to conducting field activities, a soil boring permit for drilling will be obtained from the appropriate permitting agency. The site specific Health and Safety Plan will be updated as needed. All field personnel on-site will review and sign the site specific Health and Safety plan, prepared in accordance with OSHA 1910.120, at the start of the field day.

ATTACHMENT D

Air Toxics LTD.
Laboratory Services Since 1989

4/13/2011
Ms. Olivia Jacobs
Clearwater Group, Inc.
229 Tewksbury Avenue

Point Richmond CA 94801

Project Name: 1125 Miller
Project #:
Workorder #: 1104040

Dear Ms. Olivia Jacobs

The following report includes the data for the above referenced project for sample(s) received on 4/2/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1104040

Work Order Summary

CLIENT:	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801	**BILL TO:**	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801
PHONE:	510-307-9943	**P.O. #**	
FAX:		**PROJECT #**	1125 Miller
DATE RECEIVED:	04/02/2011	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	04/13/2011		

FRACTION #	NAME	TEST
01A	SS-5	Modified TO-17 VI
02A	SS-4	Modified TO-17 VI
03A	SS-3	Modified TO-17 VI
04A	SS-2	Modified TO-17 VI
05A	SS-1	Modified TO-17 VI
06A	SS-6	Modified TO-17 VI
07A	SS-7	Modified TO-17 VI
08A	Lab Blank	Modified TO-17 VI
09A	CCV	Modified TO-17 VI
10A	LCS	Modified TO-17 VI

CERTIFIED BY: Linda D. Frumarn DATE: 04/13/11

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11
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
EPA Method TO-17
Clearwater Group, Inc.
Workorder# 1104040

Seven TO-17 VI Tube samples were received on April 02, 2011. The laboratory performed the analysis via EPA Method TO-17 using GC/MS in the full scan mode. TO-17 sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for further separation.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A sampling volume of 0.200 L was used to convert ng to ug/m3 for the associated Lab Blank.

The reported CCV and LCS for each daily batch may be derived from more than one analytical file due.

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 and/or LCS.

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

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: SS-5

Lab ID#: 1104040-01A

No Detections Were Found.

Client Sample ID: SS-4

Lab ID#: 1104040-02A

No Detections Were Found.

Client Sample ID: SS-3

Lab ID#: 1104040-03A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	0.84	4.2
1-Methylnaphthalene	0.50	2.5	1.4	7.0
TPH (Diesel Range)	1000	5000	1600	8200

Client Sample ID: SS-2

Lab ID#: 1104040-04A

No Detections Were Found.

Client Sample ID: SS-1

Lab ID#: 1104040-05A

No Detections Were Found.

Client Sample ID: SS-6

Lab ID#: 1104040-06A

No Detections Were Found.

Client Sample ID: SS-7

Lab ID#: 1104040-07A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	2.0	10

Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: SS-7

Lab ID#: 1104040-07A

2-Methylnaphthalene	0.50	2.5	2.1	10
1-Methylnaphthalene	0.50	2.5	1.8	9.0

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-5

Lab ID#: 1104040-01A

EPA METHOD TO-17

File Name:	**11040626**	**Date of Extraction: NA**	**Date of Collection: 4/1/11 12:20:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/6/11 03:46 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	66	50-150
Toluene-d8	74	50-150
Naphthalene-d8	78	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-4

Lab ID#: 1104040-02A

EPA METHOD TO-17

File Name:	**11040627**	**Date of Extraction: NA**	**Date of Collection: 4/1/11 1:30:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/6/11 04:26 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	71	50-150
Toluene-d8	78	50-150
Naphthalene-d8	80	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-3

Lab ID#: 1104040-03A

EPA METHOD TO-17

File Name:	**11040628**	**Date of Extraction: NA**	**Date of Collection: 4/1/11 2:09:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/6/11 05:07 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	0.84	4.2
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	1.4	7.0
TPH (Diesel Range)	1000	5000	1600	8200

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	65	50-150
Toluene-d8	81	50-150
Naphthalene-d8	79	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-2

Lab ID#: 1104040-04A

EPA METHOD TO-17

File Name:	**11040629**	**Date of Extraction: NA**	**Date of Collection: 4/1/11 2:47:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/6/11 05:48 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	67	50-150
Toluene-d8	82	50-150
Naphthalene-d8	82	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-1
Lab ID#: 1104040-05A
EPA METHOD TO-17

File Name:	**11040630**	**Date of Extraction: NA**	**Date of Collection: 4/1/11 3:42:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/6/11 06:28 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	71	50-150
Toluene-d8	75	50-150
Naphthalene-d8	74	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-6

Lab ID#: 1104040-06A

EPA METHOD TO-17

File Name:	**11040631**	**Date of Extraction: NA**	**Date of Collection: 4/1/11 4:26:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/6/11 07:08 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	68	50-150
Toluene-d8	82	50-150
Naphthalene-d8	68	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-7

Lab ID#: 1104040-07A

EPA METHOD TO-17

File Name:	**11040632**	**Date of Extraction: NA**	**Date of Collection: 4/1/11 5:06:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/6/11 07:48 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	2.0	10
2-Methylnaphthalene	0.50	2.5	2.1	10
1-Methylnaphthalene	0.50	2.5	1.8	9.0
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	50-150
Toluene-d8	84	50-150
Naphthalene-d8	76	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1104040-08A

EPA METHOD TO-17

File Name:	**11040623**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/6/11 01:15 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	75	50-150
Toluene-d8	88	50-150
Naphthalene-d8	78	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV
Lab ID#: 1104040-09A
EPA METHOD TO-17

File Name:	**11040618**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/6/11 09:21 AM**

Compound	%Recovery
Naphthalene	96
2-Methylnaphthalene	106
1-Methylnaphthalene	104
TPH (Diesel Range)	112

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	50-150
Toluene-d8	111	50-150
Naphthalene-d8	91	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS
Lab ID#: 1104040-10A
EPA METHOD TO-17

File Name:	**11040617**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/6/11 08:41 AM**

Compound	%Recovery
Naphthalene	Not Spiked
2-Methylnaphthalene	Not Spiked
1-Methylnaphthalene	Not Spiked
TPH (Diesel Range)	122

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	50-150
Toluene-d8	89	50-150
Naphthalene-d8	89	50-150

Air Toxics LTD.
Laboratory Services Since 1989

4/18/2011
Ms. Olivia Jacobs
Clearwater Group, Inc.
229 Tewksbury Avenue

Point Richmond CA 94801

Project Name: 1125 Miller Ave
Project #:
Workorder #: 1104092A

Dear Ms. Olivia Jacobs

The following report includes the data for the above referenced project for sample(s) received on 4/5/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1104092A

Work Order Summary

CLIENT:	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801	**BILL TO:**	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801
PHONE:	510-307-9943	**P.O. #**	
FAX:		**PROJECT #**	1125 Miller Ave
DATE RECEIVED:	04/05/2011	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	04/18/2011		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SS-5	Modified TO-15	4.0 "Hg	15 psi
02A	SS-4	Modified TO-15	4.0 "Hg	15 psi
03A	SS-3	Modified TO-15	1.5 "Hg	15 psi
04A	SS-2	Modified TO-15	4.0 "Hg	15 psi
05A	SS-1	Modified TO-15	4.0 "Hg	15 psi
06A	SS-6	Modified TO-15	4.5 "Hg	15 psi
07A	SS-7	Modified TO-15	4.5 "Hg	15 psi
08A	Lab Blank	Modified TO-15	NA	NA
09A	CCV	Modified TO-15	NA	NA
10A	LCS	Modified TO-15	NA	NA
10AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Linda J. Fruman DATE: 04/18/11

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11
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
EPA Method TO-15
Clearwater Group, Inc.
Workorder# 1104092A

Seven 1 Liter Summa Canister samples were received on April 05, 2011. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

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.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

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 and/or LCS.

