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TRANSMITTAL

DATE: December 7, 2009

REFERENCE NO.: 540188

PROJECT NAME: 1432 Harrison Street, Oakland

TO: Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

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QUANTITY	DESCRIPTION
1	Additional Site Characterization Report

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COMMENTS:
Should you have any questions regarding the content of this document, please contact Robert Foss at (510) 420-3348.

Copy to: Est. of A. Bacharach/Barbara Jean Borsuk c/o Mr. Mark Borsuk

Completed by: Robert Foss [Please Print]

Signed: Robert Foss

Filing: **Correspondence File**

ADDITIONAL SITE CHARACTERIZATION REPORT

ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

AGENCY CASE NO. **RO0000266**

Prepared by:
Conestoga-Rovers & Associates

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DECEMBER 4, 2009
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1.0 INTRODUCTION

On behalf of the Estate of A. Bacharach/Barbara Jean Borsuk, Conestoga-Rovers & Associates (CRA) is submitting this *Additional Site Characterization Report* for the subject site. Work was performed under the July 1, 2008 *Additional Characterization Work Plan, Allright Parking, 1432 Harrison St., Oakland, California*, conditionally approved by Alameda County Environmental Health Services (ACEH) in their August 1, 2008 letter (Appendix A). The project site manager for ACEH is Mr. Jerry Wickham.

The following tasks were performed:

- ***Soil Boring Investigation:*** A boring was drilled in the area of the former gasoline USTs, adjacent to Harrison St. The boring was drilled to a depth of 50 feet below ground surface (ft bgs). Soil samples were collected and analyzed. Due to limited height access and ventilation control, the proposed Alice Street boring location, adjacent to the former waste oil tanks, was removed from the scope of work as approved by Mr. Jerry Wickham (ACEH) in an e-mail dated August 27, 2009 (Appendix A).
- ***Soil Vapor Characterization:*** Soil vapor probes SV-3 through SV-8 were installed on the Site, adjacent to the Site on Harrison St, and within the multi-story, covered parking lot located at 1439 Alice St. Soil vapor probes SV-1 and SV-2 were not installed due to subsurface utility conflicts. All six (6) newly installed soil vapor probes were sampled and soil vapor analyzed.
- ***Groundwater Monitoring Well:*** An access agreement was requested with Mr. Brian Booth of the Marian E. Booth Trust to install a groundwater monitoring well on the Douglas Parking lot at 1515 Harrison St. Following a May 6, 2009 letter from Mr. Jerry Wickham of ACEH, requesting access to the 1515 Harrison Street property for well installation, Mr. Brian Booth notified CRA of denied access to the Douglas Parking lot. Considering this information, Mr. Wickham (ACEH) approved CRA to proceed with the field work without installing the down gradient monitoring well in an e-mail dated June 10, 2009 (Appendix A).

Procedures and results are provided in the text of this report, supported with attached figures, tables and appendices. Figures 1 and 2 are a vicinity map and site plan, respectively. Figure 3 presents Third Quarter 2009 groundwater elevations and hydrocarbon concentrations. Figure 4 presents all historical grab groundwater analytical results, along with the most recent, September 2009, monitoring well sample results. Figures 5 and 6 illustrate pre-remediation soil concentrations and soil sample

analytical data from post-remediation soil boring SB-24. Figures 7 and 8 represent geologic cross sections A-A' and B-B', respectively, and include both historical and recent soil and groundwater hydrocarbon concentrations. Figure 9 presents the recent soil gas sampling results. Figure 10 is a site plan of the Alice Street property. Figure 11 shows the July 1994 Alice Street property investigation grab groundwater sample locations and analytical results, as well as the September 2009 groundwater elevation in well MW-3 (not sampled). Soil sample analytical results from the Alice Street property investigations of September 1990 (B-6) and January 1992 (B-1 through B-10), and the August 1994 MW-3 well installation are presented on Figure 12. Photographs showing the location of the former waste oil USTs, and their relationship to the building and sidewalk above, are presented as Figure 13. Table 1 documents monitoring well construction details. Table 2 provides recent and historical depth to water measurements and elevations, chemical, and separate phase hydrocarbon (SPH) data. Table 3 is a compilation of petroleum hydrocarbon soil analytical results. Table 4 presents additional soil analytical data. Table 5 presents recent soil vapor analytical data. Appendix A provides recent regulatory correspondence. Appendix B contains monitoring well benzene concentration time-series trend analyses. Appendix C contains the standard operating procedure for vapor probe installation and sampling. Appendix D provides the log for boring B-24 and newly installed soil vapor probe SV-3 through SV-8. Appendix E includes a copy of the drilling permit. The September 2009 soil vapor sampling analytical reports are included as Appendix F

1.1 SITE INFORMATION

Site Address	1432 Harrison St and 1439 Alice St., Oakland, CA
Site Use	Commercial Parking Business
Client and Contact	Estate of A. Bacharach /Barbara Jean Borsuk, c/o Mr. Mark Bosuk
Consultant and Contact Person	CRA, Robert Foss, P.G.
Lead Agency and Contact Person	ACEH, Mr. Jerry Wickham, P.G.
Agency Case No.	RO0000266

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

Harrison Street Property - The site is located at 1432 Harrison Street, in Oakland, California, as identified on Figures 1 and 2. The property is currently used as an open air ground-level commercial parking facility in downtown Oakland. The general area is mixed commercial and high-density, multi-story residential (apartment buildings).

Alice Street Property – This property, associated with 1432 Harrison Street, is located at 1439 Alice Street, one block east of Harrison Street, as identified on Figure 2. These two properties are contiguous, with a common property line across the back of each. These two properties are operated jointly, inferred from the open roll-up door between the sites from surface parking (Harrison St.) to the multi-level commercial parking facility on Alice Street. Part of the ground floor along Alice Street is occupied by Chung's TV Video Sales & Service. This site is bordered by Alice Street to east, a residential apartment building to the north, and commercial parking, including 1432 Harrison, to the west and south.

2.2 HISTORICAL SITE USES

Harrison Street Property – This site was identified as residential from as early as 1889 through at least 1911. Sometime after 1911, the residence was removed and the site was used for commercial purposes, including automotive servicing and repair, as well as car rental and leasing, through at least 1986. From some time preceding 1998 through the present, the site has been used for commercial parking.

Alice Street Property – As with the 1432 Harrison Street property, the site was occupied by a residential structure from as early as 1889 through at least 1911. From at least 1928, the site was occupied by multiple commercial enterprises, including a beauty shop, a photo studio, automotive servicing and painting, as well as other unspecified commercial uses. It currently operates as commercial parking facility along with Chung's TV Video Sales and Service.

2.3 GEOLOGY AND HYDROGEOLOGY

Geology: The site resides along the eastern shore of San Francisco Bay, a broad depression between the San Andreas and Hayward fault systems. Regionally, this area is located in California's Coast Range Physiographic Province, characterized by northwest-southeast trending valleys and ridges, and lying between the Pacific Ocean to the west and the Great Valley to the east. The oldest known bedrock in the Coast Range Province is marine sedimentary and volcanic rocks that form the Franciscan Assemblage. Geologic formations in the San Francisco Bay Region range in age from Jurassic to recent Holocene. Specifically, the site is located to the west of the Oakland-Berkeley Hills on the East Bay Plain, sloping gently to the west towards San Francisco Bay. Unconsolidated sediments in the East Bay Plain vary in thickness, with some areas up to 1,000 feet thick. From oldest to youngest, the unconsolidated sediments are 1/ Santa Clara Formation, 2/ Alameda Formation, 3/ Temescal Formation, and 4/ artificial fill. The Early Pleistocene Santa Clara Formation consists of alluvial fan deposits inter-fingered with lake, swamp, river channel, and flood plain deposits, ranging from 300 to 600 feet thick. The Late Pleistocene Alameda Formation was deposited primarily in an estuarine environment and consists of alluvial fan deposits bound by mud deposits on the top and bottom of the formation. The Alameda Formation ranges from 26 to 245 feet thick and is subdivided into the Yerba Buena Mud, San Antonio, Merritt, and Young Bay Mud Members. The Early Holocene Temescal Formation is an alluvial fan deposit consisting primarily of silts and clays with some gravel layers. The Temescal Formation ranges from 1 to 50 feet thick, thinning toward the bay. Below any sub-base and fill, shallow sand, silt, and clay at the site most likely are Temescal Formation. The site lithology is heterogeneous consisting of interbedded lenses of silty sand, sand, and sandy silt to the maximum explored depth of 50 feet. Near the surface, fill includes gravel and concrete road base.

Hydrogeology: The site is located in the East Bay Plain Sub-Basin, Groundwater Basin No. 2-9.04 (DWR 2003). The East Bay Plain Sub-Basin is a northwest trending alluvial basin, bounded on the north by San Pablo Bay, on the east by the contact with Franciscan basement rock, and on the south by the Niles Cone Groundwater Basin. The East Bay Plain Sub-Basin extends beneath San Francisco Bay to the west. The East Bay Plain Sub-Basin aquifer system consists of unconsolidated sediments of Quaternary age. These include the Santa Clara Formation, Alameda Formation, Temescal Formation, and artificial fill. In the project area most rainfall occurs between November and March. The average annual rainfall is approximately 23 inches. Throughout most of the East Bay Plain regional water level contours show that the direction of groundwater flow is

generally east to west, towards San Francisco Bay, with some localized variations. Groundwater flow direction typically correlates with topography.

From 1860 to 1930 groundwater from the East Bay Plain was the major water supply of the East Bay, before Sierra water was imported into the area. By the late 1920's the groundwater supply was too small to meet the growing population and the wells often became contaminated by seepage or saltwater intrusion. By 1929, East Bay Municipal Utility District (EBMUD) provided imported water to East Bay communities via the Mokelumne Aqueduct. This high-quality, reliable supply soon eliminated the need for local groundwater wells. In 1996, the Regional Board reviewed General Plans for Oakland and other communities. They found that Oakland and most other cities did not have any plans to develop local groundwater resources for drinking water, due to existing or potential saltwater intrusion, contamination, or poor or limited quality (Regional Board 1999).

The first encountered water has typically been observed at approximately 20 ft bgs. Depths to groundwater in monitoring wells associated with the site have historically ranged from 18 to 21 ft bgs, as presented in Table 2. Groundwater beneath the site flows primarily towards the north, with some localized flow to the south. Any vertical hydraulic gradient is currently undefined.

3.0 PREVIOUS ACTIVITIES AND INVESTIGATIONS

3.1 1432 HARRISON STREET INVESTIGATIONS AND ACTIVITIES

July 1990 through May 1993 - Soil Boring Investigations: In July and September 1990, Subsurface Consultants (SCI) of Oakland, California drilled seven soil borings near the gasoline USTs and between the hydraulic lift area, the wash rack, and the sump. Soil samples were analyzed and petroleum hydrocarbons were detected. Geophysical investigation performed by JR Associates (JRA) was preformed in August of 1990. JRA detected anomalies in the subsurface near the hydraulic lift area.

In January and February 1992, RGA Environmental Consulting of Emeryville, California drilled 11 soil borings and analyzed soil samples from various depths near the gasoline USTs, the pump island, and between the hydraulic lift area, the wash rack, and the Sump.

In the RGA Preliminary Site Assessment Report dated April 2, 1992, RGA states the site once was a "Chevron Service Station". During the review of the September 2007 EDR and prior investigation documentation, CRA was unable to verify this statement.

In May 1993, Levine-Fricke, Inc. (Levine-Fricke) of Emeryville, California drilled two soil borings near the gasoline UST area and analyzed soil samples down to a depth of 24.5 ft bgs.

December 1993 - Removal of USTs: In December 1993, Levine-Fricke removed two underground storage tanks (USTs) from the site. The two 1,000-gallon, single-walled, steel, gasoline USTs were located under the sidewalk on Harrison Street, with gasoline dispensers located about 20 ft east of the USTs. In addition, three hydraulic lifts, one vault, one wash rack sump, and associated piping were reportedly excavated and removed from the site. A total of approximately 240 cubic yards of hydrocarbon-impacted soil was reportedly removed from these areas.

January 1994 – Installation of Monitoring Well: Monitoring well MW-1 was installed by Levine-Fricke at the former gasoline tank area. No information regarding the installation of this well has been located at this time. However, the Levine-Fricke report, titled *Tank Closure Report on Removal of Underground Fuel Storage Tanks and Related Structures, Harrison Street Garage, 1432-1434 Harrison Street, Oakland, California*, dated February 22, 1994, states, "After removing water that infiltrated into the excavation from the gutter area, a 4-inch diameter well was installed by Levine-Fricke and a licensed drilling subcontractor in the utility box…" Apparently, no soil samples were collected or analyzed during this well installation.

July 1994 - Subsurface Investigation: In July 1994, Levine-Fricke conducted a subsurface investigation to assess the extent of hydrocarbons in soil and groundwater. One soil boring in Harrison Street was drilled and sampled and one additional well was installed onsite: MW-2.

July 1995 - Subsurface Investigation: In July 1995, Cambria Environmental Inc. (Cambria) conducted a subsurface investigation to further define the extent of hydrocarbons in soil and groundwater. Cambria drilled nine soil borings to collect soil samples and three boring to collect grab groundwater samples. Petroleum hydrocarbons were detected in both soil and groundwater.

August 1996 - Soil Vapor Extraction Test: In August 1996, Cambria conducted a soil vapor extraction test on existing groundwater monitoring wells MW-1 and MW-2.

Results of the test suggested that the subsurface consists of moderate permeability materials such as sands and silty sands, and that soil vapor extraction could effectively remove hydrocarbons from the subsurface soils.

October 1996 Subsurface Investigation: In October 1996, Cambria conducted an additional subsurface investigation to further define the extent of hydrocarbons in soil and groundwater. Five soil borings were drilled and three of the borings were converted to monitoring wells MW-4, MW-5, and MW-6. Two additional angled borings were drilled to assess the impact of hydrocarbons from two closed-in-place tanks located directly up-gradient of the site.

July 1999 – Coaxial Remediation Wells: In July 1999, Cambria installed four coaxial remediation wells near the former gasoline USTs for vapor extraction and air sparging.

December 2001 – April 2005 Soil Vapor Extraction/Air Sparge Remediation: In December 2001, Cambria supervised the installation and initiated active remediation with a site-specific soil vapor extraction (VES) and air sparging (AS) system. The system ran under a Bay Area Air Quality Management District (BAAQMD) permit. System influent, mid-influent, and effluent vapor samples were collected and analyzed. On April 30, 2005 remediation using the VES/AS system ceased due to low influent vapor concentrations and hydrocarbon mass removal rates. During operation of the SVE/AS system, approximately 9,939 pounds of hydrocarbons were extracted from the site. On June 2, 2005, the SVE/AS system was removed from the property.

August 2006 – Risk Assessment: A Tier 1 and 2 risk assessment was performed using existing data. Based on this analysis, it was determined that there is no significant commercial risk for indoor and outdoor vapor inhalation from benzene in soil and/or groundwater. Also, there is no significant residential risk from outdoor vapor inhalation from benzene. Some elevated concentrations of benzene in soil indicated that a potential may exist from indoor residential vapor inhalation. Currently no indoor residential receptors apparently exist in areas with elevated concentrations of benzene associated with the site. Because of this preliminary finding, Cambria presented a March 9, 2007 *Soil Gas Characterization Work Plan*.

March 2007 - Soil Gas Characterization Work Plan: In March 9, 2007, Cambria submitted a *Soil Gas Characterization Work Plan* to ACEH, as recommended in the August 2006 *Risk Assessment*. Cambria proposed six onsite soil gas sampling locations. ACEH did not allow implementation of *Soil Gas Characterization Work Plan*, apparently due to lack of an assigned ACEH project manager. The June 2008 *Additional*

Characterization Work Plan, submitted by CRA, supersedes the previous March 9, 2007 *Soil Gas Characterization Work Plan*.

Groundwater Monitoring: Periodic groundwater monitoring and sampling has been performed since May 1994. Monitoring well construction details are presented in Table 1. Historical and recent groundwater analytical data are presented in Table 2.

3.2 1439 ALICE STREET INVESTIGATIONS AND ACTIVITIES

July 1990 through May 1993 - Soil Boring Investigations: In July and September 1990, Subsurface Consultants (SCI) of Oakland, California drilled one soil borings near the waste oil tanks. Soil samples were analyzed and petroleum hydrocarbons were detected. Geophysical investigation performed by JR Associates (JRA) was preformed in August 1990. JRA found the waste oil tanks full of unknown liquid. In August 1991, SCS Engineers of Dublin, California sampled the contents of the waist oil tanks. SCS reported the presents of oil and grease, diesel, and volatile hydrocarbons with in the waste oil tank samples. SCS noted the quantities of contaminants to be low.

In January and February 1992, RGA Environmental Consulting of Emeryville, California drilled 12 soil borings and analyzed soil samples from various depths near the waste oil tanks.

December 1993 - Removal of USTs: In December 1993, Levine-Fricke removed and excavated two waste-oil tanks and related piping, located under the sidewalk on Alice Street. It was observed, both waste oil UST's exhibited cracking along the seams. A total of approximately 60 cubic yards of hydrocarbon-impacted soils were reportedly removed from around the waste oil UST's and related piping. The concrete spacer, between the two waste oil tanks, was reportedly closed in place.

July 1994 - Subsurface Investigation: In July 1994, Levine-Fricke conducted a subsurface investigation to assess the extent of hydrocarbons in soil and groundwater. Three soil borings in Alice Street were drilled. Sampling points GW-2, GW-3, and MW-3 were sampled for soil and groundwater. MW-3 was converted into a monitoring well, located to the east, in Alice Street.

Groundwater Monitoring: Quarterly groundwater monitoring and sampling from MW-3 had been performed from May 2004 through March 2005 and December 2000 through June 2002 by Cambria. Annual ground water monitoring and sampling from

MW-3 has been performed from December 2000 to present by Cambria and now CRA. Monitoring well construction detail for MW-3 is presented in Table 1. Historical and recent groundwater analytical data are presented in Table 2.

4.0 HYDROCARBON DISTRIBUTION

4.1 HYDROCARBON DISTRIBUTION IN SOIL - HARRISON ST PROPERTY

Soil vapor extraction/air sparge (SVE/AS) remediation was conducted at the site from December 2001 through April 2005. Pre-remediation hydrocarbon concentrations in soil are presented on Figure 5 and Tables 3 and 4. Elevated soil hydrocarbon concentrations existed in the upper 30 feet in the vicinity of the former USTs and gasoline dispensers. These elevated concentrations were observed in both the vadose and saturated zones. With few exceptions, the occurrences of "pre-remediation" elevated hydrocarbons were observed between 18 and 27 ft bgs. The exceptions were observed in soil samples collected between 9 and 13 ft bgs from soil borings located around the USTs, reportedly closed in place, beneath the sidewalk at 1424 Harrison Street. The maximum TPHg concentration observed in these samples was 1,900 mg/kg in boring SB-Q at 9.6 ft bgs. One other shallow soil sample, collected at 10 ft bgs in boring B-22 near the former dispenser island, contained TPHg at 1,540 mg/kg. This was likely the result of a release associated with either the product piping or the dispenser itself. One additional soil sample from boring B-4, located adjacent to the former hydraulic lifts, near the eastern corner of the 1432 Harrison St property, collected at 10 ft bgs contained 1,700 mg/kg TPH as diesel (TPHd).

Elevated TPHg concentrations were reported down to 26.5 ft bgs in borings adjacent to the former USTs beneath the sidewalk in front of 1432 Harrison. No soil analytical data are available between 26.5 and 30 ft bgs, but reported concentrations of hydrocarbons decreased to below detection limits in the 30 ft samples from VES-2 and VES-4. Soil boring B-24, drilled during this investigation, reported TPHg concentrations of 1.5, 4,300 and 22 mg/kg in samples collected at 20, 25 and 29.5 ft bgs, respectively. This illustrates the normal decreasing concentrations with depth to 30 ft bgs. However, the two samples below 30 ft, at 35 and 49.5 ft bgs, reported concentrations of 1,400 and 890 mg/kg, respectively. This increase in reported concentrations with greater depth appears anomalous and contrary to the expected, based on historical depth to water across the site. One possible explanation may be the caving of sidewall material from

the impacted zone above, at or just below the water table, as the direct push drilling tool was extracted and replaced into the borehole.

Improvements to the site, including the USTs, fuel dispensers, three hydraulic lifts, a subsurface vault, a wash rack sump and associated piping were removed from the site in December 1993. Approximately 240 cubic yards of backfill and over-excavated hydrocarbon-impacted soil were removed along with the improvements. The SVE/AS system was designed to primarily remediate the area of the former USTs and gasoline dispensers. The removal of the USTs, piping, dispensers and associated impacted soil, along with the removal of a calculated 9,939 pounds of hydrocarbons by SVE/AS, should have significantly decreased residual hydrocarbon concentrations in soil. Current residual hydrocarbon concentrations in soil are unknown in these areas, but as described above, are likely to be greatly reduced.

4.2 HYDROCARBON DISTRIBUTION IN SOIL - ALICE ST. PROPERTY

Non-detected to very low concentrations of petroleum hydrocarbons were reported in soil samples collected from the 11 borings advanced across the site. These data are presented on Figure 12 and in Tables 3 and 4. The highest reported concentrations were 221 mg/kg oil and grease in boring B-7, 109 mg/kg TPHd in boring B-9 and 27.3 mg/kg TPHg in boring B-1. Borings B-1 and B-9 were drilled adjacent to the waste oil USTs removed from this site in December 1993. No benzene was detected in any soil samples collected during investigation of 1439 Alice Street. It is reported that approximately 60 cubic yards of soil were removed along with the USTs in December 1993.

4.3 METALS DISTRIBUTION IN SOIL - HARRISON ST PROPERTY

Shallow soil samples collected near the former hydraulic lifts and wash rack sump area were analyzed for mercury (Hg) and arsenic (As). Samples were collected at 5 and 15 ft bgs from borings B-13, B-14 and B-15 near the former hydraulic lifts and at the same depths from boring B-16, at the wash rack sump. The highest concentrations of Hg were reported in the 5 fbg samples at both locations at 45.4 mg/kg (B-13, hydraulic lifts) and 44.9 mg/kg (B-16, wash rack sump). The highest concentrations of arsenic reported in the 5 fbg samples were 47.3 and 41.8 mg/kg, again, in B-13 and B-16, respectively. Both Hg and As decreased in the deeper samples collected and analyzed from 15 fbg. Due to

the limited number of sample data points, the analytical results did not indicate a discernable trend with respect to areal distribution. The origin of these apparently elevated concentrations is not specifically known.

4.4 METALS DISTRIBUTION IN SOIL - ALICE ST PROPERTY

Shallow soil samples were collected from soil borings B-1 through B-10 in January 1992. As with samples from the adjacent property, these samples were analyzed for Hg and As. Samples were collected at 2 ft bgs in borings B-1 and B-2, at 5 ft bgs in B-9 and at 8 ft bgs in B-10. These borings appear to have been advanced through the Alice Street sidewalk. Samples from borings B-3 through B-8 were collected at 2 ft bgs. However, these six borings were advanced through the basement floor of 1439 Alice Street, and are therefore estimated to be from approximately 14 ft bgs, relative to the previous reference point, that being the Alice Street sidewalk. The highest Hg concentration reported was in boring B-7, along the southern wall at 74.3 mg/kg. The highest As concentration reported was in boring B-5, also along the southern wall, at 47.3 mg/kg. These reported concentrations were fairly consistent in all samples and may represent naturally occurring concentrations of these metals in the subsurface. Analytical results are presented on Figure 12 and Table 4.

4.5 HYDROCARBON DISTRIBUTION IN GROUNDWATER - HARRISON STREET

Elevated concentrations of gasoline-range hydrocarbons have historically been detected in groundwater sampled from monitoring well MW-1, located at the southern of the two former gasoline USTs, and monitoring wells MW-2, MW-4, and MW-5, located to the north and downgradient of the former USTs. Reported hydrocarbon concentrations in MW-1 had exhibited a significant overall decreasing trend since sampling began in August 1994. This trend appears to correlate with the implementation of active SVE/AS remediation between December 2001 and April 2005 at the location of the former USTs, despite showing a rebound after the system was turned off in April 2005. However, the overall decreasing trend is still present, and the most recent reported samples from March 2008 show a reduction from rebounded post-remediation levels. Concentrations in MW-2, located approximately 25 feet downgradient of the former USTs, decreased significantly from 2002 to 2005, but exhibited a rebound in dissolved hydrocarbon concentrations, similar to MW-1 but slightly delayed. The delayed rebound is likely due

to the slow migration of (re)impacted groundwater northward from the source area (well MW-1) to MW-2. Both of these wells are downgradient of the USTs associated with the adjacent property at 1424 Harrison Street, and the observed dissolved hydrocarbon rebound may be more closely associated with residual hydrocarbon impacts from those USTs abandoned in place. Groundwater concentrations associated with well MW-4, further downgradient, have significantly decreased, becoming apparent during the first quarter of 2006. Again, this may be the effect of delayed arrival of remediated groundwater at this well "post-remediation". Since its construction and first sampling in October 1996 through December 2003, well MW-5 exhibited very low to non-detected concentrations of dissolved hydrocarbons. Since March 2004, reported groundwater concentrations have exhibited a gradual increase to the current 40,000 micrograms per liter (µg/l) TPHg and 10,000 µg/l benzene. Currently, the extent of groundwater impacted by petroleum hydrocarbons downgradient of wells MW-4 and MW-5 is undefined.

As mentioned above, local groundwater conditions may be influenced by other sources, specifically hydrocarbons associated with the USTs closed in-place beneath the sidewalk at 1424 Harrison Street. It is also possible that historical commercial operations on nearby sites may also be impacting groundwater. On April 22, 2008, a letter report titled *Neighboring Sites* was submitted to ACEH documenting the historical presence of other commercial operations which could impact groundwater in the immediate and local vicinity of the site.

4.6 HYDROCARBON DISTRIBUTION IN GROUNDWATER - ALICE STREET

Monitoring well is MW-3, located down- and somewhat crossgradient of the former waste oil USTs at the Alice Street property. Well MW-3 was installed and first sampled in August 1994. No detected concentrations of gasoline-range hydrocarbons, including TPHg, BTEX or MTBE have ever been reported in samples collected from this well. Grab groundwater samples were also collected from GW-2 and GW-3, located along the western side of Alice Street, downgradient and upgradient of MW-3, respectively. No gasoline-range hydrocarbons were detected. Table 2 presents analytical results for petroleum hydrocarbons in groundwater. Figure 11 illustrates reported analytical results groundwater samples collected adjacent to the Alice Street property.

5.0 SENESITIVE RECEPTOR SURVEY

A sensitive receptor survey was completed during this investigation. The State's Geotracker website was consulted to investigate the locations of any supply wells within ½ mile of the subject site. The website shows that no wells are located within a ½ mile radius. The website also indicated that the nearest groundwater monitoring wells are located at two downgradient sites. One is a former Chevron site, located at 1633 Harrison St. and the other is Douglas Parking at 1721 Webster St. The nearest well, MW-9 on the Chevron site, is located approximately 500 feet downgradient of the site. Chevron's well MW-9 most recently contained 580 µg/l TPHg and no benzene. There is currently no way to confirm that this reported concentration results from the Chevron operation or from the subject site or any other potential site in the vicinity. The nearest surface water body is Lake Merritt, located approximately 1,500 ft northeast of the site. With Groundwater occurring at an average depth of 20 ft bgs, no utilities are seen as being potentially impacted or providing a conduit for preferential migration.

6.0 SOIL BORING AND VAPOR PROBE INSTALLATION ACTIVITIES

Personnel Present: The additional site characterization field work was performed by CRA Staff Geologist Bryan Fong and Staff Scientist Calvin Hee. Their work was overseen by CRA Senior Project Geologist Mark Jonas, a California Professional Geologist.

Permits: The Alameda County Public Works Agency issued subsurface drilling permits for soil borings and vapor probe installation activities. The City of Oakland issued excavation, obstruction, and encroachment permits for soil borings and vapor probe installation activities within the public right of way. Copies of the permits are provided in Appendix E.

Drilling Company: Gregg Drilling (C57 License #485165) of Martinez, California performed direct push boring and soil gas probe installation activities.

Drilling Dates: Gregg Drilling advanced direct push soil boring B-24 and installed soil gas wells SV-3 through SV-8 on August 31, 2009.

Subsurface Utility Survey Method: CRA marked the boring and vapor probe locations with white paint and notified underground service alert (USA) to have subsurface utilities marked. CRA retained California Utility Surveys of San Ramon to locate

utilities that may not have been identified by USA, and to verify proposed boring and vapor probe locations. Prior to advancing borings with a drill rig, Gregg Drilling cleared each boring location to a minimum of 5 ft bgs using a hand auger.

Soil Boring Drilling Methods: Gregg Drilling advanced soil boring B-24 by direct push technology using a track mounted limited access drilling rig. This drilling method produces a continuous core of subsurface sediments. The standard field procedures for Geoprobe boring and sampling is included in Appendix C. The sediments were observed and logged, and the completed boring log for B-24 is included in Appendix D.

Vapor Probe Installation Methods: As referenced in *Section 1.0 Introduction*, vapor probes SV-1 and SV-2 were not installed due to utility conflicts along Harrison and 15th Streets. Vapor probe borings SV-3 through SV-8 were advanced entirely by hand auger. Standard field procedures are provided in Appendix C. Sediment cuttings from the hand auger were observed and logged, and the completed boring logs for SV-3 through SV-8 are included in Appendix D.

Boring Depths: Soil boring B-24 was advanced to a depth of 50 ft bgs. Borings SV-3 through SV-8 were advanced to an approximate depth of 5½ ft bgs.

Vapor Probe Construction: Gregg Drilling cleared six 3½ inch diameter boreholes using a hand auger to approximate depths of 5½ ft bgs. In each borehole a stainless steel vapor probe, attached with ¼ inch Teflon tubing, was set at a depth of 5 ft bgs with 1 foot of No. 2/12 Monterey sand. Dry granular bentonite was placed above the sand from 4½ to 3½ ft bgs. Hydrated bentonite was placed from a depth of 3½ ft to the surface. A flush well box was installed to complete each probe. Copies of boring logs and soil vapor probe completion details are provided in Appendix D, and DWR completion reports are provided in Appendix E.

Soil Sampling Method: Soil samples were collected from boring B-24. The soil core was visually examined for staining and screened with a photoionization detector (PID). PID readings from this screening are noted on the boring logs. Soil samples were collected from intervals where staining or elevated PID readings were observed, or at a minimum interval of 5 ft. Soil samples were labeled, stored in an ice cooler at or below 4 degrees Celsius, and transported under a chain-of-custody to McCampbell Analytical Inc. (McCampbell) in Pittsburg, California for analysis. McCampbell is a California certified laboratory.

Soil Gas Sampling Method: On September 8, 2009, Staff Geologist Bryan Fong collected soil vapor samples from SV-3 through SV-8. Before purging and sampling, each sample canister was monitored for pressure changes for approximately 10 minutes. At an approximate vacuum of 3 inches mercury (in Hg), each well was purged prior to sampling. After purging an appropriate volume, soil vapors were sampled using a 1-liter negative pressurize summa canister. Leak testing of the equipment was conducted using shaving cream, as described in CRA's *Standard Field Procedures for Soil Vapor Sampling*. Samples were labeled and transported under a chain-of-custody to Air Toxics, a California certified laboratory. Additional samples were collected from SV-6, SV-7 and SV-8 to be analyzed for mercury vapors. Before collecting these additional samples, an air sampling pump was calibrated to a flow rate of 200 milliliters per minute (ml/min). A hopcalite sorbent tube was connected from the sampling pump to the vapor probe using ¼ inch Teflon tubing. Soil vapors were pulled through the hopcalite sorbent tube at a flow rate of 200 ml/min for approximately 30 minutes. Samples were labeled and transported under a chain-of-custody to ALS Laboratories of Salt Lake City, Utah. Vapor sampling media were provided by McCampbell and ALS Laboratories.

Sample Analysis: Soil samples were analyzed for TPHg, BTEX, and MTBE compounds by modified EPA Method SW8015C and SW8021B. Samples were labeled, stored in an iced cooler and transported under a chain-of-custody to a California certified laboratory. Vapor samples were analyzed for TPHg and BTEX by Method TO-3 and TO-15, respectively. Oxygen, carbon dioxide and methane were analyzed by ASTM Method D-1946. Leak detection compounds isobutane, propane and butane (shaving cream) were analyzed by EPA Method TO-15 TIC. Additionally, the "full scan" analysis by TO-15 GC/MS was run on sample SV-8. The additional vapor samples from SV-6 through SV-8 were analyzed for mercury by Method NIOSH 6009. The analytical results for soil are presented on Tables 3 and 4, and are summarized on Figure 6. Vapor sample analytical results are presented on Table 5 and are summarized on Figure 9. Analytical reports are provided in Appendix F.

Geotracker: Simultaneous with submittal of this report, all pertinent data will be uploaded to both the Alameda County FTP website and to the California State Water Resources Control Board's Geotracker Database, as required by Title 23, Division 3, Chapter 30, Articles 1 and 2, Sections 3890-3895 of the California Code of Regulations.

7.0 RESULTS OF 2009 ADDITIONAL SITE CHARACTERIZATION

This section presents the findings of the 2009 additional site investigation activities. Following is a discussion of soil and soil vapor analytical results.

7.1 LITHOLOGY

Soil boring B-24 was logged to its total depth of 50 ft bgs. Sediments consisted of yellowish brown to dark yellowish orange, high permeability sands with three identified zones of silty sands or sandy silt. These ranged in thickness from 1 to 3 feet. No recovery of the sediment core occurred from 40 to 48 ft bgs. Sediment recovery from 48 to 50 ft bgs showed sandy silt with gravel from 48 to 49 ft bgs and sand with silt from 49 to 50 ft bgs. Water was encountered in B-24 at 25 ft bgs. This was inferred from the observation of wet sediments in the core barrel. At approximately 20 ft bgs, sediment color changed to olive gray and grayish olive green, with some sediments showing yellowish green and yellowish orange at 25 and 49 ft bgs, respectively. Boring logs are included in Appendix D.

7.2 SOIL SAMPLE ANALYTICAL RESULTS

Soil samples were collected from boring B-24 at, essentially, 5 foot intervals starting at 5 ft bgs. A total of eight soil samples were analyzed during the 2009 investigation. Analytical results for soil are presented in Table 3 and are summarized on Figure 6. The soil analytical results are as follows;

- TPHg was detected in soil sample depths between 20 and 49.5 ft bgs, and ranged in concentrations from 1.5 to 4,300 mg/kg. The highest concentration was detected in the sample collected at 25 ft bgs.
- BTEX concentrations were detected in soil samples collected between 25 and 49.5 ft bgs. Benzene ranged from 0.15 to 1.6 mg/kg, toluene ranged from 0.074 to 4.2 mg/kg, ethylbenzene ranged from 0.028 to 9.5 mg/kg, and xylenes ranged from 0.65 to 190 mg/kg. The highest concentration of benzene was detected at 35 ft bgs. The highest concentrations of toluene, ethylbenzene and xylenes were detected at 25 ft bgs.
- No MTBE was detected in any of the soil samples collected from soil boring B-24.

As hypothesized above in Section 4.1, the decreasing, then again increasing hydrocarbon concentrations appear anomalous and contrary to expected results. Considering that groundwater was encountered in this boring at approximately 25 ft bgs where the sample containing the highest concentrations was collected, and that the method of advancing and sampling this boring required the removal and replacement of drill rods at 5 ft intervals, it is quite possible that the increased concentrations of analyzed constituents in the 35 and 49.5 ft bgs samples are a result of saturated impacted soil caving from the borehole wall below the water table between 25 and 29.5 ft bgs and being collected in the subsequently deeper samples. This would appear to be a more plausible explanation, since there are no apparent differentiated lithologic strata that would lead to hydrocarbon migration resulting in these differing vertical results. Copies of the analytical reports are provided in Appendix F.