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

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: SS-5

Lab ID#: 1104092A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	2.2	4.4	8.2
TPH ref. to Gasoline (MW=100)	58	220	240	880

Client Sample ID: SS-4

Lab ID#: 1104092A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	58	130	240	520

Client Sample ID: SS-3

Lab ID#: 1104092A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	1.2	3.4	3.8
Toluene	1.1	4.2	4.0	16
Ethyl Benzene	1.1	26	4.6	110
m,p-Xylene	1.1	94	4.6	410
o-Xylene	1.1	55	4.6	240
TPH ref. to Gasoline (MW=100)	53	2100	220	8600

Client Sample ID: SS-2

Lab ID#: 1104092A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	58	130	240	530

Client Sample ID: SS-1

Lab ID#: 1104092A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	58	130	240	540

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: SS-6

Lab ID#: 1104092A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	60	98	240	400

Client Sample ID: SS-7

Lab ID#: 1104092A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	34	12	85
Toluene	1.2	1.6	4.5	5.9
TPH ref. to Gasoline (MW=100)	60	170	240	690

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-5

Lab ID#: 1104092A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041218**	**Date of Collection: 4/1/11 12:05:00 PM**	
Dil. Factor:	**2.33**	**Date of Analysis: 4/12/11 06:22 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.7	Not Detected	11	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Toluene	1.2	2.2	4.4	8.2
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
tert-Butyl alcohol	4.7	Not Detected	14	Not Detected
Ethyl-tert-butyl ether	4.7	Not Detected	19	Not Detected
Isopropyl ether	4.7	Not Detected	19	Not Detected
tert-Amyl methyl ether	4.7	Not Detected	19	Not Detected
TPH ref. to Gasoline (MW=100)	58	220	240	880

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-4

Lab ID#: 1104092A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041219**	**Date of Collection: 4/1/11 1:04:00 PM**	
Dil. Factor:	**2.33**	**Date of Analysis: 4/12/11 07:21 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.7	Not Detected	11	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
tert-Butyl alcohol	4.7	Not Detected	14	Not Detected
Ethyl-tert-butyl ether	4.7	Not Detected	19	Not Detected
Isopropyl ether	4.7	Not Detected	19	Not Detected
tert-Amyl methyl ether	4.7	Not Detected	19	Not Detected
TPH ref. to Gasoline (MW=100)	58	130	240	520

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-3

Lab ID#: 1104092A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041220**	**Date of Collection: 4/1/11 1:48:00 PM**	
Dil. Factor:	**2.13**	**Date of Analysis: 4/12/11 07:56 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.3	Not Detected	10	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.8	Not Detected
Benzene	1.1	1.2	3.4	3.8
Toluene	1.1	4.2	4.0	16
Ethyl Benzene	1.1	26	4.6	110
m,p-Xylene	1.1	94	4.6	410
o-Xylene	1.1	55	4.6	240
tert-Butyl alcohol	4.3	Not Detected	13	Not Detected
Ethyl-tert-butyl ether	4.3	Not Detected	18	Not Detected
Isopropyl ether	4.3	Not Detected	18	Not Detected
tert-Amyl methyl ether	4.3	Not Detected	18	Not Detected
TPH ref. to Gasoline (MW=100)	53	2100	220	8600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	112	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-2

Lab ID#: 1104092A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041221**	**Date of Collection: 4/1/11 2:25:00 PM**	
Dil. Factor:	**2.33**	**Date of Analysis: 4/12/11 08:21 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.7	Not Detected	11	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
tert-Butyl alcohol	4.7	Not Detected	14	Not Detected
Ethyl-tert-butyl ether	4.7	Not Detected	19	Not Detected
Isopropyl ether	4.7	Not Detected	19	Not Detected
tert-Amyl methyl ether	4.7	Not Detected	19	Not Detected
TPH ref. to Gasoline (MW=100)	58	130	240	530

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	90	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-1

Lab ID#: 1104092A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041222**	**Date of Collection: 4/1/11 3:09:00 PM**	
Dil. Factor:	**2.33**	**Date of Analysis: 4/12/11 08:51 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.7	Not Detected	11	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
tert-Butyl alcohol	4.7	Not Detected	14	Not Detected
Ethyl-tert-butyl ether	4.7	Not Detected	19	Not Detected
Isopropyl ether	4.7	Not Detected	19	Not Detected
tert-Amyl methyl ether	4.7	Not Detected	19	Not Detected
TPH ref. to Gasoline (MW=100)	58	130	240	540

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	89	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-6

Lab ID#: 1104092A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041223**	**Date of Collection: 4/1/11 4:03:00 PM**	
Dil. Factor:	**2.38**	**Date of Analysis: 4/12/11 09:14 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	Not Detected	12	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.3	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
tert-Butyl alcohol	4.8	Not Detected	14	Not Detected
Ethyl-tert-butyl ether	4.8	Not Detected	20	Not Detected
Isopropyl ether	4.8	Not Detected	20	Not Detected
tert-Amyl methyl ether	4.8	Not Detected	20	Not Detected
TPH ref. to Gasoline (MW=100)	60	98	240	400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-7

Lab ID#: 1104092A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041224**	**Date of Collection: 4/1/11 4:46:00 PM**	
Dil. Factor:	**2.38**	**Date of Analysis: 4/12/11 09:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	34	12	85
Methyl tert-butyl ether	1.2	Not Detected	4.3	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
Toluene	1.2	1.6	4.5	5.9
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
tert-Butyl alcohol	4.8	Not Detected	14	Not Detected
Ethyl-tert-butyl ether	4.8	Not Detected	20	Not Detected
Isopropyl ether	4.8	Not Detected	20	Not Detected
tert-Amyl methyl ether	4.8	Not Detected	20	Not Detected
TPH ref. to Gasoline (MW=100)	60	170	240	690

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	90	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1104092A-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041217**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/12/11 04:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	2.0	Not Detected	4.9	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1104092A-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/12/11 08:33 AM**	

Compound	%Recovery
2-Propanol	97
Methyl tert-butyl ether	82
Benzene	81
Toluene	84
Ethyl Benzene	93
m,p-Xylene	95
o-Xylene	94
tert-Butyl alcohol	87
Ethyl-tert-butyl ether	91
Isopropyl ether	93
tert-Amyl methyl ether	78
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	90	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	111	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1104092A-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041204**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/12/11 09:16 AM**	

Compound	**%Recovery**
2-Propanol	94
Methyl tert-butyl ether	85
Benzene	83
Toluene	86
Ethyl Benzene	89
m,p-Xylene	89
o-Xylene	89
tert-Butyl alcohol	64
Ethyl-tert-butyl ether	79
Isopropyl ether	84
tert-Amyl methyl ether	64
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 1104092A-10AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6041205**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/12/11 09:35 AM**	

Compound	%Recovery
2-Propanol	92
Methyl tert-butyl ether	87
Benzene	83
Toluene	88
Ethyl Benzene	91
m,p-Xylene	94
o-Xylene	91
tert-Butyl alcohol	65
Ethyl-tert-butyl ether	81
Isopropyl ether	84
tert-Amyl methyl ether	67
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	88	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.
Laboratory Services Since 1989