7.3 SOIL VAPOR SAMPLING RESULTS

Soil vapor samples were collected from vapor probes SV-3 through SV-8 on September 8, 2009. Soil gas analytical results are summarized below and on Table 5, and are illustrated on Figure 9. The reported soil vapor sample analytical results were compared to Table E. - Environmental Screening Levels (ESLs) Indoor Air and Soil Gas (Vapor Intrusion Concerns) from the RWQCB's May 2008 document titled, *Screening for Environmental Concerns for Sites with Contaminated Soil and Groundwater*. None of the concentrations reported from the vapor sample analyses exceed the Shallow Soil Gas Screening Levels for either Residential or Commercial/Industrial Land Use. Vapor sample results are as follows;

- TPHg was detected in all samples collected from SV-3 through SV-8. TPHg concentrations ranged from 440 micrograms per cubic meter ($\mu g/m^3$) to 1,900 $\mu g/m^3$. The highest concentration was detected in the vicinity of the former hydraulic lifts in SV-6 at 5 ft bgs. The established ESL for TPHg is 10,000 $\mu g/m^3$
- Benzene was detected in samples collected from SV-4, SV-7 and SV-8, ranging from 4.2 to 6.2 $\mu g/m^3$, and with the highest concentration detected in SV-7 at 5 ft bgs. SV-7 is located in the basement of 1439 Alice Street. The established ESL for benzene is 84 $\mu g/m^3$
- Toluene was detected in all samples ranging from 6.0 to 39 $\mu g/m^3$. The established ESL for toluene is 63,000 $\mu g/m^3$
- Total xylenes were also detected in all samples, ranging from 5.8 to 37 $\mu g/m^3$. The established ESL for total xylenes is 21,000 $\mu g/m^3$

- No mercury vapors were detected from the three vapor probes sampled above the detection limit of 0.010 µg/sample.

Other VOCs detected in SV-8 include Acetone, Carbon Disulfide, and Tetrachloroethene at concentrations of 19, 95 and 32 µg/m^3, respectively. No ethylbenzene or mercury was detected in any of the samples collected from SV-7 and SV-8. Copies of the analytical reports are provided in Appendix F.

Table 6-1
2009 Soil Gas Results

Vapor Probe Sample ID	*TPHg (µg/m^3)*	*Benzene (µg/m^3)*	*Toluene (µg/m^3)*	*Ethylbenzene (µg/m^3)*	*m,p-Xylene (µg/m^3)*	*o-Xylene (µg/m^3)*	*Mercury (µg/sample)*
SV-3	440	ND<4.0	6.0	ND<5.5	5.8	ND<5.5	--
SV-4	530	4.2	9.5	ND<5.2	12	ND<5.2	--
SV-5	1,200	ND<4.0	18	ND<5.5	8.7	ND<5.5	--
SV-6	1,900	ND<3.8	8.0	ND<5.2	15	6.6	ND<0.010
SV-7	780	6.2	39	ND<5.0	25	12	ND<0.010
SV-8	460	4.9	20	ND<5.0	7.1	ND<5.0	ND<0.010
SV-5-Dup	990	ND<3.9	16	ND<5.4	6.4	ND<5.4	--
SV-6-Dup	--	--	--	--	--	--	ND<0.010

Notes: µg/m^3 = micrograms per cubic meters; µg/sample = micrograms per sample; ND<n = not detected (ND) above laboratory reporting limit, n

Table 6-2 compares the highest detected concentrations with Regional Water Quality Control Board, San Francisco Bay Region (November 2007, published May 2008) Table E Environmental Screening Levels for vapor intrusion.

Table 6-2
Soil Gas Results and Environmental Screening Levels

Analyte	*Frequency of Detection*	*Highest Conc. (µg/m3)*	*Shallow Soil Gas Screening Levels*	
			Residential Land Use (µg/m^3)	*Commercial/Industrial Land Use (µg/m^3)*
TPHg	7/7 (100%)	1,900	10,000	29,000
Benzene	3/7 (43%)	6.2	84	280
Toluene	7/7 (100%)	39	63,000	180,000
Ethylbenzene	0/7 (0%)	--	980	3,300
Xylenes	7/7 (100%)[1] 2/7 (29%)[2]	37	21,000	58,000
Mercury	0/4 (0%)	--	19	53

Notes: 1= m,p-Xylenes; 2 = o-Xylene; µg/m^3 = micrograms per cubic meters

As identified by these comparisons, none of the soil vapor results exceed the environmental screening levels for potential vapor intrusion.

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 CONCLUSIONS

Following are conclusions from the recent site characterization study and historical site data presented in this report:

- The downgradient extent of the dissolved hydrocarbon plume remains undefined due to the inability to negotiate property access to accomplish this goal.
- Historical dissolved hydrocarbon concentrations in groundwater, reported from sampling of wells associated with this site, show a correlation of decreasing concentrations during the remediation process, with an expected lag time before becoming apparent. Subsequent to the termination of active remediation, a rebound of dissolved hydrocarbon concentrations was observed in wells near the former USTs. This trend is most apparent in wells MW-1 and MW-2. This is hypothesized to be a result of a continuing source of hydrocarbons from the "closed in place" USTs located beneath 1424 Harrison Street. These USTs are located upgradient of the subject site. Downgradient well MW-4 has also exhibited this decrease in dissolved hydrocarbons, starting in approximately December 2004 and continuing through the present. It is suspected that a rebound of dissolved hydrocarbon concentrations will occur in MW-4 also, as impacted groundwater from beneath 1424 Harrison Street continues migrating toward it. Dissolved hydrocarbon concentrations in MW-5, located down- and slightly cross-gradient from 1432 Harrison Street, to the contrary have shown increasing concentrations since March 2004. Due to the crossgradient location of MW-5 relative to the direction of groundwater flow, the lag time of this well exhibiting increased hydrocarbon concentrations may be a result of the slower lateral diffusion of hydrocarbons in groundwater, or these detected concentrations may result from either one of the known or possibly unknown alternate sources in the vicinity. The April 22, 2008 document titled *Neighboring Sites* identifies the upgradient address of 1437 Harrison as having been a "cleaners, dyers and pressers" from at least 1925 through 1933. Other sites in the immediate vicinity include 1500 Harrison, a former auto repair and service station, as well as 1520, 1535 and 1539 Harrison Street as either auto repair, service stations or both. While the reported concentrations in MW-5 could possibly have originated from the former USTs at 1432 Harrison, it could also be from one of the nearby sites listed above, something as exotic as stoddard solvent reported as gasoline-range hydrocarbons migrating from the former dry cleaner site, or even an unknown more recent source.

Additionally, the current ratio of benzene to TPHg is greater in MW-5 than in MW-2, and higher than the ratio of pre-remediation benzene to TPHg in MW-2. MW-2 is much closer to the former UST location of 1432 Harrison than MW-5, and so it would be expected that this ratio would decrease with distance from the source as benzene degrades and adsorbs to soil particles as it migrates, and also decrease with time from pre-remediation December 2001 to the present.

- Based on soil vapor samples collected and analyzed during this investigation, no risk for potential vapor intrusion to indoor air exists. None of the soil vapor results exceeded the residential, nor commercial/industrial environmental screening levels for vapor intrusion.
- The objective of soil boring B-24 was to characterize post-remediation soil concentrations in the vicinity of the former USTs and gasoline fuel pumps. Pre-remediation soil data indicated elevated concentrations of TPHg and benzene primarily in the depth range of 18-21.5 ft bgs. Analytical results of soil samples collected from boring B-24 appear to confirm successful remediation of impacted soils above the water table. Elevated concentrations were observed in the sample collected at 25 ft bgs which was the depth identified as first encountered water when B-24 was advanced on August 31, 2009.
- Extensive utilities exist in the subsurface adjacent to the site, making the installation of soil vapor probes SV-1 and SV-2 impossible. The presence of these utilities may hinder any future work in this area.
- A sensitive receptor survey indicated that no supply wells are located within a ½ mile radius, and that the nearest groundwater monitoring wells are located at two downgradient sites. The nearest site is a former Chevron site, located at 1633 Harrison St., and the closest well to the subject site, Chevron well MW-9, is located approximately 500 feet downgradient of 1432 Harrison Street. The nearest surface water body is Lake Merritt, located approximately 1,500 ft northeast of the site. With Groundwater occurring at an average depth of 20 ft bgs, no utilities are seen as being potentially impacted or providing a conduit for preferential migration.

8.2 RECOMMENDATIONS

- Though dissolved hydrocarbon concentrations remain at reduced yet elevated levels in the vicinity of the former USTs, it is recommended that recently adopted State Water Resources Control Board Resolution 2009-0042, dated May 19, 2009, be used as a basis for pursuing case closure based on the factors and data identified in this report. In general, those factors are:

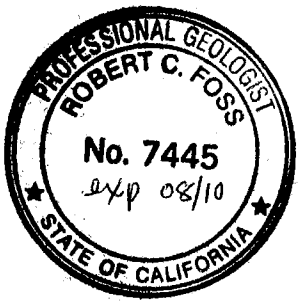
1. Planned future development of 1432 Harrison Street includes two levels of subsurface parking. This, according to the property owner/developer, will require excavation to a depth of 25 ft bgs. This should remove the majority of residual hydrocarbons in soil beneath the property, however, additional "hot spot" excavation has, in theory, been approved by the property owner/developer. During this excavation, potential exposure due to inhalation or dermal contact to construction workers can be mitigated with proper planning,
2. Remediation conducted by SVE/AS removed an estimated 10,000 pounds of hydrocarbons from the soil and groundwater beneath the site between December 2001 and April 2005,
3. Recent site characterization data from boring SB-24, located approximately 10 feet southeast of the former USTs, indicates that, to the degree investigated, residual hydrocarbon impacts to soil were successfully remediated above the water table in the vicinity of the former USTs associated with the site,
4. Vapor sample analytical results indicate that very low vapor concentrations exist in the shallow subsurface. These concentrations were compared to established ESLs presented on Table E of the RWQCB's May 2008 Environmental Screening Level document and that no potential risk of vapor intrusion to indoor air exists beneath the site,
5. Groundwater has historically occurred between 18-23 ft bgs, and residual hydrocarbons in soil appear to be predominantly found at 25 feet and deeper,
6. Due to the depth of groundwater in the vicinity, it is very unlikely that any utilities or other subsurface developments/improvements would come in contact with impacted groundwater,
7. There is no current, nor conceivable future use of groundwater as a drinking water source in the vicinity of the site and no supply wells are located within a ½ mile radius, and
8. Post remediation data suggest that USTs abandoned in place beneath the sidewalk on the adjacent, upgradient property at 1424 Harrison Street may be the cause of the documented rebound in dissolved hydrocarbon concentrations observed in well MW-2. It is understood that the responsible parties for 1424 Harrison Street will soon be conducting an investigation, and possible remediation, of conditions resulting from historical operations and the in-place abandonment of a set of USTs beneath the sidewalk.

- Although SVE/AS remediation has been deemed successful, residual hydrocarbons may still be present at depths less than 25 ft bgs in the area beneath and adjacent to the former USTs. This area appears to be outside the proposed excavation. It is recommended that just prior to the beginning of, or concurrent with site redevelopment, a limited additional investigation be conducted to determine post-remediation hydrocarbon levels in this vicinity. If detected levels of residual contaminants exceed commercial ESLs in this area, it is proposed that limited excavation of impacted soils occur concurrent with the development excavation to insure lateral migration of soil vapors do not enter the subsurface parking area. The proposed comparison to commercial ESLs is made since no residential units will exist below grade in this area, the atmosphere in this area will be subject to vehicle exhaust and a force air ventilation system will be installed during development.

Based on the removal of approximately 10,000 pounds of hydrocarbons from the subsurface during SVE/AS remediation, the documented reduction of dissolved hydrocarbons in groundwater during active remediation and the impending investigation, and probable remediation of hydrocarbons associated with the "closed in place" USTs beneath the adjacent, upgradient property, it is recommended that closure of ACEH Case No. RO0000266 for 1432 Harrison Street be pursued citing the guidance in the SWRCB resolution to consider risk-based closure criteria for UST cleanup cases.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Bryan A. Fong



Robert Foss, P.G.

FIGURES

04/11/07

SOURCE: TOPO! MAPS

H:\SB-2004\OAK188\FIGURES\VICINITY-MAP.AI

FIGURE 1

0 1/8 1/4 1/2 1

SCALE 1:1/4 MILE

Allright Parking
1432 Harrison Street
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

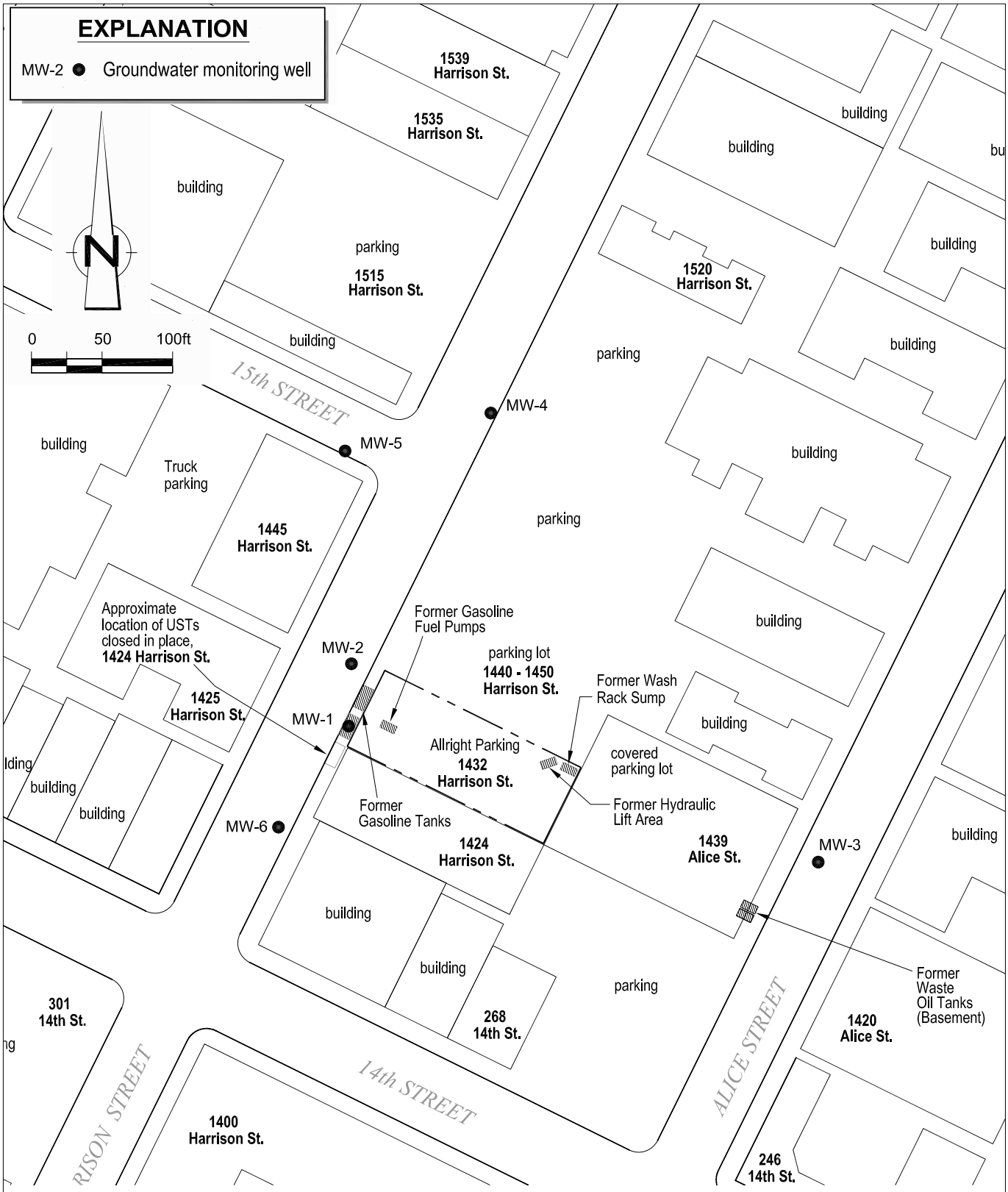


FIGURE 2

SITE MAP
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540118-SITEPLAN.DWG

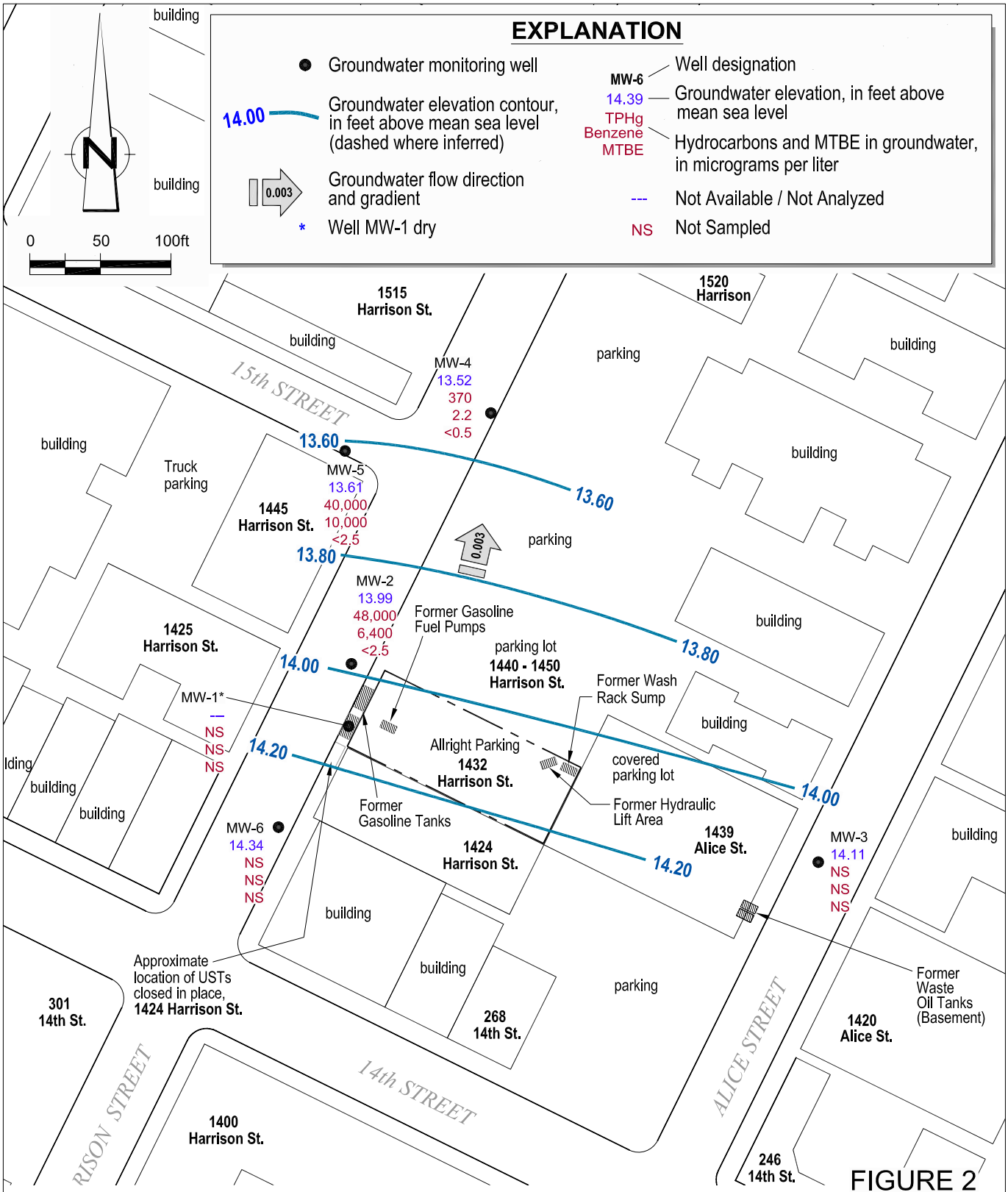


FIGURE 2

GROUNDWATER ELEVATION AND HYDROCARBON CONCENTRATION MAP
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California
September 15, 2009

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540118-3Q09-HCGW.DWG

EXPLANATION

- Monitoring well location
- Vapor extraction / Air sparging coaxial well location
- Groundwater sample location
- Soil sample location
- * MTBE by EPA method 8260
- NS Not Sampled
- NM Not Measured

N

0 20 50ft

15th STREET

14th STREET

HARRISON STREET

ALICE STREET

building

parking

covered

SB-N / MW-5	09/15/09
Elev.	13.61'
TPHg	40,000
Benzene	10,000
MTBE	<2.5*

SB-M / MW-4	09/15/09
Elev.	13.52'
TPHg	370
Benzene	2.2
MTBE	<0.5*

SB-I	07/07/95
TPHg	24,000
Benzene	6,100
MTBE	---

SB-G	07/07/95
TPHg	84,000
Benzene	9,400
MTBE	---

SB-C	07/06/95
TPHg	44,000
Benzene	6,600
MTBE	---

SB-A	07/06/95
TPHg	330
Benzene	16
MTBE	---

SB-K	07/07/95
TPHg	72,000
Benzene	9,600
MTBE	---

SB-J	07/07/95
TPHg	960
Benzene	110
MTBE	---

SB-B	07/07/95
TPHg	450
Benzene	55
MTBE	---

MW-2	09/15/09
Elev.	13.99'
TPHg	48,000
Benzene	6,400
MTBE	<2.5

SB-D	07/06/95
TPHg	70,000
Benzene	7,400
MTBE	---

SB-E	07/06/95
TPHg	25,000
Benzene	1,000
MTBE	---

CB-1-W	07/22/99
TPHg	110,000
Benzene	1,300
MTBE	<3,000

SB-O / MW-6	09/15/09
Elev.	14.34'
TPHg	NS
Benzene	NS
MTBE	NS

GW-1	07/30/94
TPHg	<50
Benzene	<0.5
MTBE	---

CB-2-W	07/22/99
TPHg	4,700
Benzene	21
MTBE	<50

MW-1	09/15/09
Elev.	Dry
TPHg	NS
Benzene	NS
MTBE	NS

MW-3	09/15/09
Elev.	14.11'
TPHg	NS
Benzene	NS
MTBE	NS

VES-4/AS-4
VES-3/AS-3
VES-1/AS-1
VES-2/AS-2

Former Gasoline Fuel Pumps

Former Hydraulic Lift Area

Former Waste Oil Tanks (Basement)

1445 Harrison St.
1425 Harrison St.
parking lot
1440 - 1450 Harrison St.
1500 Harrison St.
Allright Parking
1432 Harrison St.
1424 Harrison St.
1439 Alice St.
301 14th St.
268 14th St.

FIGURE 4

GROUNDWATER HYDROCARBON CONCENTRATIONS
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540118_GRAB-GW.DWG

EXPLANATION

MW-2 — Monitoring well location

AS-2 — Vapor extraction / Air sparging coaxial well location

B-7 — Soil sample location

NOTE: Samples collected prior to May 2005

N

0 20 50ft

15th STREET

HARRISON STREET

14th STREET

ALICE STREET

building

parking

parking lot

covered

1515 Harrison St.

1445 Harrison St.

1425 Harrison St.

1440 - 1450 Harrison St.

1424 Harrison St.

1432 Harrison St.

1439 Alice St.

301 14th St.

268 14th St.

Former Gasoline Fuel Pumps

Allright Parking

Former Hydraulic Lift Area

Former Waste Oil Tanks (Basement)

MW-3

SB-M / MW-4 Date : Oct. 1996

Depth	20.0'
TPHg	<1.0
Benzene	<0.005
MTBE	<0.05

SB-N / MW-5 Date : Oct. 1996

Depth	20.0'
TPHg	<1.0
Benzene	<0.005
MTBE	<0.05

MW-2 Date : July 1994

Depth	5.0'	9.5'	15.0'
TPHg	<0.2	<0.2	<0.2
Benzene	<0.005	<0.005	**0.024**

VES-4 / AS-4 Date : July 1999

Depth	16.5'	25.0'	30.0'
TPHg	<1.0	**7,600**	<1.0
Benzene	<0.005	**150**	<0.005
MTBE	<0.05	**32**	<0.05

SB-H Date: July 1995

Depth	20.0'
TPHg	**350**
Benzene	**4.0**

B-23 Date : Feb. 1992

Depth	5.0'	10.0'
TPHg	**2.5**	**3.3**
Benzene	<0.005	<0.005
TPHd	**26**	<1

LFSB2 Date : May 1993

Depth	9.5'	19.5'	24.5'
TPHg	<0.2	**1,000**	**6,100**
Benzene	<0.005	<0.2	**91**

B-20 Date : Feb. 1992

Depth	5.0'	15.0'
TPHg	**2.0**	**2.5**
Benzene	<0.005	<0.005
TPHd	**24**	<1.0
Hg	**---**	**2.48**
As	**---**	**13.9**

2 Date: July 1990

Depth	18.5'
TPHg	**9,300**
Benzene	**98**

B-19 Date:Feb. 1992

Depth	5.0'
TPHg	**2.5**
Benzene	<0.005

SB-F Date: July 1995

Depth	20.0'
TPHg	**160**
Benzene	**1.9**

B-17 Date: Feb. 1992

Depth	5.0'
Hg	**3.56**

VES-1 / AS-1 Date : July 1999

Depth	16.5'	21.5'	30.5'
TPHg	<1.0	**5,600**	<1.0
Benzene	<0.005	**59**	<0.005
MTBE	<0.05	<10	<0.05

B-14 Date : Jan. 1992

Depth	5.0'	15.0'
TPHg	<1	**2.5**
Benzene	<0.005	**---**
TPHd	<1	**17.3**
MTBE	**---**	**---**
Hg	**28.1**	**32.8**
As	**27.5**	**32.7**

B-5 Date: Sep. 1990

Depth	22.5'
TPHg	**110**
Benzene	**0.024**

B-15 Date : Jan. 1992

Depth	5.0'	15.0'
Hg	**29.4**	**33.2**
As	**25.4**	**36.0**

LFSB1 Date : May 1993

Depth	4.0'	14.0'	24.5'
TPHg	**0.5**	<0.2	**8,800**
Benzene	<0.005	**0.020**	**210**

1 Date: July 1990

Depth	20.0'
TPHg	**6,300**
Benzene	**99**

SB-L Date: July 1995

Depth	20.0'
TPHg	**220**
Benzene	**1.6**

B-16 Date : Jan. 1992

Depth	5.0'	15.0'
Hg	**44.9**	**34.7**
As	**41.8**	**26.0**

B-4 Date: Sep. 1990

Depth	10.0'
TPHd	**1,700**

SB-P Date : Oct. 1996

Depth	3.75'	12.7'
TPHg	**3.8**	**1,500**
Benzene	<0.005	**0.55**
MTBE	<0.05	**2.0**

VES-2 / AS-2 Date : July 1999

Depth	16.5'	26.5'	30.0'
TPHg	**2.2**	**4,300**	<1.0
Benzene	<0.005	**35**	<0.005
MTBE	<0.05	<10	<0.05

SB-Q Date : Oct. 1996

Depth	3.75'	9.6'
TPHg	**4.3**	**1,900**
Benzene	**0.006**	**0.95**
MTBE	<0.02	<1.4

B-13 Date : Jan. 1992

Depth	5.0'	15.0'
TPHg	**8.32**	**135**
Benzene	<0.005	**---**
TPHd	**1.63**	<1
MTBE	**---**	**---**
Hg	**45.4**	**35.5**
As	**47.3**	**27.4**

SB-O/MW-6 Date: Oct. 1996

Depth	20.5'
TPHg	<1.0
Benzene	<0.005
MTBE	<0.05

B-21 Date : Feb. 1992

Depth	5.0'	10.0'	15.0'
TPHg	**2.1**	**1.9**	**2**
Benzene	<0.005	<0.005	<0.005
TPHd	**16.7**	**15.7**	**22.7**

B-8 Date: Sep.1990

Depth	22.5'
TPHg	**1,200**
Benzene	**2.3**

CB-2 Date : July 1999

Depth	12.0'	15.0'	20.5'	24.0'
TPHg	<1.0	<1.0	**4.2**	**4.8**
Benzene	<0.005	<0.005	<0.005	**0.006**
MTBE	<0.05	<0.05	<0.05	<0.05

VES-3 / AS-3 Date : July 1999

Depth	15.5'	20.5'	30.5'
TPHg	**1.3**	**2,100**	**1.4**
Benzene	**0.011**	<0.5	**0.062**
MTBE	<0.05	<10	<0.05

B-22 Date : Feb. 1992

Depth	5.0'	10.0'
TPHg	**42.3**	**1,540**
Benzene	<0.005	**0.987**
TPHd	**670**	**175**

CB-1 Date : July 1999

Depth	10.0'	16.0'	20.0'	24.0'
TPHg	<1.0	<1.0	<1.0	**1,500**
Benzene	<0.005	<0.005	<0.005	**2.3**
MTBE	<0.05	<0.05	<0.05	<2

B-7 Date : Sep. 1990

Depth	13.0'	20.0'
TPHg	<1.0	**2,500**
Benzene	<0.005	**3.5**

figure 5

PRE-REMEDIATION SOIL CONCENTRATIONS
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540188_PRE-REM-SOIL.DWG

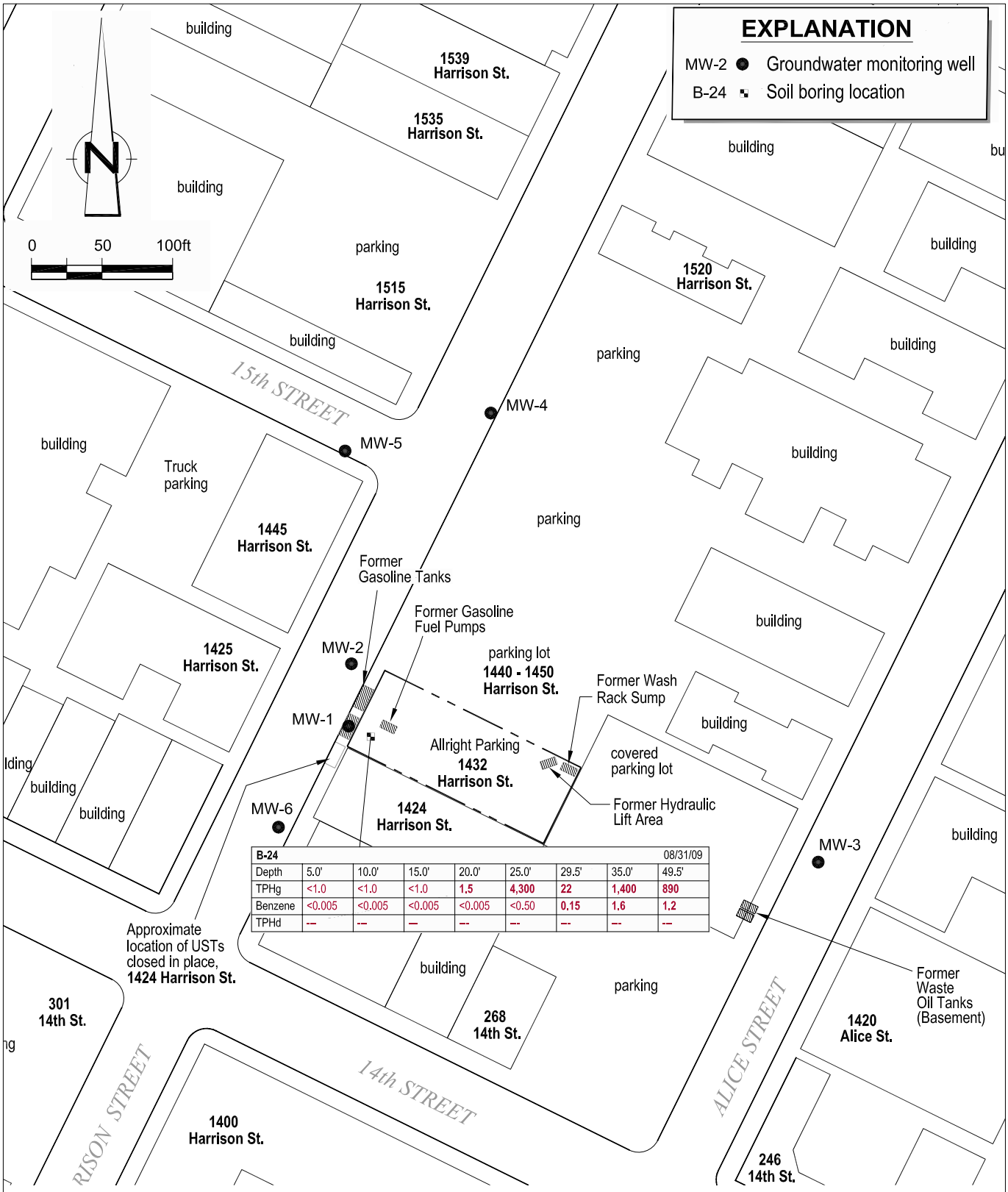
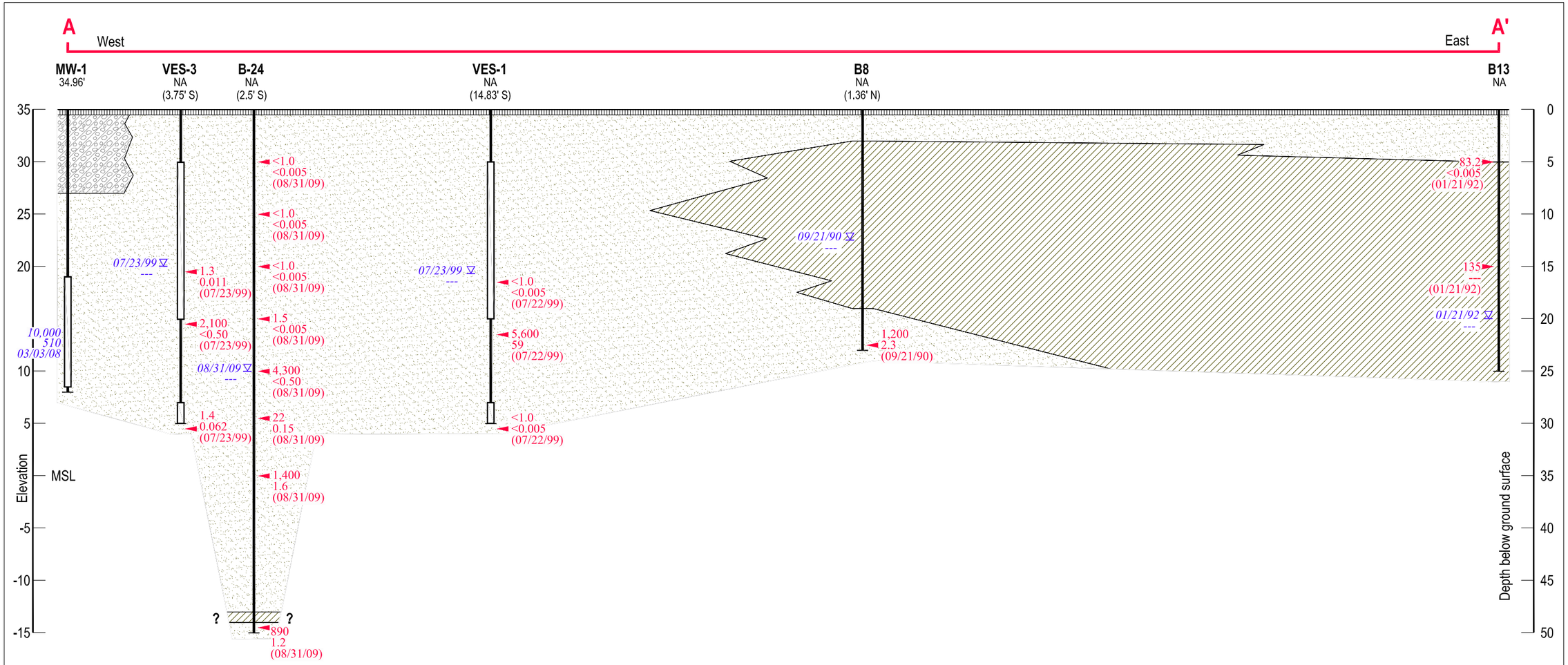
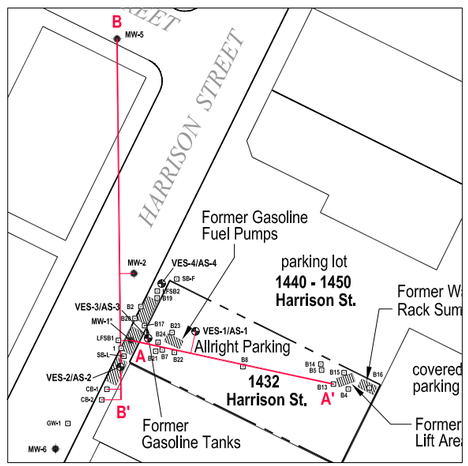