4/16/2011
Ms. Olivia Jacobs
Clearwater Group, Inc.
229 Tewksbury Avenue

Point Richmond CA 94801

Project Name: 1125 Miller Ave
Project #:
Workorder #: 1104092B

Dear Ms. Olivia Jacobs

The following report includes the data for the above referenced project for sample(s) received on 4/5/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 (5&20 ppbv) are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1104092B

Work Order Summary

CLIENT:	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801	**BILL TO:**	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801
PHONE:	510-307-9943	**P.O. #**	
FAX:		**PROJECT #**	1125 Miller Ave
DATE RECEIVED:	04/05/2011	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	04/16/2011		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
08A	SS-7 (IPA)	Modified TO-15 (5&20 ppbv	3.6 "Hg	15 psi
09A	Lab Blank	Modified TO-15 (5&20 ppbv	NA	NA
10A	CCV	Modified TO-15 (5&20 ppbv	NA	NA
11A	LCS	Modified TO-15 (5&20 ppbv	NA	NA
11AA	LCSD	Modified TO-15 (5&20 ppbv	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 04/16/11

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15 Soil Gas
Clearwater Group, Inc.
Workorder# 1104092B

One PAC250 Canister sample was received on April 05, 2011. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 50 mLs 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.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on sample SS-7 (IPA) due to the presence of high level target species.

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 and/or LCS.

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

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: SS-7 (IPA)

Lab ID#: 1104092B-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	150	38000	380	93000

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-7 (IPA)

Lab ID#: 1104092B-08A

EPA METHOD TO-15 GC/MS

File Name:	**b041520**	**Date of Collection: 4/1/11 4:44:00 PM**	
Dil. Factor:	**7.67**	**Date of Analysis: 4/15/11 06:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	150	38000	380	93000

Container Type: PAC250 Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1104092B-09A

EPA METHOD TO-15 GC/MS

File Name:	**b041508**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/15/11 11:23 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	20	Not Detected	49	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
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Client Sample ID: CCV

Lab ID#: 1104092B-10A

EPA METHOD TO-15 GC/MS

File Name:	**b041503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/15/11 08:44 AM**	

Compound	**%Recovery**
2-Propanol	86

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1104092B-11A

EPA METHOD TO-15 GC/MS

File Name:	**b041505**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/15/11 09:57 AM**	

Compound	**%Recovery**
2-Propanol	76

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.
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Client Sample ID: LCSD

Lab ID#: 1104092B-11AA

EPA METHOD TO-15 GC/MS

File Name:	**b041506**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/15/11 10:24 AM**	

Compound	**%Recovery**
2-Propanol	74

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.
Laboratory Services Since 1989

12/27/2011
Ms. Olivia Jacobs
Clearwater Group, Inc.
229 Tewksbury Avenue

Point Richmond CA 94801

Project Name: 1125 Miller
Project #:
Workorder #: 1112267

Dear Ms. Olivia Jacobs

The following report includes the data for the above referenced project for sample(s) received on 12/13/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1112267

Work Order Summary

CLIENT:	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801	**BILL TO:**	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801
PHONE:	510-307-9943	**P.O. #**	
FAX:		**PROJECT #**	1125 Miller
DATE RECEIVED:	12/13/2011	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	12/27/2011		

FRACTION #	NAME	TEST
01A	SS-10	Modified TO-17 VI
02A	SS-9	Modified TO-17 VI
03A	SS-8	Modified TO-17 VI
04A	SS-5	Modified TO-17 VI
05A	SS-4	Modified TO-17 VI
06A	SS-3	Modified TO-17 VI
07A	SS-2	Modified TO-17 VI
08A	SS-1	Modified TO-17 VI
09A	SS-6	Modified TO-17 VI
10A	SS-7	Modified TO-17 VI
11A	TRIP BLANK	Modified TO-17 VI
12A	Lab Blank	Modified TO-17 VI
13A	CCV	Modified TO-17 VI
14A	LCS	Modified TO-17 VI
14AA	LCSD	Modified TO-17 VI

CERTIFIED BY: Linda D. Fruman DATE: 12/27/11

Laboratory Director

Certfication numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089,
NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.
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
EPA Method TO-17
Clearwater Group, Inc.
Workorder# 1112267

Ten TO-17 VI Tube samples plus one Trip Blank were received on December 13, 2011. The laboratory performed the analysis via EPA Method TO-17 using GC/MS in the full scan mode. TO-17 sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for further separation.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A sampling volume of 0.200 L was used to convert ng to ug/m3 for the associated Lab Blank and sample TRIP BLANK.

The reported CCV and LCS for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

The TPH pattern in sample SS-4 did not resemble that of diesel fuel. The hydrocarbons were distributed in the lighter carbon range of diesel.

The recovery of internal standard 4-Bromofluorobenzene in sample TRIP BLANK was outside control limits. Data is reported as qualified.

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 and/or LCS.
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

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: SS-10

Lab ID#: 1112267-01A

No Detections Were Found.

Client Sample ID: SS-9

Lab ID#: 1112267-02A

No Detections Were Found.

Client Sample ID: SS-8

Lab ID#: 1112267-03A

No Detections Were Found.

Client Sample ID: SS-5

Lab ID#: 1112267-04A

No Detections Were Found.

Client Sample ID: SS-4

Lab ID#: 1112267-05A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range)	1000	5000	1900	9500

Client Sample ID: SS-3

Lab ID#: 1112267-06A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	0.74	3.7
1-Methylnaphthalene	0.50	2.5	1.6	8.0

Client Sample ID: SS-2

Lab ID#: 1112267-07A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: SS-1

Lab ID#: 1112267-08A

No Detections Were Found.

Client Sample ID: SS-6

Lab ID#: 1112267-09A

No Detections Were Found.

Client Sample ID: SS-7

Lab ID#: 1112267-10A

No Detections Were Found.

Client Sample ID: TRIP BLANK

Lab ID#: 1112267-11A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-10

Lab ID#: 1112267-01A

EPA METHOD TO-17

File Name:	**16121718**	**Date of Extraction: NA**	**Date of Collection: 12/8/11 11:36:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 11:49 AM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	62	50-150
Toluene-d8	80	50-150
Naphthalene-d8	101	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-9

Lab ID#: 1112267-02A

EPA METHOD TO-17

File Name:	**16121719**	**Date of Extraction: NA**	**Date of Collection: 12/8/11 12:33:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 12:27 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	50-150
Toluene-d8	95	50-150
Naphthalene-d8	97	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-8

Lab ID#: 1112267-03A

EPA METHOD TO-17

File Name:	**16121720**	**Date of Extraction: NA**	**Date of Collection: 12/8/11 1:26:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 01:05 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	50-150
Toluene-d8	99	50-150
Naphthalene-d8	100	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-5

Lab ID#: 1112267-04A

EPA METHOD TO-17

File Name:	**16121721**	**Date of Extraction: NA**	**Date of Collection: 12/8/11 2:43:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 01:43 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	50-150
Toluene-d8	98	50-150
Naphthalene-d8	101	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-4

Lab ID#: 1112267-05A

EPA METHOD TO-17

File Name:	**16121722**	**Date of Extraction: NA**	**Date of Collection: 12/8/11 3:26:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 02:21 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	1900	9500