FIGURE 6

POST-REMEDIATION SOIL CONCENTRATIONS
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540188-POST-REM-SOIL.DWG





EXPLANATION

- = Clayey Sands and Clays
- = Silty Sands and Sands
- = Fill
- = Concrete / Asphalt
- Approximate sample location
- TPHg / Benzene (Date): Hydrocarbon concentrations in Soil, in parts per million
- *TPHg / Benzene (Date)*: Hydrocarbon concentrations in Groundwater, in parts per billion

Well ID — Well Designation
Elev. (offset) — Top of Casing Elevation
Groundwater Monitoring Well
Well Screen Interval
Bottom of boring

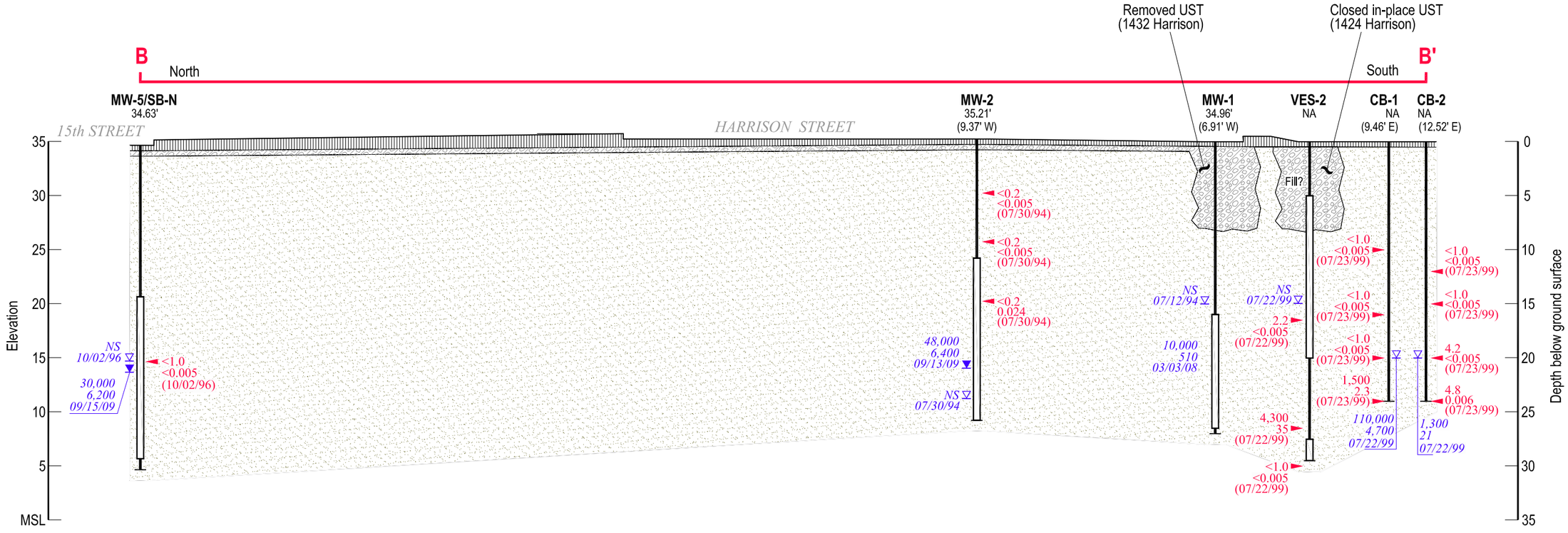
- Depth of First Encountered Groundwater
- Depth of Groundwater
- ND Not Detected
- --- Not Analyzed

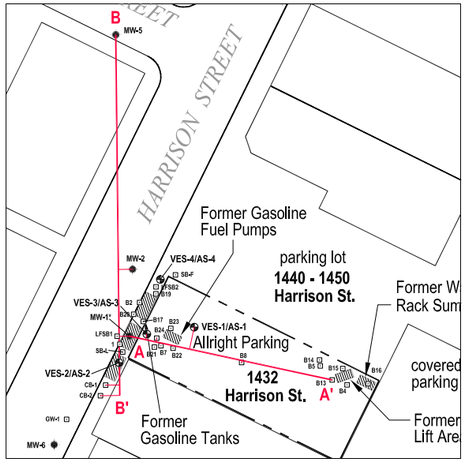
10
Scale (ft)
0
10

figure 7

GEOLOGIC CROSS SECTION A-A'
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540188_CROSS-SECTIONS.DWG





EXPLANATION

- = Clayey Sands and Clays
- = Silty Sands and Sands
- = Fill
- = Concrete / Asphalt
- Approximate sample location
- TPHg / Benzene (Date) — Hydrocarbon concentrations in Soil, in parts per million
- *TPHg / Benzene (Date)* — Hydrocarbon concentrations in Groundwater, in parts per billion
- Well ID / Elev. (offset) — Well Designation / Top of Casing Elevation
- Groundwater Monitoring Well
- Well Screen Interval
- Bottom of boring
- ▽ Depth of First Encountered Groundwater
- ▼ Depth of Groundwater
- ND Not Detected
- --- Not Analyzed

10
Scale (ft)
0
20

figure 8

GEOLOGIC CROSS SECTION B-B'
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540188_CROSS-SECTIONS.DWG

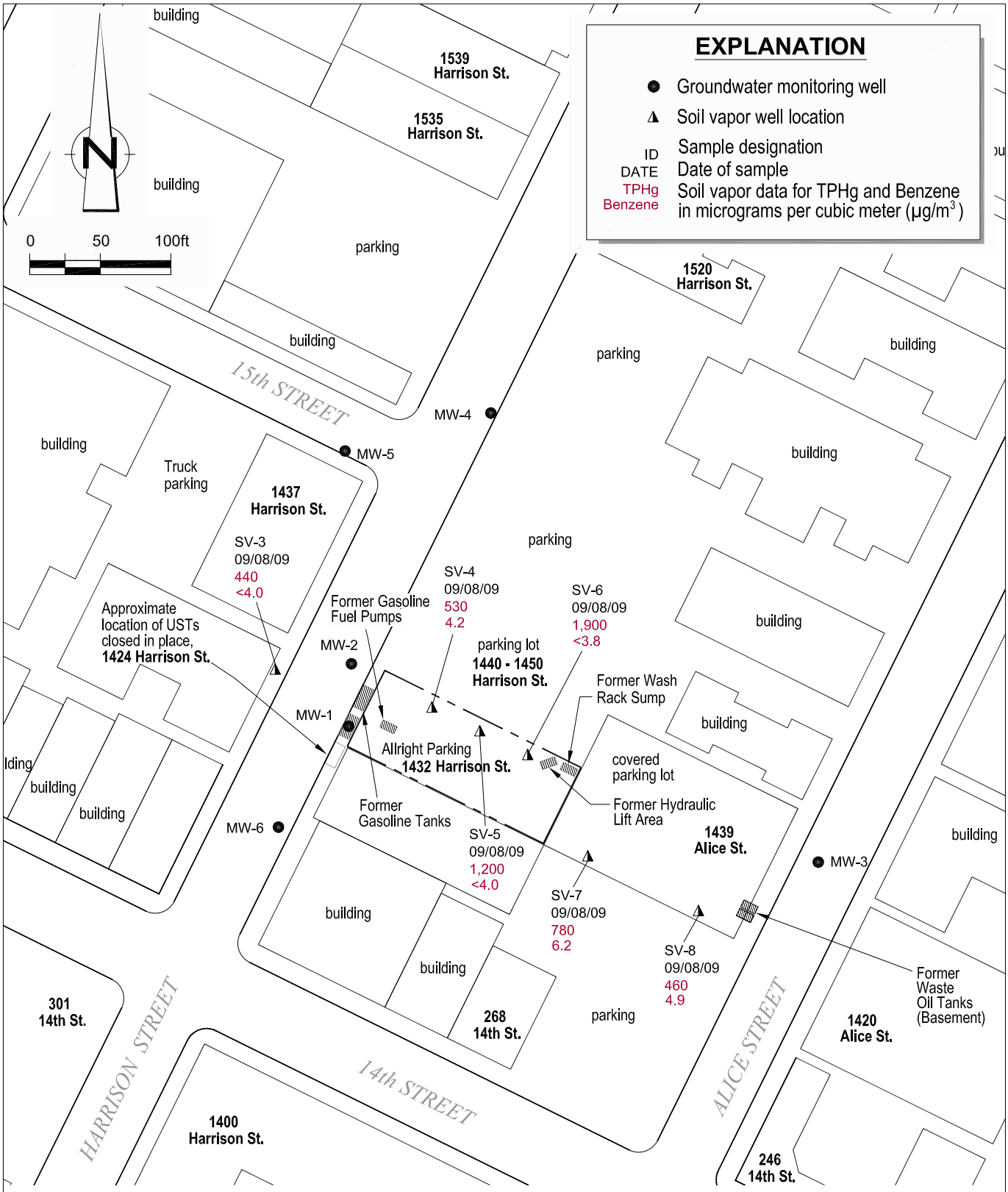


FIGURE 9
SOIL GAS SAMPLING RESULTS
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540188_SOIL-SAMP.DWG

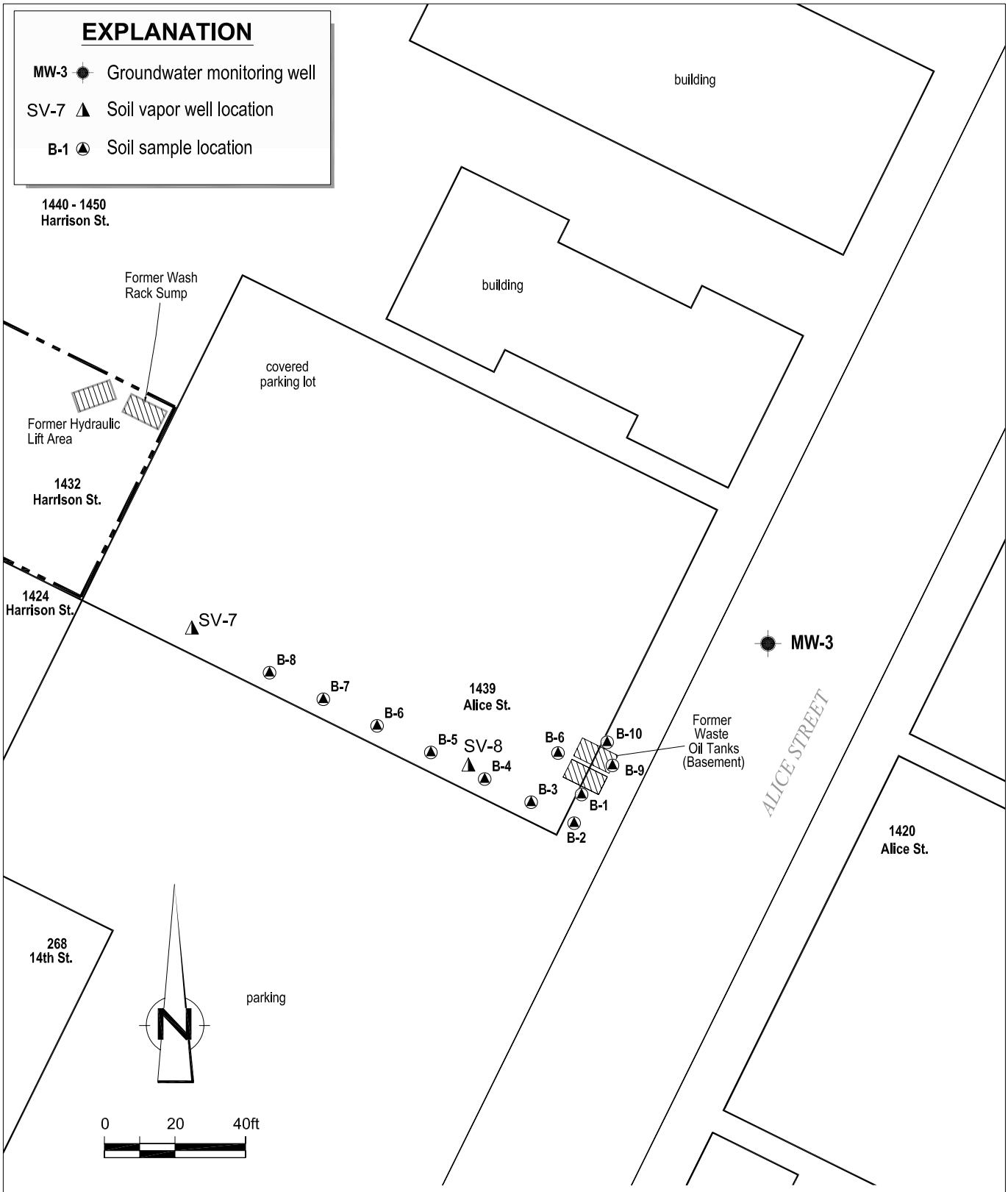


FIGURE 10

SITE MAP

1439 ALICE STREET

Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540188_ALICE.DWG

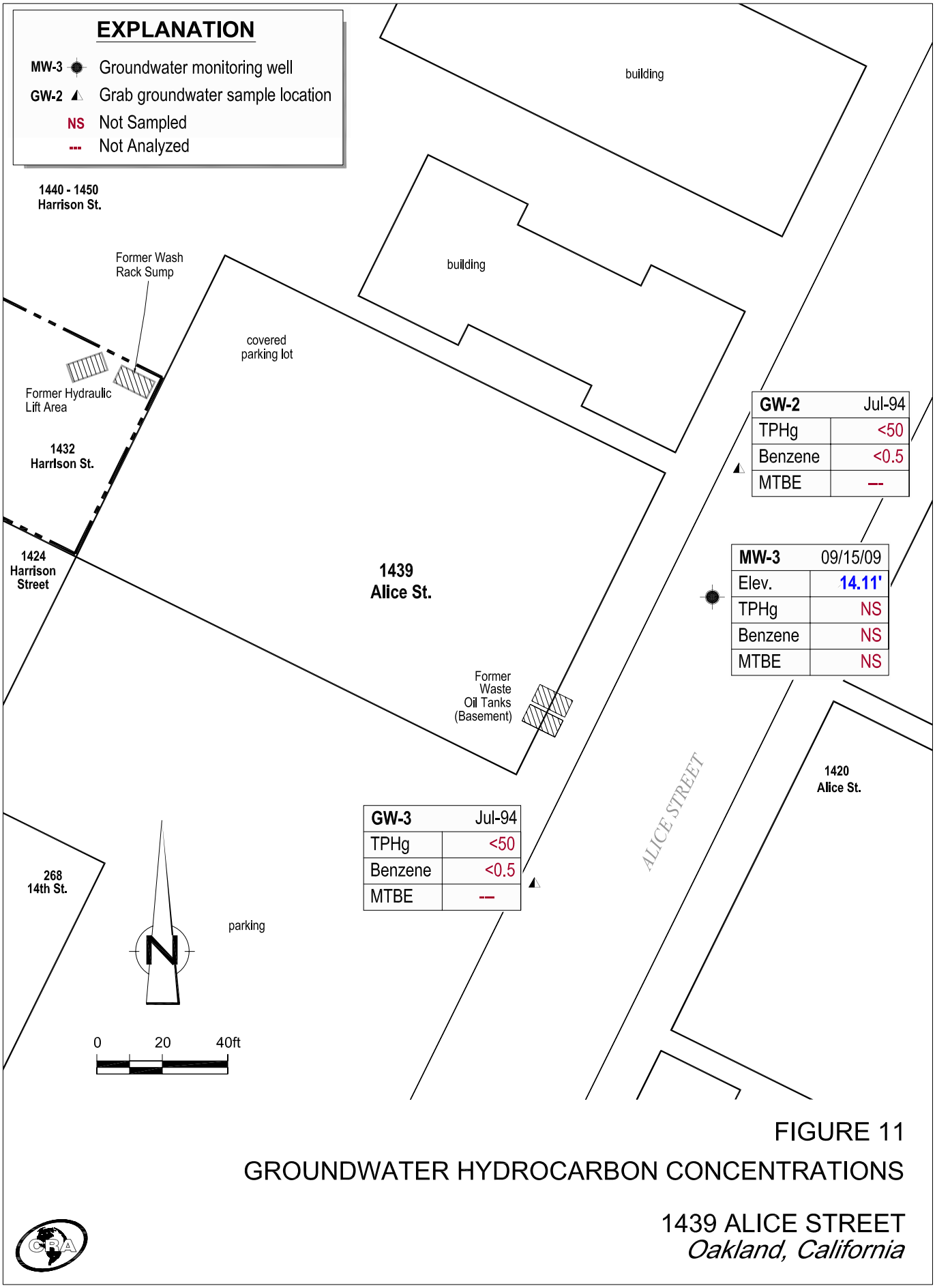


FIGURE 11

GROUNDWATER HYDROCARBON CONCENTRATIONS

1439 ALICE STREET

Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540188_ALICE-GRAB-GW.DWG

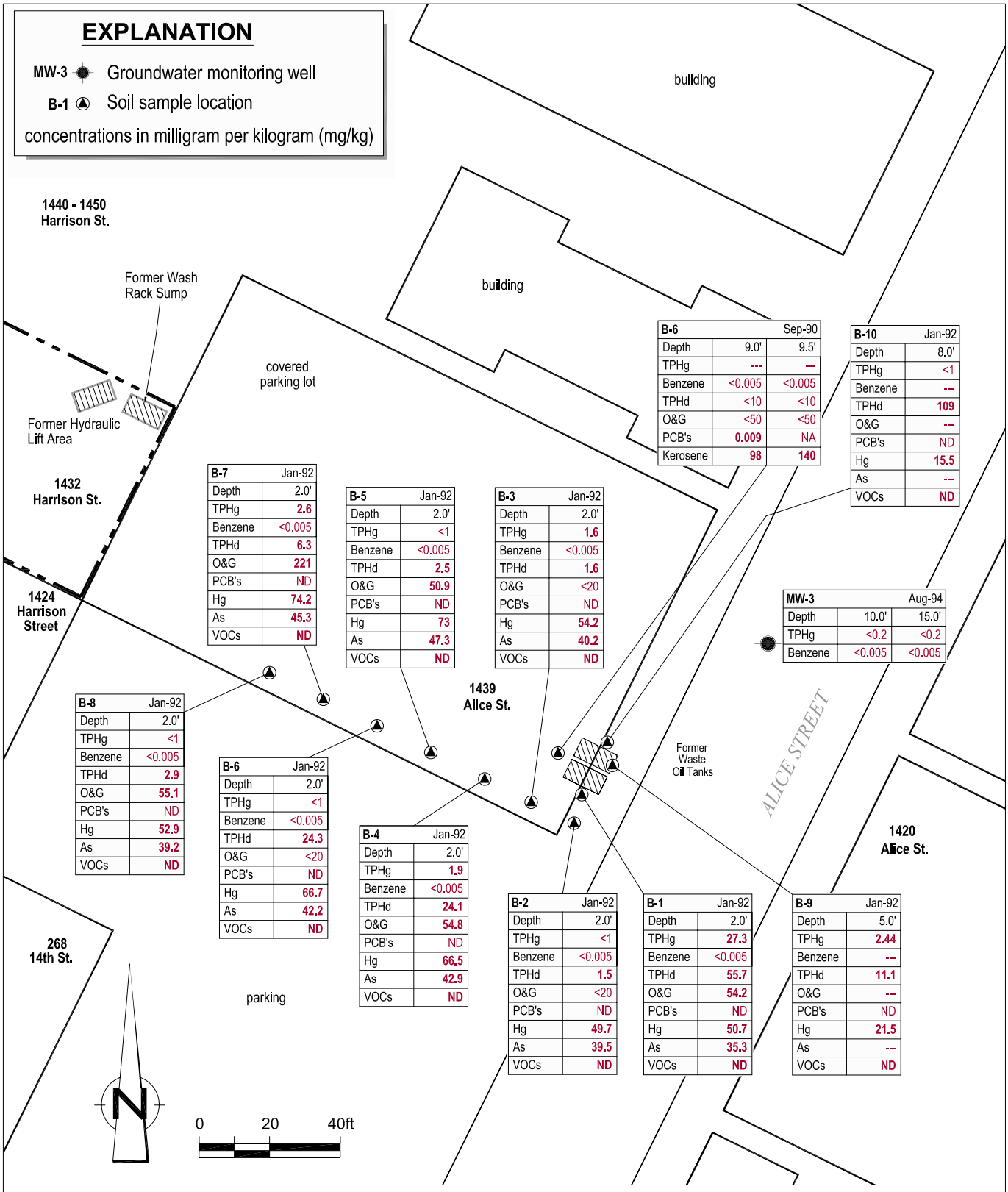


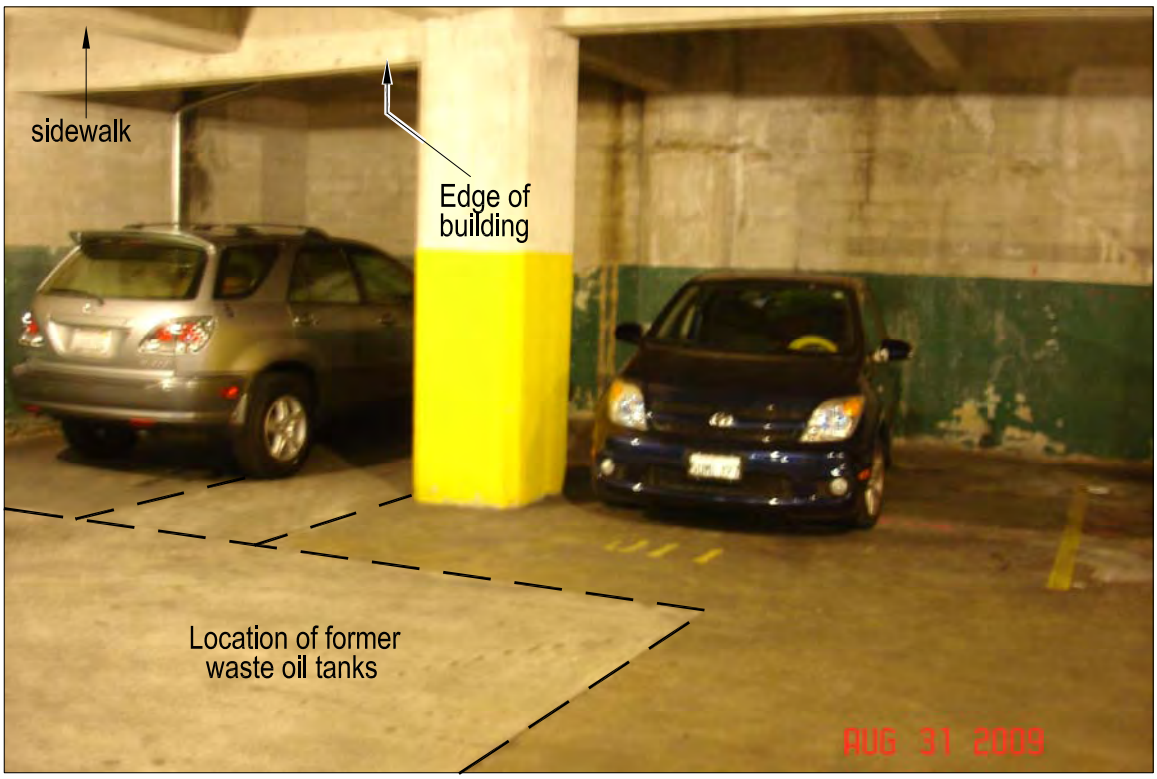
FIGURE 12

PRE REMEDIATION SOIL CONCENTRATIONS

1439 ALICE STREET

Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540188_ALICE-PRE-REM-SOIL.DWG



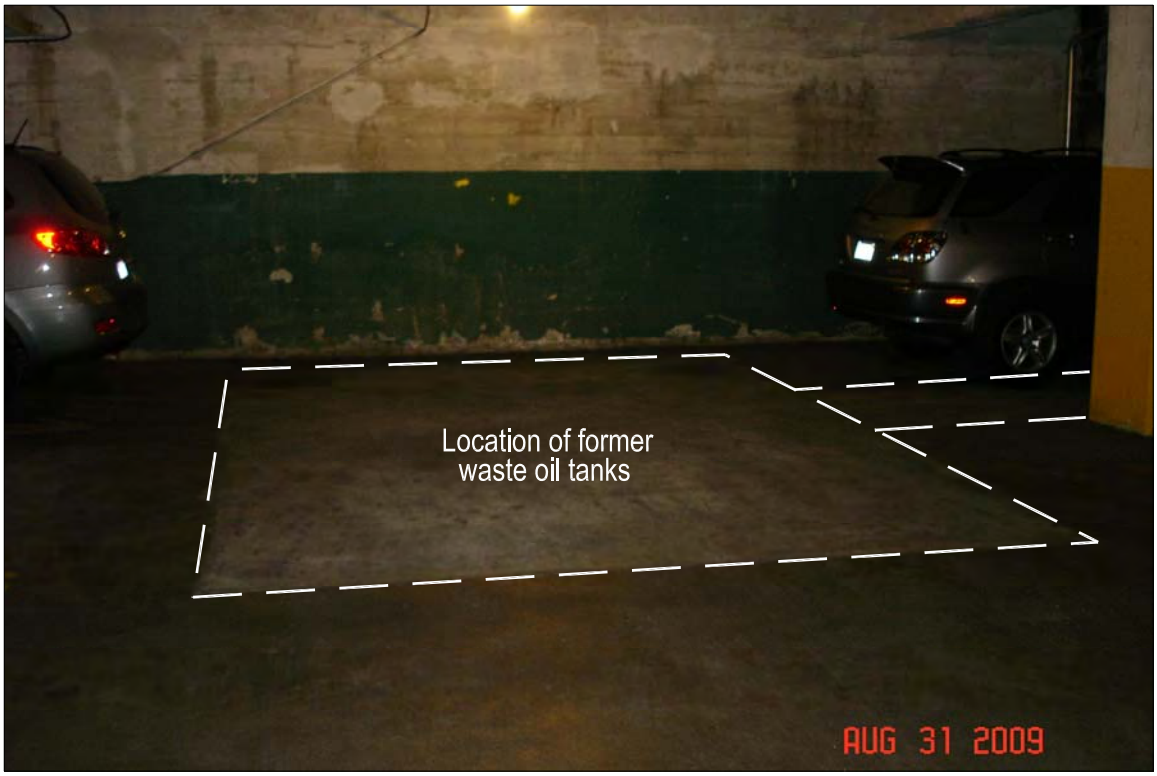


FIGURE 13

PHOTOS
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540188-PHOTOS.DWG

TABLES

TABLE 1

WELL CONSTRUCTION DETAILS
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well No.	*Installation Date*	*Total Depth (ft-bgs)*	*Boring Diameter (inch)*	*Well Diameter (inch)*	*Screen Size (inch)*	*Screened Interval (ft-bgs)*	*Sand Pack Interval (ft-bgs)*	*Surface Seal (ft-bgs)*	*TOC Elevation (ft-msl)*
MW-1	1/12/1994	27	12	4	0.020	16-26.5	14.5-27	0-14.5	35.37
MW-2	7/30/1994	26		2	0.010	11-26	9-26	0-9	35.21
MW-3	7/30/1994	25		2	0.010	15-25	13-25	0-13	34.01
MW-4	10/2/1996	25	8	2	0.010	15-25	13-25	0-13	33.75
MW-5	10/2/1996	30	8	2	0.010	14-29	12-30	0-12	34.63
MW-6	10/2/1996	30.5	8	2	0.010	14-29	30-Dec	0-12	35.89
VES-1 (VE)	7/23/1999	30	8	3	0.020	5-20	4.5-20	0-5	--
VES-1 (AS)				1	0.020	28-30	27.5-30	0-27.5	--
VES-2 (VE)	7/22/1999	29.5	8	3	0.020	5-20	4-20	0-4	--
VES-2 (AS)				1	0.020	27.5-29.5	27-29.5	0-27	--
VES-3 (VE)	7/23/1999	30	8	3	0.020	5-20	4-20	0-4	--
VES-3 (AS)				1	0.020	28-30	25-30	0-25	--
VES-4 (VE)	7/23/1999	29	8	3	0.020	5-20	4-20	0-4	--
VES-4 (AS)				1	0.020	27-29	26.5-28.5	0-26.5	--
SV-3	8/31/2009	5.5	3	1/4	probe	4.8-5.3	4.5-5.5	0.5-4.5	--
SV-4	8/31/2009	5.75	3	1/4	probe	4.8-5.3	4.5-5.75	0.5-4.5	--
SV-5	8/31/2009	5.5	3	1/4	probe	4.8-5.3	4.5-5.5	0.5-4.5	--
SV-6	8/31/2009	5.5	3	1/4	probe	4.8-5.3	4.5-5.5	0.5-4.5	--
SV-7	8/31/2009	5.75	3	1/4	probe	4.8-5.3	4.5-5.75	0.5-4.5	--
SV-8	8/31/2009	5.5	3	1/4	probe	4.8-5.3	4.5-5.5	0.5-4.5	--

Notes:
ft-bgs = Feet below ground surface
ft-msl = Feet above mean sea level
-- = Not surveyed
VE = Vapor extraction
AS = Air sparge
SV = Soil Vapor Well

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID / *Sample ID* / *TOC (ft amsl)*	*Date*	*Depth to Groundwater (ft below TOC)*	*SPH Thickness (feet)*	*TOC Groundwater Elevation (ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←			(µg/L)	→		
Monitoring Well Sample Results:											
MW-1	8/1/1994	--	--	--	170,000	35,000	51,000	2,400	13,000	--	--
34.95	12/21/1994	19.53	--	15.42	180,000	41,000	64,000	3,100	100,000	--	--
	3/13/1995	18.66	--	16.29	150,000	31,000	45,000	2,500	17,000	--	--
	6/27/1995	18.20	--	16.75	71,000	17,000	18,000	1,600	7,700	--	--
	7/7/1995	18.35	--	16.60	71,000	17,000	18,000	1,600	7,700	--	--
	9/28/1995	18.20	--	16.75	110,000	27,000	34,000	1,700	14,000	--	--
	12/20/1995	19.96	--	14.99	120,000	33,000	43,000	2,300	15,000	--	--
	3/26/1996	19.27	--	15.68	140,000	29,000	36,000	1,900	13,000	<200*	d
	6/20/1996	18.64	--	16.31	110,000	30,000	38,000	2,200	13,000	<200*	--
	9/26/1996	19.35	--	15.60	170,000	28,000	40,000	2,200	15,000	ND**	--
	10/28/1996	19.58	--	15.37	--	--	--	--	--	--	--
	12/12/1996	19.68	--	15.27	110,000	36,000	47,000	2,500	16,000	ND*	--
	3/31/1997	18.80	--	16.15	160,000	24,000	39,000	1,900	13,000	ND*	--
	6/27/1997	19.26	--	15.69	130,000	25,000	36,000	2,000	14,000	ND*	--
	9/9/1997	19.70	--	15.25	99,000	22,000	27,000	1,600	13,000	270*	--
	12/18/1997	19.25	--	15.70	160,000	30,000	44,000	2,200	15,000	ND***	--
	3/12/1998	17.52	--	17.43	190,000	20,000	49,000	2,500	18,000	ND***	--
	6/22/1998	18.63	--	16.32	90,000	19,000	40,000	2,100	16,000	--	--
	9/18/1998	18.60	--	16.35	190,000	29,000	48,000	2,400	17,000	--	--
	12/23/1998	19.18	--	15.77	140,000	24,000	44,000	2,000	8,200	--	--
	3/29/1999	18.52	--	16.43	181,000	22,200	40,100	1,844	12,200	--	--
	6/23/1999	18.60	--	16.35	80,000	20,000	33,000	1,600	11,000	--	--
	9/24/1999	19.05	--	15.90	117,000	15,100	20,700	1,550	11,800	--	--
	12/23/1999	19.95	--	15.00	186,000	25,900	39,000	1,990	12,400	--	--
	3/21/2000	18.48	--	16.47	210,000	35,000	42,000	2,200	13,000	<3,000	a
	7/3/2000	18.95	--	16.00	200,000	33,000	46,000	2,200	15,000	<200*	a
	9/7/2000	19.45	Sheen [Field]	15.50	--	--	--	--	--	--	--
	12/5/2000	19.90	--	15.05	220,000	42,000	57,000	2,700	17,000	<200	a
	3/6/2001	18.20	--	16.75	180,000	27,000	39,000	2,000	13,000	<1200* /<20***	a,l
	6/8/2001	20.14	--	14.81	170,000	28,000	40,000	1,900	13,000	<200	a
	8/27/2001	21.19	--	13.76	130,000	24,000	33,000	1,600	11,000	<350	a
	10/25/2001	21.74	--	13.21	160,000	22,000	28,000	1,500	10,000	<350	a
	3/1/2002	21.39	0.41	13.84[x]	--	--	--	--	--	--	--
	6/10/2002	22.30	--	12.65	210,000	30,000	51,000	3,100	22,000	<1,000*	a
34.96	9/3/2002	21.40	--	13.56	2,500,000	31,000	170,000	29,000	170,000	2,500,000*	a
	12/22/2002	20.50	--	14.46	89,000	2,600	9,300	530	28,000	<1,700	a,m