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	50-150
Toluene-d8	104	50-150
Naphthalene-d8	105	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-3

Lab ID#: 1112267-06A

EPA METHOD TO-17

File Name:	**16121723**	**Date of Extraction: NA**	**Date of Collection: 12/8/11 4:13:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 02:59 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	0.74	3.7
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	1.6	8.0
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	50-150
Toluene-d8	88	50-150
Naphthalene-d8	68	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-2

Lab ID#: 1112267-07A

EPA METHOD TO-17

File Name:	**16121724**	**Date of Extraction: NA**	**Date of Collection: 12/9/11 2:02:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 03:50 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	50-150
Toluene-d8	94	50-150
Naphthalene-d8	84	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-1

Lab ID#: 1112267-08A

EPA METHOD TO-17

File Name:	**16121725**	**Date of Extraction: NA**	**Date of Collection: 12/9/11 2:45:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 04:56 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	50-150
Toluene-d8	100	50-150
Naphthalene-d8	104	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-6

Lab ID#: 1112267-09A

EPA METHOD TO-17

File Name:	**16121726**	**Date of Extraction: NA**	**Date of Collection: 12/9/11 3:31:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 05:46 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	50-150
Toluene-d8	97	50-150
Naphthalene-d8	96	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-7

Lab ID#: 1112267-10A

EPA METHOD TO-17

File Name:	**16121727**	**Date of Extraction: NA**	**Date of Collection: 12/9/11 4:16:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 06:24 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	50-150
Toluene-d8	96	50-150
Naphthalene-d8	99	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: TRIP BLANK

Lab ID#: 1112267-11A

EPA METHOD TO-17

File Name:	**16121717**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 11:11 AM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected J	Not Detected J
2-Methylnaphthalene	0.50	2.5	Not Detected J	Not Detected J
1-Methylnaphthalene	0.50	2.5	Not Detected J	Not Detected J
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	50-150
Toluene-d8	114	50-150
Naphthalene-d8	128	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1112267-12A

EPA METHOD TO-17

File Name:	**16121716**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 09:26 AM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
2-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
1-Methylnaphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	50-150
Toluene-d8	103	50-150
Naphthalene-d8	85	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV
Lab ID#: 1112267-13A
EPA METHOD TO-17

File Name:	**16121705a**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 12/16/11 09:51 PM**

Compound	%Recovery
Naphthalene	84
2-Methylnaphthalene	97
1-Methylnaphthalene	97
TPH (Diesel Range)	108

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	50-150
Toluene-d8	102	50-150
Naphthalene-d8	85	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS
Lab ID#: 1112267-14A
EPA METHOD TO-17

File Name:	**16121713**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 03:27 AM**

Compound	%Recovery
Naphthalene	93
2-Methylnaphthalene	113
1-Methylnaphthalene	111
TPH (Diesel Range)	130

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	50-150
Toluene-d8	109	50-150
Naphthalene-d8	86	50-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD
Lab ID#: 1112267-14AA
EPA METHOD TO-17

File Name:	**16121714**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 12/17/11 04:06 AM**

Compound	%Recovery
Naphthalene	98
2-Methylnaphthalene	118
1-Methylnaphthalene	117
TPH (Diesel Range)	119

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	50-150
Toluene-d8	108	50-150
Naphthalene-d8	90	50-150

Air Toxics LTD.
Laboratory Services Since 1989

12/20/2011
Ms. Olivia Jacobs
Clearwater Group, Inc.
229 Tewksbury Avenue

Point Richmond CA 94801

Project Name: 1125 Miller
Project #:
Workorder #: 1112268A

Dear Ms. Olivia Jacobs

The following report includes the data for the above referenced project for sample(s) received on 12/13/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1112268A

Work Order Summary

CLIENT:	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801	**BILL TO:**	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801
PHONE:	510-307-9943	**P.O. #**	
FAX:		**PROJECT #**	1125 Miller
DATE RECEIVED:	12/13/2011	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	12/20/2011		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SS-10	Modified TO-15	3.5 "Hg	5 psi
02A	SS-9	Modified TO-15	5.0 "Hg	5 psi
03A	SS-8	Modified TO-15	5.5 "Hg	5 psi
04A	SS-5	Modified TO-15	4.0 "Hg	5 psi
05A	SS-4	Modified TO-15	4.0 "Hg	5 psi
06A	SS-3	Modified TO-15	4.5 "Hg	5 psi
07A	SS-2	Modified TO-15	4.5 "Hg	5 psi
08A	SS-1	Modified TO-15	4.0 "Hg	5 psi
09A	SS-6	Modified TO-15	4.5 "Hg	5 psi
10A	SS-7	Modified TO-15	4.0 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Linda D. Frumarn DATE: 12/20/11

Laboratory Director

Certfication numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089,
NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.
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
EPA Method TO-15
Clearwater Group, Inc.
Workorder# 1112268A

Ten 1 Liter Summa Canister and one PAC250 Canister samples were received on December 13, 2011. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

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.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

TPH gasoline was detected at a concentration less than 5 times the reporting limit in sample SS-7. Because the preceding sample contained high concentration of TPH gasoline, the result for TPH gasoline in sample SS-7 may be biased high for possible carry-over. A re-analysis of sample SS-7 was not possible due to insufficient sample volume.

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 and/or LCS.
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

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: SS-10

Lab ID#: 1112268A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.76	12	2.4	37
Toluene	0.76	42	2.9	160
Ethyl Benzene	0.76	8.5	3.3	37
m,p-Xylene	0.76	31	3.3	140
o-Xylene	0.76	16	3.3	68
TPH ref. to Gasoline (MW=100)	38	470	160	1900

Client Sample ID: SS-9

Lab ID#: 1112268A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	40	75	160	310

Client Sample ID: SS-8

Lab ID#: 1112268A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	41	82	170	340

Client Sample ID: SS-5

Lab ID#: 1112268A-04A

No Detections Were Found.

Client Sample ID: SS-4

Lab ID#: 1112268A-05A

No Detections Were Found.

Client Sample ID: SS-3

Lab ID#: 1112268A-06A

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: SS-3

Lab ID#: 1112268A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.79	1.0	3.0	3.8
Ethyl Benzene	0.79	4.4	3.4	19
m,p-Xylene	0.79	15	3.4	66
o-Xylene	0.79	12	3.4	53
TPH ref. to Gasoline (MW=100)	40	2800	160	12000

Client Sample ID: SS-2

Lab ID#: 1112268A-07A

No Detections Were Found.

Client Sample ID: SS-1

Lab ID#: 1112268A-08A

No Detections Were Found.

Client Sample ID: SS-6

Lab ID#: 1112268A-09A

No Detections Were Found.