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID *Sample ID* *TOC (ft amsl)*	*Date*	*Depth to Groundwater* *(ft below TOC)*	*SPH Thickness* *(feet)*	*TOC Groundwater Elevation* *(ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←			*(µg/L)*	→		
MW-1 cont.	1/23/2003	18.57	Sheen [Lab]	16.39	130,000	600	1,600	<100	41,000	<50***	a,b,l
	6/12/2003	19.10	0.07	15.91[x]	--	--	--	--	--	--	--
	7/23/2003	19.42	0.07	15.59[x]	--	--	--	--	--	--	--
35.37#	12/22/2003	17.09	0.01	18.29[x]	--	--	--	--	--	--	--
	3/10/2004	13.82	--	21.55	22,000	190	250	<10	5,100	<100	a,c
	6/16/2004	14.75	--	20.62	2,700	23	160	13	520	<25	a
	9/27/2004	18.02	Sheen [Field]	17.35	27,000	580	2,000	56	6,800	<10***	a,m
	12/22/2004	11.25	--	24.12	250	3.5	18	<0.5	47	<0.5***	a,m
	3/3/2005	14.42	--	20.95	320	5.2	13	3.2	46	<5.0	a
34.96##	6/9/2005	17.80	--	17.16	--	--	--	--	--	--	+
	9/9/2005	18.26	--	16.70	--	--	--	--	--	--	+
	12/20/2005	18.68	--	16.28	--	--	--	--	--	--	+
	3/26/2006	16.96	--	18.00	23,000	270	400	65	4,400	<50	a
	6/23/2006	17.55	--	17.41	30,000	340	680	170	6,900	<500	a,m
	9/7/2006	18.53	--	16.43	34,000	540	630	190	7,000	<500	a
	12/29/2006	19.43	Sheen [Field]	15.53	20,000	550	55	130	4,700	<100*/<0.5***	a,m
	3/21/2007	18.92	Sheen [Field]	16.04	23,000	910	210	140	5,900	<250*	a
	6/7/2007	19.22	Sheen [Field]	15.74	24,000	680	61	190	4,300	<100*	a,b
	9/28/2007	20.19	--	14.77	--	--	--	--	--	--	+
	12/9/2007	20.40	--	14.56	--	--	--	--	--	--	+
	3/3/2008	19.16	Sheen [Lab]	15.80	10,000	510	28	<10	1,700	<2.5***	a,b,m,l
	6/4/2008	20.05	--	14.91	--	--	--	--	--	--	--
	9/9/2008	20.40	--	14.56	--	--	--	--	--	--	--
	12/5/2008	20.42	--	14.54	--	--	--	--	--	--	--
	3/2/2009	20.39	--	14.57	--	--	--	--	--	--	--
	9/15/2009	**Well Dry**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-2	8/1/1994	--	--	--	130,000	28,000	35,000	3,000	12,000	--	--
35.18	12/21/1994	19.91	--	15.27	200	140,000	200,000	3,500	22,000	--	--
	3/13/1995	19.15	--	16.03	500	9,200	23,000	7,000	36,000	--	--
	6/27/1995	18.74	--	16.44	120,000	23,000	30,000	2,700	13,000	--	--
	7/7/1995	18.80	--	16.38	120,000	23,000	30,000	2,700	13,000	--	--
	9/28/1995	19.30	--	15.88	110,000	23,000	29,000	2,500	11,000	--	--
	12/20/1995	20.24	--	14.94	83,000	980	1,800	2,200	10,000	--	--
	3/26/1996	19.69	--	15.49	150,000	23,000	32,000	2,800	12,000	<200*	d
	6/20/1996	19.20	--	15.98	94,000	15,000	23,000	2,400	12,000	<200*	--
	9/26/1996	19.80	--	15.38	150,000	20,000	29,000	2,800	12,000	ND**	--

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID / *Sample ID* / *TOC (ft amsl)*	*Date*	*Depth to Groundwater (ft below TOC)*	*SPH Thickness (feet)*	*TOC Groundwater Elevation (ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←			(µg/L)		→	
MW-2 cont.	10/28/1996	20.18	--	15.00	--	--	--	--	--	--	--
	12/12/1996	20.17	--	15.01	58,000	3,100	11,000	1,700	8,100	220*	--
	3/31/1997	19.67	--	15.51	38,000	6,000	7,900	690	3,300	ND*	--
	6/27/1997	19.68	--	15.50	62,000	13,000	16,000	1,300	6,000	ND*	--
	9/9/1997	20.20	--	14.98	81,000	16,000	18,000	1,800	8,600	ND***	--
	12/18/1997	19.80	--	15.38	110,000	18,000	26,000	2,200	9,500	ND***	--
	3/12/1998	18.07	--	17.11	120,000	16,000	26,000	2,200	9,400	ND***	--
	6/22/1998	18.29	--	16.89	38,000	9,800	9,500	1,500	6,000	--	--
	9/18/1998	19.09	--	16.09	68,000	12,000	16,000	1,400	5,900	--	--
	12/23/1998	19.67	--	15.51	180,000	16,000	22,000	2,200	8,300	--	--
	3/29/1999	18.97	--	16.21	16,600	1,380	1,920	373	1,840	--	--
	6/23/1999	18.25	--	16.93	41,000	10,000	9,400	1,100	5,000	--	--
	9/24/1999	19.60	--	15.58	40,600	4,880	3,490	1,090	4,560	--	--
	12/23/1999	20.21	--	14.97	61,900	6,710	9,320	1,150	5,360	--	--
	3/21/2000	18.93	--	16.25	98,000	14,000	21,000	1,600	6,900	<1600	a
	7/3/2000	19.38	--	15.80	140,000	18,000	33,000	2,600	11,000	<200*	a
	9/7/2000	19.83	--	15.35	110,000	17,000	21,000	2,200	9,700	<100***	a,l
	12/5/2000	20.30	--	14.88	130,000	19,000	28,000	2,500	11,000	<200	a
	3/6/2001	19.57	--	15.61	32,000	3,400	3,400	580	2,500	<200	a
	6/8/2001	20.59	--	14.59	72,000	9,400	9,200	1,300	5,800	<200	a
	8/27/2001	21.79	--	13.39	110,000	17,000	28,000	2,600	11,000	<950	a
	10/25/2001	22.05	--	13.13	110,000	15,000	18,000	2,000	8,700	<350	a
	3/1/2002	21.80	--	13.38	3,100	370	180	62	330	<5.0*	a
	6/10/2002	22.83	--	12.35	7,800	2,000	1,100	76	570	<100*	a
35.21	9/3/2002	22.03	--	13.18	21,000	2,400	2,900	320	1,400	<500	a
	12/22/2002	22.70	--	12.51	630	48	56	19	82	<5.0	a
	1/23/2003	20.49	--	14.72	1,100	27	32	19	150	<25	a
	6/12/2003	21.03	--	14.18	10,000	2,100	1,600	150	660	<250	a
	7/23/2003	21.40	--	13.81	28,000	4,800	4,800	380	1,700	<500	a
	12/22/2003	19.33	--	15.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/10/2004	19.33	--	15.88	3,100	460	290	38	240	<50	a
	6/16/2004	19.90	--	15.31	9,100	1,600	1,200	220	830	<400	a
	9/27/2004	22.08	--	13.13	14,000	2,800	490	340	1,600	<350	a
	12/22/2004	21.74	--	13.47	1,100	300	28	22	71	<15	a
	3/3/2005	19.60	--	15.61	340	12	4.4	9.1	28	<10	a
	6/9/2005	18.65	--	16.56	240	22	2.7	6.4	27	<10	a
	9/9/2005	19.27	--	15.94	7,800	1,100	170	380	690	<160	a

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID *Sample ID* *TOC (ft amsl)*	*Date*	*Depth to Groundwater (ft below TOC)*	*SPH Thickness (feet)*	*TOC Groundwater Elevation (ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←			*(µg/L)*		→	
MW-2 cont.	12/20/2005	19.70	--	15.51	150	10	1.9	2.8	10	<5.0	a
	3/26/2006	18.51	--	16.70	2,200	93	19	66	130	<50	a
	6/23/2006	18.47	--	16.74	8,800	1,600	110	500	480	<500	a,m
	9/7/2006	18.97	--	16.24	29,000	4,800	280	940	1,000	<500	a
	12/29/2006	19.76	--	15.45	4,500	720	54	250	480	75*[1]/<0.5***	a
	3/21/2007	19.59	--	15.62	34,000	9,100	500	890	2,500	<1,100*	a
	6/7/2007	19.74	Sheen [Lab]	15.47	46,000	7,100	410	870	2,400	<800*	a,b
	9/28/2007	20.23	--	14.98	44,000	9,400	630	1,400	3,600	<0.5***	a
	12/9/2007	20.68	--	14.53	37,000	8,400	550	1,400	4,500	<17***	a,l
	3/3/2008	20.11	--	15.10	40,000	7,700	490	1,400	4,400	<17***	a,l
	6/4/2008	20.40	--	14.81	56,000	7,400	600	1,500	4,100	<25***	a,j
	9/9/2008	20.85	--	14.36	65,000	7,800	510	1,700	4,700	<25***	a,l
	12/5/2008	←			Well Inaccessible					→	
	3/2/2009	←			Well Inaccessible					→	
	9/15/2009	**21.22**	**--**	**13.99**	**48,000**	**6,400**	**600**	**1,900**	**2,800**	**<2.5*** **	**a,l**
MW-3	8/1/1994	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--
33.97	12/21/1994	18.82	--	15.15	<50	<0.5	<0.5	<0.5	<0.5	--	--
	3/13/1995	17.86	--	16.11	<50	<0.5	<0.5	<0.5	<0.5	--	e
	7/7/1995	18.25	--	15.72	--	--	--	--	--	--	f,g
	9/28/1995	18.00	--	15.97	--	--	--	--	--	--	h
	12/20/1995	18.74	--	15.23	--	--	--	--	--	--	--
	3/26/1996	18.25	--	15.72	--	--	--	--	--	--	--
	6/20/1996	18.35	--	15.62	--	--	--	--	--	--	--
	9/26/1996	19.12	--	14.85	--	--	--	--	--	--	--
	10/28/1996	19.11	--	14.86	--	--	--	--	--	--	--
	12/12/1996	18.61	--	15.36	--	--	--	--	--	--	--
	3/31/1997	18.35	--	15.62	--	--	--	--	--	--	--
	6/27/1997	18.81	--	15.16	--	--	--	--	--	--	--
	9/9/1997	19.18	--	14.79	--	--	--	--	--	--	--
	12/18/1997	18.64	--	15.33	--	--	--	--	--	--	--
	3/12/1998	17.56	--	16.41	--	--	--	--	--	--	--
	6/22/1998	18.64	--	15.33	--	--	--	--	--	--	--
	9/18/1998	18.33	--	15.64	--	--	--	--	--	--	--
	12/23/1998	18.60	--	15.37	--	--	--	--	--	--	--
	3/29/1999	17.85	--	16.12	--	--	--	--	--	--	--
	6/23/1999	18.67	--	15.30	--	--	--	--	--	--	--

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID *Sample ID* *TOC (ft amsl)*	*Date*	*Depth to Groundwater (ft below TOC)*	*SPH Thickness (feet)*	*TOC Groundwater Elevation (ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←			(µg/L)		→	
MW-3 cont.	9/24/1999	18.64	--	15.33	--	--	--	--	--	--	--
	12/23/1999	19.32	--	14.65	--	--	--	--	--	--	--
	3/21/2000	17.89	--	16.08	--	--	--	--	--	--	--
	7/3/2000	18.40	--	15.57	--	--	--	--	--	--	--
	9/7/2000	18.75	--	15.22	--	--	--	--	--	--	--
34.01	12/5/2000	19.03	--	14.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/2001	18.12	--	15.85	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/2001	20.02	--	13.95	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	8/27/2001	21.09	--	12.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	10/25/2001	21.29	--	12.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/1/2002	21.14	--	12.83	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	6/10/2002	21.99	--	11.98	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	9/3/2002	21.17	--	12.84	--	--	--	--	--	--	--
	12/22/2002	21.94	--	12.07	--	--	--	--	--	--	--
	1/23/2003	20.08	--	13.93	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/12/2003	20.95	--	13.06	--	--	--	--	--	--	--
	7/23/2003	21.28	--	12.73	--	--	--	--	--	--	--
	12/22/2003	19.05	--	14.96	--	--	--	--	--	--	--
	3/10/2004	18.22	--	15.79	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/16/2004	18.82	--	15.19	--	--	--	--	--	--	--
	9/27/2004	21.03	--	12.98	--	--	--	--	--	--	--
	12/22/2004	20.69	--	13.32	--	--	--	--	--	--	--
	3/3/2005	17.94	--	16.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/9/2005	18.00	--	16.01	--	--	--	--	--	--	--
	9/9/2005	18.43	--	15.58	--	--	--	--	--	--	--
	12/20/2005	18.18	--	15.83	--	--	--	--	--	--	--
	3/26/2006	17.42	--	16.59	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/23/2006	17.77	--	16.24	--	--	--	--	--	--	--
	9/7/2006	18.20	--	15.81	--	--	--	--	--	--	--
	12/29/2006	18.49	--	15.52	--	--	--	--	--	--	--
	3/21/2007	18.44	--	15.57	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	6/7/2007	18.68	--	15.33	--	--	--	--	--	--	--
	9/28/2007	19.19	--	14.82	--	--	--	--	--	--	--
	12/9/2007	19.31	--	14.70	--	--	--	--	--	--	--
	3/3/2008	18.68	--	15.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	--
	6/4/2008	19.11	--	14.90	--	--	--	--	--	--	--
	9/9/2008	19.65	--	14.36	--	--	--	--	--	--	--

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ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID *Sample ID* *TOC (ft amsl)*	*Date*	*Depth to Groundwater (ft below TOC)*	*SPH Thickness (feet)*	*TOC Groundwater Elevation (ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←			*(µg/L)*		→	
MW-3 cont.	12/5/2008	19.96	--	14.05	--	--	--	--	--	--	--
	3/2/2009	19.19	--	14.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	
	9/15/2009	**19.90**	**--**	**14.11**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-4	10/28/1996	19.32	--	14.43	10,000	3,900	420	400	360	<200*	n
33.75	12/12/1996	19.42	--	14.33	11,000	4,200	410	420	260	32*	--
	3/31/1997	18.67	--	15.08	ND	ND	ND	ND	ND	ND*	--
	6/27/1997	19.08	--	14.67	160	49	1.2	ND	5.9	ND*	--
	9/9/1997	19.33	--	14.42	7,400	5,000	410	230	470	33*	--
	12/18/1997	19.17	--	14.58	710	170	8.0	ND	39	ND***	--
	3/12/1998	17.68	--	16.07	1,300	410	21	ND	57	ND***	--
	6/22/1998	17.63	--	16.12	ND	ND	ND	ND	ND	--	--
	9/18/1998	18.58	--	15.17	ND	42	1.6	ND	4.8	--	--
	12/23/1998	19.01	--	14.74	1,900	1,000	76	50	120	--	--
	3/29/1999	18.35	--	15.40	ND	ND	ND	ND	ND	--	--
	6/23/1999	17.58	--	16.17	ND	ND	ND	ND	ND	--	--
	9/24/1999	19.05	--	14.70	9,150	3,270	131	34	537	--	--
	12/23/1999	19.41	--	14.34	12,200	5,360	275	424	592	--	--
	3/21/2000	18.42	--	15.33	45,000	16,000	1,100	1,400	1,900	1400* /<35***	a,l
	7/3/2000	18.82	--	14.93	33,000	10,000	720	840	1,800	<200*	a
	9/7/2000	19.21	--	14.54	26,000	8,800	800	740	1,500	<50***	a,c,l
	12/5/2000	19.60	--	14.15	41,000	11,000	840	930	1,900	<200	a
	3/6/2001	18.24	--	15.51	1,100	400	5.7	<0.5	20	<5.0	a
	6/8/2001	20.91	--	12.84	92	19	<0.5	<0.5	1	<5.0	a
	8/27/2001	21.63	--	12.12	49,000	17,000	1700	1,700	3,200	<260	a
	10/25/2001	21.70	--	12.05	57,000	16,000	1,500	1,600	2,600	<300	a
	3/1/2002	21.53	--	12.22	400	140	2.3	<0.5	12	<5.0*	a
	6/10/2002	22.23	--	11.52	<50	2.5	<0.5	<0.5	<0.5	<5.0*	--
	9/3/2002	21.85	--	11.90	31,000	9,700	300	650	1,100	<1,000	a
	12/22/2002	22.39	--	11.36	35,000	13,000	310	1,100	1,800	<1,500	a
	1/23/2003	20.61	--	13.14	51,000	18,000	430	1,500	2,200	<5.0***	a,l
	6/12/2003	21.20	--	12.55	80	12	<0.5	<0.5	1.0	<10	a
	7/23/2003	21.51	--	12.24	20,000	7,600	100	65	660	<250	a
	12/22/2003	19.60	--	14.15	26,000	9,500	200	380	1,100	<150	a
	3/10/2004	18.81	--	14.94	14,000	4,800	150	320	530	<400	a
	6/16/2004	19.32	--	14.43	2,800	1,100	24	17	100	<50	a
	9/27/2004	21.45	--	12.30	45,000	16,000	260	1,700	2,000	<25***	a

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					←			(µg/L)	→		
MW-4 cont.	12/22/2004	21.15	--	12.60	29,000	10,000	160	890	1,200	<5.0***	a,j
	3/3/2005	18.60	--	15.15	18,000	6,400	98	500	610	<600	a
	6/9/2005	18.11	--	15.64	20,000	6,100	110	460	580	<500	a
	9/9/2005	18.65	--	15.10	17,000	6,400	100	470	730	<250	a
	12/20/2005	19.01	--	14.74	26,000	8,500	160	640	800	<120	a
	3/26/2006	17.84	--	15.91	1,900	700	22	49	85	<50	a
	6/23/2006	17.96	--	15.79	12,000	3,400	130	370	510	260	a
	9/7/2006	18.29	--	15.46	8,600	1,800	100	170	220	<210	a,i
	12/29/2006	18.93	--	14.82	4,200	1,100	120	150	280	<150*/<0.5***	a
	3/21/2007	18.76	--	14.99	550	30	2.0	4.5	5.1	<30*	a
	6/7/2007	18.92	--	14.83	85	4.4	<0.5	0.77	0.82	<5.0*	a
	9/28/2007	19.41	--	14.34	140	7.0	<0.5	1.2	<0.5	<0.5***	a
	12/9/2007	19.86	--	13.89	120	4.5	<0.5	0.62	<0.5	<0.5	a
	3/3/2008	19.22	--	14.53	63	0.78	<0.5	<0.5	<0.5	<0.5***	i
	6/4/2008	19.58	--	14.17	86	2.2	<0.5	<0.5	0.58	<0.5***	a
	9/9/2008	20.01	--	13.74	460	9.4	0.95	3.1	19	<0.5***	a
	12/5/2008	20.29	--	13.46	290	4.3	1.4	3.0	14	<0.5***	a
	3/2/2009	19.86	--	13.89	520	6.0	2.2	6.5	9.2	<0.5***	a
	9/15/2009	**20.23**	**--**	**13.52**	**370**	**2.2**	**1.1**	**2.8**	**3.3**	**<0.5*** **	**a**
MW-5	10/28/1996	19.88	--	14.75	90	4.0	0.6	<0.50	<0.50	16*	
34.63	12/12/1996	20.09	--	14.54	230	5.6	0.9	ND	0.9	3.6*	n
	3/31/1997	19.24	--	15.39	90	3.1	ND	ND	ND	ND*	--
	6/27/1997	19.16	--	15.47	ND	ND	ND	ND	ND	ND*	--
	9/9/1997	19.93	--	14.70	ND	ND	ND	ND	ND	ND*	--
	12/18/1997	19.77	--	14.86	ND	ND	ND	ND	ND	ND***	--
	3/12/1998	19.77	--	14.86	79	2.3	ND	0.8	ND	ND*	--
	6/22/1998	18.08	--	16.55	ND	ND	ND	ND	ND	--	--
	9/18/1998	19.12	--	15.51	ND	ND	ND	ND	ND	--	--
	12/23/1998	19.60	--	15.03	ND	0.8	0.9	ND	ND	--	--
	3/29/1999	18.88	--	15.75	ND	ND	ND	ND	ND	--	--
	6/23/1999	18.05	--	16.58	ND	ND	ND	ND	ND	--	--
	9/24/1999	19.61	--	15.02	ND	ND	ND	ND	ND	--	--
	12/23/1999	20.01	--	14.62	ND	ND	ND	ND	ND	--	--
	3/21/2000	19.05	--	15.58	140	<0.5	<0.5	<0.5	<0.5	<5.0	--
	7/3/2000	19.40	--	15.23	85	8.1	3.1	1.6	7.8	<5.0*	k
	9/7/2000	19.62	--	15.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	a