Client Sample ID: SS-7

Lab ID#: 1112268A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	39	130	160	520

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-10

Lab ID#: 1112268A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121514**	**Date of Collection: 12/8/11 11:14:00 AM**	
Dil. Factor:	**1.52**	**Date of Analysis: 12/15/11 07:29 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	3.0	Not Detected	7.5	Not Detected
Methyl tert-butyl ether	0.76	Not Detected	2.7	Not Detected
Benzene	0.76	12	2.4	37
Toluene	0.76	42	2.9	160
Ethyl Benzene	0.76	8.5	3.3	37
m,p-Xylene	0.76	31	3.3	140
o-Xylene	0.76	16	3.3	68
tert-Butyl alcohol	3.0	Not Detected	9.2	Not Detected
Ethyl-tert-butyl ether	3.0	Not Detected	13	Not Detected
Isopropyl ether	3.0	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.0	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	38	470	160	1900

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-9

Lab ID#: 1112268A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121515**	**Date of Collection: 12/8/11 12:23:00 PM**	
Dil. Factor:	**1.61**	**Date of Analysis: 12/15/11 07:52 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	3.2	Not Detected	7.9	Not Detected
Methyl tert-butyl ether	0.80	Not Detected	2.9	Not Detected
Benzene	0.80	Not Detected	2.6	Not Detected
Toluene	0.80	Not Detected	3.0	Not Detected
Ethyl Benzene	0.80	Not Detected	3.5	Not Detected
m,p-Xylene	0.80	Not Detected	3.5	Not Detected
o-Xylene	0.80	Not Detected	3.5	Not Detected
tert-Butyl alcohol	3.2	Not Detected	9.8	Not Detected
Ethyl-tert-butyl ether	3.2	Not Detected	13	Not Detected
Isopropyl ether	3.2	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.2	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	40	75	160	310

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-8

Lab ID#: 1112268A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121516**	**Date of Collection: 12/8/11 1:17:00 AM**	
Dil. Factor:	**1.64**	**Date of Analysis: 12/15/11 08:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	3.3	Not Detected	8.1	Not Detected
Methyl tert-butyl ether	0.82	Not Detected	3.0	Not Detected
Benzene	0.82	Not Detected	2.6	Not Detected
Toluene	0.82	Not Detected	3.1	Not Detected
Ethyl Benzene	0.82	Not Detected	3.6	Not Detected
m,p-Xylene	0.82	Not Detected	3.6	Not Detected
o-Xylene	0.82	Not Detected	3.6	Not Detected
tert-Butyl alcohol	3.3	Not Detected	9.9	Not Detected
Ethyl-tert-butyl ether	3.3	Not Detected	14	Not Detected
Isopropyl ether	3.3	Not Detected	14	Not Detected
tert-Amyl methyl ether	3.3	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	41	82	170	340

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-5

Lab ID#: 1112268A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121517**	**Date of Collection: 12/8/11 2:34:00 AM**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/15/11 08:32 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	3.1	Not Detected	7.6	Not Detected
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
Benzene	0.78	Not Detected	2.5	Not Detected
Toluene	0.78	Not Detected	2.9	Not Detected
Ethyl Benzene	0.78	Not Detected	3.4	Not Detected
m,p-Xylene	0.78	Not Detected	3.4	Not Detected
o-Xylene	0.78	Not Detected	3.4	Not Detected
tert-Butyl alcohol	3.1	Not Detected	9.4	Not Detected
Ethyl-tert-butyl ether	3.1	Not Detected	13	Not Detected
Isopropyl ether	3.1	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.1	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	39	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-4

Lab ID#: 1112268A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121518**	**Date of Collection: 12/8/11 3:19:00 AM**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/15/11 08:53 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	3.1	Not Detected	7.6	Not Detected
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
Benzene	0.78	Not Detected	2.5	Not Detected
Toluene	0.78	Not Detected	2.9	Not Detected
Ethyl Benzene	0.78	Not Detected	3.4	Not Detected
m,p-Xylene	0.78	Not Detected	3.4	Not Detected
o-Xylene	0.78	Not Detected	3.4	Not Detected
tert-Butyl alcohol	3.1	Not Detected	9.4	Not Detected
Ethyl-tert-butyl ether	3.1	Not Detected	13	Not Detected
Isopropyl ether	3.1	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.1	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	39	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-3

Lab ID#: 1112268A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121522**	**Date of Collection: 12/8/11 4:05:00 AM**	
Dil. Factor:	**1.58**	**Date of Analysis: 12/15/11 10:29 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	3.2	Not Detected	7.8	Not Detected
Methyl tert-butyl ether	0.79	Not Detected	2.8	Not Detected
Benzene	0.79	Not Detected	2.5	Not Detected
Toluene	0.79	1.0	3.0	3.8
Ethyl Benzene	0.79	4.4	3.4	19
m,p-Xylene	0.79	15	3.4	66
o-Xylene	0.79	12	3.4	53
tert-Butyl alcohol	3.2	Not Detected	9.6	Not Detected
Ethyl-tert-butyl ether	3.2	Not Detected	13	Not Detected
Isopropyl ether	3.2	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.2	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	40	2800	160	12000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-2

Lab ID#: 1112268A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121519**	**Date of Collection: 12/9/11 1:52:00 AM**	
Dil. Factor:	**1.58**	**Date of Analysis: 12/15/11 09:17 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	3.2	Not Detected	7.8	Not Detected
Methyl tert-butyl ether	0.79	Not Detected	2.8	Not Detected
Benzene	0.79	Not Detected	2.5	Not Detected
Toluene	0.79	Not Detected	3.0	Not Detected
Ethyl Benzene	0.79	Not Detected	3.4	Not Detected
m,p-Xylene	0.79	Not Detected	3.4	Not Detected
o-Xylene	0.79	Not Detected	3.4	Not Detected
tert-Butyl alcohol	3.2	Not Detected	9.6	Not Detected
Ethyl-tert-butyl ether	3.2	Not Detected	13	Not Detected
Isopropyl ether	3.2	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.2	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	40	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-1

Lab ID#: 1112268A-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121520**	**Date of Collection: 12/9/11 2:37:00 AM**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/15/11 09:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	3.1	Not Detected	7.6	Not Detected
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
Benzene	0.78	Not Detected	2.5	Not Detected
Toluene	0.78	Not Detected	2.9	Not Detected
Ethyl Benzene	0.78	Not Detected	3.4	Not Detected
m,p-Xylene	0.78	Not Detected	3.4	Not Detected
o-Xylene	0.78	Not Detected	3.4	Not Detected
tert-Butyl alcohol	3.1	Not Detected	9.4	Not Detected
Ethyl-tert-butyl ether	3.1	Not Detected	13	Not Detected
Isopropyl ether	3.1	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.1	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	39	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-6

Lab ID#: 1112268A-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121521**	**Date of Collection: 12/9/11 3:22:00 AM**	
Dil. Factor:	**1.58**	**Date of Analysis: 12/15/11 10:06 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	3.2	Not Detected	7.8	Not Detected
Methyl tert-butyl ether	0.79	Not Detected	2.8	Not Detected
Benzene	0.79	Not Detected	2.5	Not Detected
Toluene	0.79	Not Detected	3.0	Not Detected
Ethyl Benzene	0.79	Not Detected	3.4	Not Detected
m,p-Xylene	0.79	Not Detected	3.4	Not Detected
o-Xylene	0.79	Not Detected	3.4	Not Detected
tert-Butyl alcohol	3.2	Not Detected	9.6	Not Detected
Ethyl-tert-butyl ether	3.2	Not Detected	13	Not Detected
Isopropyl ether	3.2	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.2	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	40	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-7

Lab ID#: 1112268A-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121523**	**Date of Collection: 12/9/11 4:07:00 AM**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/15/11 10:50 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	3.1	Not Detected	7.6	Not Detected
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
Benzene	0.78	Not Detected	2.5	Not Detected
Toluene	0.78	Not Detected	2.9	Not Detected
Ethyl Benzene	0.78	Not Detected	3.4	Not Detected
m,p-Xylene	0.78	Not Detected	3.4	Not Detected
o-Xylene	0.78	Not Detected	3.4	Not Detected
tert-Butyl alcohol	3.1	Not Detected	9.4	Not Detected
Ethyl-tert-butyl ether	3.1	Not Detected	13	Not Detected
Isopropyl ether	3.1	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.1	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	39	130	160	520

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1112268A-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121508**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/15/11 04:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	2.0	Not Detected	4.9	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1112268A-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/15/11 12:25 PM**	

Compound	%Recovery
2-Propanol	102
Methyl tert-butyl ether	102
Benzene	99
Toluene	96
Ethyl Benzene	98
m,p-Xylene	100
o-Xylene	100
tert-Butyl alcohol	97
Ethyl-tert-butyl ether	99
Isopropyl ether	100
tert-Amyl methyl ether	99
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1112268A-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/15/11 12:43 PM**	

Compound	%Recovery
2-Propanol	102
Methyl tert-butyl ether	103
Benzene	100
Toluene	96
Ethyl Benzene	98
m,p-Xylene	100
o-Xylene	100
tert-Butyl alcohol	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked
tert-Amyl methyl ether	Not Spiked
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 1112268A-13AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o121504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/15/11 01:01 PM**	

Compound	%Recovery
2-Propanol	103
Methyl tert-butyl ether	103
Benzene	101
Toluene	97
Ethyl Benzene	98
m,p-Xylene	100
o-Xylene	99
tert-Butyl alcohol	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked
tert-Amyl methyl ether	Not Spiked
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

12/17/2011
Ms. Olivia Jacobs
Clearwater Group, Inc.
229 Tewksbury Avenue

Point Richmond CA 94801

Project Name: 1125 Miller
Project #:
Workorder #: 1112268B

Dear Ms. Olivia Jacobs

The following report includes the data for the above referenced project for sample(s) received on 12/13/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 (5&20 ppbv) are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1112268B

Work Order Summary

CLIENT:	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801	**BILL TO:**	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801
PHONE:	510-307-9943	**P.O. #**	
FAX:		**PROJECT #**	1125 Miller
DATE RECEIVED:	12/13/2011	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	12/17/2011		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
11A	SS-7 (IPA)	Modified TO-15 (5&20 ppbv	1.7 "Hg	15 psi
12A	Lab Blank	Modified TO-15 (5&20 ppbv	NA	NA
13A	CCV	Modified TO-15 (5&20 ppbv	NA	NA
14A	LCS	Modified TO-15 (5&20 ppbv	NA	NA
14AA	LCSD	Modified TO-15 (5&20 ppbv	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 12/17/11

Laboratory Director

Certfication numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089,
NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.
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
EPA Method TO-15 Soil Gas
Clearwater Group, Inc.
Workorder# 1112268B

One PAC250 Canister sample was received on December 13, 2011. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 50 mLs 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.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on sample SS-7 (IPA) due to the presence of high level target species.

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 and/or LCS.

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

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: SS-7 (IPA)

Lab ID#: 1112268B-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	140	8100	350	20000

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-7 (IPA)

Lab ID#: 1112268B-11A

EPA METHOD TO-15 GC/MS

File Name:	**14121332**	**Date of Collection: 12/9/11 4:07:00 AM**	
Dil. Factor:	**7.10**	**Date of Analysis: 12/14/11 09:55 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	140	8100	350	20000

Container Type: PAC250 Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1112268B-12A

EPA METHOD TO-15 GC/MS

File Name:	**14121307**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/13/11 02:03 PM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ug/m3)**
2-Propanol	20	Not Detected	49	Not Detected

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1112268B-13A

EPA METHOD TO-15 GC/MS

File Name:	**14121302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/13/11 11:54 AM**	

Compound	**%Recovery**
2-Propanol	102

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1112268B-14A

EPA METHOD TO-15 GC/MS

File Name:	**14121304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/13/11 12:55 PM**	

Compound	**%Recovery**
2-Propanol	114

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 1112268B-14AA

EPA METHOD TO-15 GC/MS

File Name:	**14121305**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/13/11 01:17 PM**	

Compound	**%Recovery**
2-Propanol	114

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

12/20/2011
Ms. Olivia Jacobs
Clearwater Group, Inc.
229 Tewksbury Avenue

Point Richmond CA 94801

Project Name: 1125 Miller
Project #:
Workorder #: 1112268C

Dear Ms. Olivia Jacobs

The following report includes the data for the above referenced project for sample(s) received on 12/13/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1945 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1112268C

Work Order Summary

CLIENT:	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801	**BILL TO:**	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801
PHONE:	510-307-9943	**P.O. #**	
FAX:		**PROJECT #**	1125 Miller
DATE RECEIVED:	12/13/2011	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	12/20/2011		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
06A	SS-3	Modified ASTM D-1945	4.5 "Hg	5 psi
07A	Lab Blank	Modified ASTM D-1945	NA	NA
08A	LCS	Modified ASTM D-1945	NA	NA
08AA	LCSD	Modified ASTM D-1945	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 12/20/11

Laboratory Director

Certfication numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089,
NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.
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 ASTM D-1945
Clearwater Group, Inc.
Workorder# 1112268C

One 1 Liter Summa Canister sample was received on December 13, 2011. The laboratory performed analysis via modified ASTM Method D-1945 for Propane in natural gas using GC/FID. The method involves direct injection of 1.0 mL of sample.

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

Requirement	*ASTM D-1945*	*ATL Modifications*
Normalization	Sum of original values should not differ from 100.0% by more than 1.0%.	Sum of original values may range between 85-115%. Normalization of data not performed.
Sample analysis	Equilibrate samples to 20-50° F. above source temperature at field sampling	No heating of samples is performed.
Sample calculation	Response factor is calculated using peak height for C5 and lighter compounds.	Peak areas are used for all target analytes to quantitate concentrations.
Reference Standard	Concentration should not be < half of nor differ by more than 2 X the concentration of the sample. Run 2 consecutive checks; must agree within 1%.	A minimum 3-point linear calibration is performed. The acceptance criterion is %RSD </= 15%. All target analytes must be within the linear range of calibration (with the exception of O2, N2, and C6+ Hydrocarbons).
Sample Injection Volume	0.50 mL to achieve Methane linearity.	1.0 mL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:
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 detection limit.
M - Reported value may be biased due to apparent matrix interferences.

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

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: SS-3

Lab ID#: 1112268C-06A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SS-3

Lab ID#: 1112268C-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9121410**	**Date of Collection: 12/8/11 4:05:00 AM**	
Dil. Factor:	**1.58**	**Date of Analysis: 12/14/11 03:42 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Propane	0.0016	Not Detected

Container Type: 1 Liter Summa Canister

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1112268C-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9121404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/14/11 10:28 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Propane	0.0010	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1112268C-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9121402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/14/11 09:32 AM**	

Compound	**%Recovery**
Propane	95

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 1112268C-08AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9121423**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/14/11 09:48 PM**	

Compound	%Recovery
Propane	94

Container Type: NA - Not Applicable

ATTACHMENT E

SVC Environmental, Inc. — Field Notes

Client: _____
Facility: 1125 Miller Ave. Oakland.
Address: _____
Weather: _____

Project Number: CW-01
Date: April 1, 2011
Time Arrived: _____
Time Departed: _____

Time	Notes and Description of Activities
	Set up valves at each of the probe locations in the off position
11:30	Set up on SS-5 and leak checked from 16.99" Hg held to 16.91 after 10 minutes; sufficiently tight
1143	Began purge from 17.70 to 4.70" Hg ~430mL purge. 16 drops IPA in shroud. Begin sampling from 28.87" Hg. Log #1108
1158	

	18.13		1202		1203		1204	1205
time		14.9	12.9	10.4	9.0	7.3	5.8	4.00
ppmV		20	17.4	5.2	2.0	X	3.1	2.0

Note; IPA in line of shroud; negated initial high PID readings.

1217	Set up TO17 sorbent tube directly to purged & sampled SS-5 and leak checked by observing plunger of syringe to return, then withdrew 200mL over 3 minutes
1233	Set up and leak checked SS-4 from 20.85" Hg Held to 20.77 after 17 minutes; Tight.
1250	Began purge from 22.22" Hg and ended at 5.00" Hg so 573mL purge.
1258	14 drops IPA in shroud. Begin sampling from 28.88" Hg Log # 1113

Time	1259		1300		1301		1302		1303
"Hg	26.4	21	—	15.2	14.1	11.9	10.3	8.6	7.2
ppmV	0.0	0.0	—	5.0	18.2	16.8	15.6	19.2	19.1

Time	:	1304	End	Average = 8.9 ppm
"Hg	6.1	4.80		Peak = 22.7
ppmV	20.7	22.7		Run time = 5 min

SVC Environmental, Inc. — Field Notes

Client: Clearwater
Facility:
Address: 1125 Miller Ave Oakland
Weather:

Project Number: CW-01
Date: 4-1-11
Time Arrived:
Time Departed:

Time	Notes and Description of Activities
1327	Set up on SS-4 w sorbent TO17 tube & sampled ~~to 19.26" after~~ previous ~ 200mL over 3 minutes and 1330
1321	Set up SS-3 and leak checked 19.31" Hg; held to 19.25" Hg after 13 minutes; began purge from 20.59 @ 1336 to 5.00" Hg @ 1341; ~ 520mL purge. 10 drops IPA within shroud; Log # 1114
1342	begin sampling from 28.23" Hg.

Time	1343		1344		1345		1346		1347
"Hg	23.4	20.8	16.9	15.4	12.9	11.4	9.9	8.1	7.0
ppm	0.0	0.0	7.1	2.0	4.1	3.5	4.4	5.4	6.5

Time		1348 end	Ave 3.0 ppm
"Hg	5.6	4.74	Peak = 10.3
ppm	7.7	8.3	Runtime = 5min

1406	Collected TO17 sample as previous from SS-3, 200mL.
1402	Set up SS-2 & leak checked from 22.43" Hg ended after 10 minutes @ 20.39" Hg - tight.
1413	Began purge from 22.12" Hg, ended @ 5.00" Hg ~ 570mL purge.
1419	10 drops IPA w/in shroud began from 28.25" Log # 1115

Time	1420		1421		1422		1423		1424
"Hg	24.6	22.5	18.5	17.3	14.7	12.5	10.6	8.8	7.1	6.0
ppmv	0.0	0.0	5.0	7.3	8.7	7.5	4.1	4.6	4.5	5.1

Time		1425	Ave = 4.3 ppm
"Hg	5.1	4.6	Peak = 10.3 ppm
ppmv	6.4	6.4	Run time = 5min.

1444 Collected TO17 sample as previous. 200mL over 3min.

SVC Environmental, Inc. — Field Notes

Client: Clearwater
Facility: 1
Address: 1125 miller Ave, Oakland
Weather:

Project Number: CW-01
Date: 4-1-11
Time Arrived:
Time Departed:

Time	Notes and Description of Activities
1437	Set up SS-1 & leak checked -20.16 "Hg held after 10min to 20.10 "Hg Began Purge from 22.11 @ 1452. Ended purge @ 5.00 "Hg. and put dropper within after seeing 0ppm
1502	10 drops IPA in shroud begin from 28.47 "Hg
	Log 1116
Time	1504 1505 1506 1507 1508 1509 End
"Hg	20.5 14.9 11.9 8.4 6.4 4.45 Ave=0
ppm	0.0 0.0 0.0 0.0 0.0 0.0 Peak=0
	Note PID recalibrated after not functional during sample - replaced batteries & recalibrated. Runtime = 6min
1539	collected TO17 sample from SS-1
1527	Set up SS-6 and leak checked from 20.00 "Hg - held to 19.90 after 10 minutes.
1545	Began purge from 21.81 "Hg to 2.0 "Hg w 660mL purge.
	10 drops IPA within shroud; begin
1557	Sampling from 28.88 "Hg Log #. 1118
Time	1558 1559 1600 1601 1602 1603
"Hg	25.7 22.8 20.3 17.6 15.0 12.8 10.8 9.0 7.3 4.80
ppmV	3.2 3.4 3.5 4.9 8.0 14.8 22.5 23.8 24.0 29.0
	Ave = 14.0 Peak = 22.2 Runtime = 5min
1623	TO17 sorbent collected on before from SS-6
1618	Set up SS-7 & leak checked 19.72 "Hg ended @ 19.67 after 10 minutes; tight. began purge from 22.2 @ 1630
	ended purge @ 3.60 "Hg. 1636 "Hg.
	Begin sample from 28.88 "Hg with 10 drops IPA. end shroud sample.
1640	1641 1642 1643 1644
"Hg	25.6 23.1 20.0 17.9 15.3 13.0 10.7 9.2
ppm	1.4 1.5 5.1 4.6 5.1 5.4 6.0 6.5 7.2 7.1 7.6 8.1
Time	1645 1646 End Ave=6.5ppmV
"Hg	7.5 6.2 5.1 4.50 Peak=16.3ppm
ppm	10.3 13.3 15.9 Run time = 5min
	TO17 @ 1703

Field Notes

Client: Clearwater
Facility:
Address: 1125 Miller Ave Oakland
Weather: Sunny, warm

Project Number: Clearwater
Date: 12-8-11
Time Arrived: 10AM
Time Departed:

Time	Notes and Description of Activities
1040	Set up and leak checked SS-10 from -23.34" Hg
	Held tight after 10 minutes & increased vac to -23.39" Hg due to T°
1100	Began purge from -28.18" Hg ended at 13.18" Hg after 3 minutes ; 500mL purge.
1108	Begin sampling from -29.54" Hg with 6 drops IPA in shroud log #1361

Time	1109	1110	1111	1112	1113	1114
"Hg	-25.3	21.8	17.8	17.1	19.7	12.7	10.6	9.0	7.3	6.1	5.0
ppmv	3.5	3.1	3.9	3.9	4.5	3.7	5.7	4.2	5.1	5.4	6.9

End 4.35" Hg. Ave = 3.8 ppm Peak = 7.1 ppm Run Time = 5 min

	Set up TO 17 sorbent tube & leak checked - ok SS-10
1133	200mL extracted three sorbent tube over 3 minutes utilizing mL syringe.
1155	Set up & leak checked SS-9 from -21.06" Hg.
	Held sufficiently tight after 10 minutes & increased to -21.08" Hg.
1212	Began purge -22.24" Hg ; ended @ 7.24" Hg for 500mL purge. after 3.5 minutes
1218	Begin sampling from -29.38" Hg with 7 drops IPA in shroud log 1362.

Time	1219	1220	1221	1222	1223		1224
"Hg	25.5	22.7	19.4	17.2	14.8	12.6	10.6	8.7	7.2	6.0	4.70	End
ppmv	3.8	4.0	4.2	5.7	6.2	6.0	6.2	6.6	6.6	7.4	6.9	

Ave = 5.1 ppmv Peak = 8.0 ppm Run time = 5 min.

12:30	Set up & drew after leak checking 200mL from SS-9 then TO17 tube. completed after 3 minutes
Set up	and leak checked SS-8 from 16.23" Hg - held tight
1030	and increased vac after 10 minutes to -16.31" Hg due to T° Δ. Began purge from -16.46" Hg and completed to -3.46" Hg at 1:08 pm for 433mL purge.

Field Notes

Client: _____ Project Number: _____
Facility: _____ Date: 12-8-11
Address: 1125 Millers Ave, Oakland Time Arrived: _____
Weather: _____ Time Departed: _____

Time	Notes and Description of Activities
	SS-8 continued
1:12	Begin sampling from -29.28" w 7 drops IPA in shroud log 1663
Time	1:13 1:14 1:15 1:16 **1:17** End Ave = 7.0 ppm
"Hg	25.0 22.3 18.9 15.4 12.2 10.1 8.0 **5.60** Peak = 15.1
ppmV	3.2 6.5 7.3 6.7 7.2 5.6 10.3 **8.1** Run time = 4 min.
1:23	Set up, leak checked & drew 200mL thru TO17 tube @ SS-8 over 3 minutes -
2:10	Set up SS-5 and leak checked from -19.10" Hg Held tight to 19.08" after 10 minutes.
2:23	Began purge from 22.25" Hg and completed to 7.25" Hg after 3.5 minutes ~~@ 250 mL~~ for 500 mL purge.
2:28	Begin sampling from -29.25" Hg w 7 drops IPA log 1664
Time	229 2:30 2:31 2:32 2:33
"Hg	22.7 20.0 17.1 14.8 13.3 11.3 9.6 8.1 6.7
ppmV	10.1 9.1 12.2 13.4 14.5 21.5 19.3 21.9 20.3
Time	**2:34** End Ave 13.5 ppm
"Hg	5.7 **4.86** Peak = 27.0
ppmV	22.9 **22.5** Run time = 5 min.
2:40	Leak checked then drew 200 mL vapor thru TO17 tube over 3 min
2:55	Set up SS-4 and leak checked from -16.97" Hg; held tight after 10 minutes to -16.97" Hg
3:07	Begin purge from -22.39" Hg and completed to 7.00" Hg to complete ~~250~~ mL purge.
3:12	Begin sampling w 5 drops IPA from 28.98" Hg; log 1365
Time	313 314 315 316 317
"Hg	25.2 22.8 19.9 18.0 15.8 13.5 11.7 10.1 8.7
ppmV	3.5 8.1 9.2 11.2 13.1 15.2 20.8 20.8 21.2
Time	318 **319** End Ave = 16.1 ppmV
"Hg	7.7 6.4 5.5 **4.64** Peak = 24.2 ppmV
ppmV	21.1 23.7 20.8 **19.2** Run time = 5 min

Aaron: 510 910 4176

Field Notes

Client: Clearwater
Facility: Miller Avenue, Oakland
Address:
Weather:

Project Number: AVG-01
Date: 12-8-11
Time Arrived: 1PM 12-9-11
Time Departed:

Time	Notes and Description of Activities
3:40	Set up & leak checked SS-3 from -19.91" Hg Held tight after 10 minutes to 19.85" Hg.
3:52	Began purge from -22.29" Hg. and ended @ 7.29" Hg for 500 mL purge by 3:56.
3:59	Begin sampling from -29.30" Hg w 4 drops IPA
Time	4:00 4:01 4:02 4:03 4:04 4:05
"Hg	26.1 23.7 18.8 16.7 14.3 12.4 10.6 8.1 6.8 5.7
ppmv	2.5 2.7 7.6 7.8 8.2 9.4 11.1 13.8 14.8 15.7
	4:05 End 5.00 "Hg 16.3 ppmv Ave = 7.8 ppm peak = 16.3 ppm 5 min run time
4:10	Set up leak checked and withdrew 200mL from SS-3 over 3 min.
	12-9-2011
1:25	Set up and leak checked SS-2 from -19.07" Hg
1:35	also set remainder of valves to subslab ports Held sufficiently tight after 10 minutes to 18.97" Hg.
1:40	Begin purge from -22.02" Hg; ended at 4.8" Hg after 4 minutes, 573 mL purge.
1:47	Begin sampling SS-2 from 29.16" Hg with 5 drops IPA log #367.
Time	1:48 1:49 1:50 1:51 1:52 End
"Hg	23.0 19.5 16.7 12.3 8.2 6.8 5.24 Ave = 12.9 ppm
ppmv	2.5 11.2 10.7 22.1 23.4 22.5 22.9 Peak = 23.7 ppm
1:59	Leak check TO17 syringe & withdraw 200 mL over 3 minutes. Run time = 4 min.
2:15	Set up & leak checked SS-1 from -19.28" Hg. held tight after 10 minutes to -19.26" Hg.
2:25	Begin purge from -22.01" Hg and completed to 7.01" after minutes; 500mL purged after 4 minutes.
2:31	Begin sampling from -29.10" Hg. w ~4 drops IPA Log #1368
Time	2:33 2:34 2:35 2:36 2:37 difficult to see in dark room light.
"Hg	19.4 16.9 14.5 12.5 – 9.2 7.6 6.4 5.10
ppmv	2.2 2.1 2.3 2.4 – 2.2 2.2 2.2 2.2
	Ave = 2.0 ppm Peak = 2.5 ppm Run time = 5 min

Field Notes

Client: _____
Facility: _____
Address: 1125 Miles Ave Oakland
Weather: _____

Project Number: CWG-01
Date: 12-9-11
Time Arrived: _____
Time Departed: _____

Time	Notes and Description of Activities
2:42	set up - leak checked SS-1 in dark room with TO17 sorbent tube & removed 200mL in syringe over 3 min
2:58	set up and leak check SS-6 from -18.82"Hg held tight & increased vac after 10 minutes to -18.86"Hg
3:10	Begin purge from -22.03"Hg ended @ 6.7"Hg after 4 min for ml purge.
3:16	Begin sampling from ~29.07"Hg w 4 drops IPA Log# 1369

Time	3:17	3:18	3:19	3:20	3:21	3:22
"Hg	24.0	21.2	18.9	16.3	14.0	12.5	10.7	9.1	7.9	6.6	5.30
ppmV	4.0	3.6	7.9	13.0	11.8	11.0	12.8	13.4	11.4	12.3	14.3

end

Ave = 8.9ppm Peak = 15.7ppm Run time = 5min

3:28	set up & leak TO17 sorbent tube & withdrew 200mL of vapor over 3 minutes.
3:45	set up & leak checked SS-7 from -17.12"Hg. in living space; held tight to -17.10"Hg after 10 min.
3:55	Begin purge from -21.85"Hg. completed to -6.85"Hg for 500mL purge after 4 minutes.
4:01	Begin sampling from 29.35 w 5 drops IPA Log# 1370

Time	4:02	4:03	4:04	4:05	4:06	4:07
"Hg	25.1	19.6	17.2	15.6	13.6	11.5	10.0	8.4	7.2	6.0
ppmV	1.0	1.0	1.1	1.4	1.8	3.0	3.3	3.6	3.9	4.5	4.80	5.1	5.3	5.7	6.5

End

Ave = 2.4ppm
Peak = 6.5ppm
Run time = 5min

4:13