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					←			(µg/L)	→		
MW-5 cont.	12/5/2000	20.25	--	14.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/2001	19.07	--	15.56	91	5.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/2001	20.77	--	13.86	290	22.0	0.8	<0.5	<0.5	<5.0	--
	8/27/2001	21.33	--	13.30	660	24.0	2.2	1.3	4.0	<25	a
	10/25/2001	21.62	--	13.01	55	3.5	<0.5	<0.5	<0.5	<5.0	a
	3/1/2002	21.49	--	13.14	200	1.9	0.69	<0.5	<0.5	<5.0*	a
	6/10/2002	22.15	--	12.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	a
	9/3/2002	21.50	--	13.13	60	1.9	<0.5	<0.5	0.77	<5.0	--
	12/22/2002	22.19	--	12.44	82	0.57	<0.5	0.68	<0.5	<5.0	a
	1/23/2003	20.27	--	14.36	<50	2.1	<0.5	<0.5	<0.5	<5.0	a
	6/12/2003	21.10	--	13.53	<50	0.88	<0.5	<0.5	<0.5	<5.0	--
	7/23/2003	21.47	--	13.16	<50	4.0	<0.5	<0.5	<0.5	<5.0	--
	12/22/2003	19.57	--	15.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/10/2004	19.61	--	15.02	990	200	2.9	4.0	20	<70	--
	6/16/2004	20.15	--	14.48	250	42	<0.5	0.88	<0.5	<35	a
	9/27/2004	22.14	--	12.49	1,600	140	4.8	45	18	<110	a
	12/22/2004	21.81	--	12.82	<50	5.3	<0.5	<0.5	0.66	<5.0	--
	3/3/2005	19.35	--	15.28	2,000	330	4.4	63	39	<150	a
	6/9/2005	18.73	--	15.90	250	42	1.4	14	3.2	<5.0	a
	9/9/2005	19.30	--	15.33	2,000	390	5.0	71	38	<400	a
	12/20/2005	19.65	--	14.98	4,300	760	18	170	150	<35	a
	3/26/2006	18.58	--	16.05	1,600	460	3.3	35	32	<50	a
	6/23/2006	18.57	--	16.06	1,900	500	3.9	81	56	<17	a
	9/7/2006	18.98	--	15.65	8,800	1,900	12	350	220	<260	a,i
	12/29/2006	19.70	--	14.93	15,000	3,400	69	610	700	<450*/<0.5***	a
	3/21/2007	19.57	--	15.06	9,900	2,300	24	360	410	<240*	a
	6/7/2007	19.70	--	14.93	14,000	3,800	40	790	720	<550*	a
	9/28/2007	20.16	--	14.47	26,000	7,200	84	1,100	1,600	<25***	a,l
	12/9/2007	20.56	--	14.07	25,000	7,000	59	1,100	2,000	<17	a,l
	3/3/2008	19.97	--	14.66	30,000	6,200	31	900	1,400	<10***	a,l
	6/4/2008	20.32	--	14.31	7,500	1,600	4.6	25	91	<10***	a,j
	9/9/2008	20.75	--	13.88	54,000	8,900	76	1,300	1,700	<25***	a,l
	12/5/2008	21.08	--	13.55	33,000	9,200	43	1,500	1,800	<5.0***	a,l
	3/2/2009	20.74	--	13.89	34,000	9,700	41	1,100	1,300	<5.0***	a,l
	9/15/2009	**21.02**	**--**	**13.61**	**40,000**	**10,000**	**280**	**1,400**	**2,600**	**<2.5*** **	**a,l**

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID / *Sample ID* / *TOC (ft amsl)*	*Date*	*Depth to Groundwater (ft below TOC)*	*SPH Thickness (feet)*	*TOC Groundwater Elevation (ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←			(µg/L)		→	
MW-6	10/28/1996	20.02		15.87	<50	<0.50	<0.50	<0.50	<0.50	<2.0*	
35.89	12/12/1996	20.18	--	15.71	ND	ND	ND	ND	ND	ND*	n
	3/31/1997	19.81	--	16.08	--	--	--	--	--	--	--
	6/27/1997	19.76	--	16.13	--	--	--	--	--	--	--
	9/9/1997	20.06	--	15.83	ND	ND	ND	ND	ND	ND*	--
	12/18/1997	19.90	--	15.99	ND	ND	ND	ND	ND	--	--
	3/12/1998	18.00	--	17.89	ND	ND	ND	ND	ND	ND*	--
	6/22/1998	18.43	--	17.46	ND	ND	ND	ND	ND	--	--
	9/18/1998	19.10	--	16.79	ND	ND	ND	ND	ND	--	--
	12/23/1998	19.61	--	16.28	ND	ND	ND	ND	ND	--	--
	3/29/1999	18.92	--	16.97	ND	ND	ND	ND	ND	--	--
	6/23/1999	18.41	--	17.48	ND	ND	ND	ND	ND	--	--
	9/24/1999	19.61	--	16.28	ND	ND	ND	ND	ND	--	--
	12/23/1999	20.30	--	15.59	ND	ND	ND	ND	ND	--	--
	3/21/2000	18.97	--	16.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	7/3/2000	19.46	--	16.43	59	5.1	2.3	1.1	5.3	<5.0*	--
	9/7/2000	19.95	--	15.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	a
	12/5/2000	20.50	--	15.39	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/2001	19.54	--	16.35	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/2001	20.92	--	14.97	<50	<0.5	<0.5	<0.5	<0.5	<5.1	--
	8/27/2001	21.37	--	14.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	10/25/2001	21.59	--	14.30	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/1/2002	21.33	--	14.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	6/10/2002	21.97	--	13.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	9/3/2002	21.55	--	14.34	--	--	--	--	--	--	--
	12/22/2002	22.25	--	13.64	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	1/23/2003	20.47	--	15.42	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/12/2003	21.09	--	14.80	--	--	--	--	--	--	--
	7/23/2003	21.42	--	14.47	--	--	--	--	--	--	--
	12/22/2003	19.49	--	16.40	--	--	--	--	--	--	--
	3/10/2004	20.20	--	15.69	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/16/2004	20.73	--	15.16	--	--	--	--	--	--	--
	9/27/2004	22.88	--	13.01	--	--	--	--	--	--	--
	12/22/2004	22.53	--	13.36	--	--	--	--	--	--	--
	3/3/2005	19.87	--	16.02	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/9/2005	18.95	--	16.94	--	--	--	--	--	--	--
	9/9/2005	19.45	--	16.44	--	--	--	--	--	--	--

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID *Sample ID* *TOC (ft amsl)*	*Date*	*Depth to Groundwater* *(ft below TOC)*	*SPH Thickness* *(feet)*	*TOC Groundwater Elevation* *(ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←			*(µg/L)*	→		
MW-6 cont.	12/20/2005	19.90	--	15.99	--	--	--	--	--	--	--
	3/26/2006	18.85	--	17.04	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/23/2006	18.57	--	17.32	--	--	--	--	--	--	--
	9/7/2006	19.13	--	16.76	--	--	--	--	--	--	--
	12/29/2006	19.96	--	15.93	--	--	--	--	--	--	--
	3/21/2007	19.87	--	16.02	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	m
	6/7/2007	20.05	--	15.84	--	--	--	--	--	--	--
	9/28/2007	20.51	--	15.38	--	--	--	--	--	--	--
	12/9/2007	20.90	--	14.99	--	--	--	--	--	--	--
	3/3/2008	20.47	--	15.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	
	6/4/2008	20.70	--	15.19	--	--	--	--	--	--	--
	9/9/2008	21.09	--	14.80	--	--	--	--	--	--	--
	12/5/2008	21.50	--	14.39	--	--	--	--	--	--	--
	3/2/2009	21.30	--	14.59	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	
	9/15/2009	**21.55**	**--**	**14.34**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Trip Blank	3/21/2000	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	9/7/2000	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
Grab Groundwater Sample Results:											
SB-A	7/6/1995	~20	--	--	330	16	3.6	1.3	4.9	--	i,j
SB-B	7/7/1995	~20	--	--	450	55	3.1	5.1	5.0	--	a
SB-C	7/6/1995	~20	--	--	44,000	6,600	5,900	980	4,400	--	a
SB-D	7/6/1995	~20	--	--	70,000	7,400	10,000	1,600	7,200	--	a
SB-E	7/6/1995	~20	--	--	25,000	1,000	3,000	610	2,700	--	a
SB-G	7/7/1995	~20	--	--	84,000	9,400	16,000	2,200	9,900	--	a,b
SB-I	7/7/1995	~20	--	--	24,000	6,100	1,400	680	1,600	--	a
SB-J	7/7/1995	~20	--	--	960	110	66	8.7	71	--	a
SB-K	7/7/1995	~20	--	--	72,000	9,600	9,600	1,800	7,000	--	a
CB-1-W	7/22/1999	--	--	--	110,000	1,300	16,000	2,700	12,000	<3000*	a,b,c
CB-2-W	7/22/1999	--	--	--	4,700	21	13	170	76	<50*	a,c
GW-1	7/30/1994	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--
GW-2 ^	7/29/1994	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--
GW-3 ^	7/29/1994	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID / *Sample ID* / *TOC (ft amsl)*	*Date*	*Depth to Groundwater (ft below TOC)*	*SPH Thickness (feet)*	*TOC Groundwater Elevation (ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←			*(µg/L)*	→		

Abbreviations, Methods, & Notes

TOC = Top of casing elevation

ft amsl = feet above mean sea level

SPH = Separate-phase hydrocarbons

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method SW8015C

Benzene, toluene, ethylbenzene, and xylenes by EPA Method SW8021B

MTBE = Methyl tert-butyl ether * = MTBE by EPA Method SW8021B

** = MTBE by EPA Method SW8240

*** = MTBE by EPA Method SW8260

1 = Not confirmed with EPA Method 8260B.

µg/L = micrograms per liter, equivalent to parts per billion

-- = Not sampled, not analyzed, not applicable, or no SPH was measured or observed

<n = Not detected in sample above n mg/L

ND = Not detected above laboratory detection limit

x = Groundwater elevation adjusted for SPH by the relation:
Groundwater Elevation = TOC Elevation - Depth to Groundwater + (0.7 x SPH thickness)

= The wellhead elevation was raised by 0.41 feet when well MW-1 was connected to the SVE system on October 31, 2003.

= The wellhead elevation was lowered by 0.41 feet when well MW-1 was disconnected from the SVE system on April 30. 2005.

+ = Well de-watered during purging, no measurable water to sample.

Sheen = A sheen was observed on the water's surface

Field = Observed in the field

Lab = Observed in analytical laboratory

^ = Samples associated with 1439 Alice St. Property

a = Unmodified or weakly modified gasoline is significant.

b = Lighter than water immiscible sheen is present.

c = Liquid sample that contains greater than ~2 vol. % sediment.

d = MTBE result confirmed by secondary column or GC/MS analysis.

e = Sample analyzed for purgeable hydrocarbons by EPA Method SW8010, no purgeable hydrocarbons were detected.

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID / *Sample ID* / *TOC (ft amsl)*	*Date*	*Depth to Groundwater (ft below TOC)*	*SPH Thickness (feet)*	*TOC Groundwater Elevation (ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←			(µg/L)		→	

f = Sample analyzed for VOCs by EPA Method SW8240, no non-BTEX compounds were detected.

g = Sample analyzed for Total Petroleum Hydrocarbons as motor oil (TPHmo) by Modified EPA Method SW8015, no TPHmo was detected.

h = Analytic sampling discontinued. Approved by Alameda County Department of Environmental Health.

i = Lighter gasoline range compounds are significant.

j = Gasoline range compounds having broad chromatographic peaks are significant.

k = No recognizable pattern.

l = Sample diluted due to high organic content.

m = Liquid sample that contains greater than ~1 vol. % sediment.

n = TOC well elevation was increased by 3 ft based on a benchmark discrepancy discovered during a well survey performed on September 11, 2002.

TABLE 3

PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring / Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
			←			*(mg/kg)*		→	
1 / 1@20.0'	20	07/25/90	6,300	99	490	110	610	--	
2 / 2@18.5'	18.5	07/25/90	9,300	98	900	190	1,100	--	
B5 / B5@22.5'	22.5	09/17/90	110	0.024	0.21	0.069	1.3	--	
B6 / B6@9'	9	09/17/90	--	<0.005	<0.005	<0.005	<0.005	--	
B6 / B6@9.5'	9.5	09/17/90	--	--	--	--	--	--	*
B7 / B7@13'	13	09/21/90	<1	<0.005	<0.005	<0.005	<0.005	--	*
B7 / B7@20'	20	09/21/90	2,500	3.5	34	33	130	--	
B8 / B8@22.5'	22.5	09/21/90	1,200	2.3	38	18	89	--	
B1 / B1-2'	2	01/16/92	27.3	<0.005	3.0	0.23	<0.005	--	*
B2 / B2-2'	2	01/16/92	<1	<0.005	0.10	<0.005	<0.005	--	*
B3 / B3-2'	2	01/16/92	1.6	<0.005	1.1	<0.005	<0.005	--	*
B4 / B4-2'	2	01/16/92	1.9	<0.005	0.8	<0.005	<0.005	--	*
B5 / B5-2'	2	01/16/92	<1	<0.005	0.4	<0.005	<0.005	--	*
B6 / B6-2'	2	01/16/92	<1	<0.005	0.4	<0.005	<0.005	--	*
B7 / B7-2'	2	01/16/92	2.6	<0.005	1.6	<0.005	<0.005	--	*
B8 / B8-2'	2	01/16/92	<1	<0.005	0.04	<0.005	<0.005	--	*

TABLE 3

PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring / Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
			←			*(mg/kg)*		→	
B9 / B9-5'	2	01/22/92	2.44	<0.005	<0.005	--	--	--	*
B10 / B10-8'	2	01/22/92	<1	--	<0.005	--	--	--	*
B13 / B13-5'	5	01/21/92	83.2	<0.005	0.068	1.23	<0.005	--	
B13 / B13-15'	15	01/21/92	135	--	0.71	--	8.85	--	
B14 / B14-5'	5	01/21/92	<1	<0.005	--	--	--	--	
B14 / B14-15'	15	01/21/92	2.5	--	--	<0.005	--	--	
B17 / B17-5'	5	2/3/1992	--	--	--	--	--	--	
B19 / B19-5'	5	02/03/92	2.5	<0.005	<0.005	<0.005	0.01	--	
B20 / B20-5'	5	02/03/92	2.1	<0.005	0.03	<0.005	0.01	--	
B20 / B20-15'	15	02/03/92	2.5	<0.005	0.034	<0.005	<0.005	--	
B21 / B21-5'	5	02/05/92	2.1	<0.005	0.02	<0.005	0.01	--	
B21 / B21-10'	10	02/05/92	1.9	<0.005	0.021	<0.005	0.026	--	
B21 / B21-15'	15	02/05/92	2	<0.005	0.03	<0.005	<0.005	--	
B22 / B22-5'	5	02/05/92	42.3	<0.005	0.113	<0.005	2.13	--	
B22 / B22-10'	10	02/05/92	1,540	0.987	11.7	1.67	2.88	--	
B23 / B23-5'	5	02/05/92	2.5	<0.005	0.027	<0.005	<0.005	--	
B23 / B23-10'	10	02/05/92	3.3	<0.005	0.034	<0.005	<0.005	--	
LFSB1 / LFSB1-4.0	4	05/22/93	0.5	<0.005	0.01	<0.005	<0.005	--	

TABLE 3

PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring / Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
			←			*(mg/kg)*		→	
LFSB1 / LFSB1-14.0	14	05/22/93	<0.2	0.020	<0.005	<0.005	<0.005	--	
LFSB1 / LFSB1-24.5	24.5	05/22/93	8,800	210	980	160	750	--	
LFSB2 / LFSB2-9.5	9.5	05/22/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
LFSB2 / LFSB2-19.5	19.5	05/22/93	1,000	<0.2	9.4	16	68	--	
LFSB2 / LFSB2-24.5	24.5	05/22/93	6,100	91	320	120	410	--	
Sump 5.5H (3)	5.5	11/29/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
Hoist 1-8H	8	11/29/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
Hoist 2-9.5WH (2)	9.5	11/29/93	0.3	<0.005	<0.005	<0.005	<0.005	--	
Hoist 2-11.5H	11.5	11/29/93	970	2.9	14	4.2	24	--	
Hoist 2-9EH	9	11/29/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
E. Vault-6.5H	6.5	11/29/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
N. Vault-7H (4)	7	11/29/93	4.1	<0.005	<0.005	<0.005	23	--	
Vault-Base-9.5H (5)	9.5	11/29/93	380	0.05	0.69	0.22	2	--	
S. Tank-8FG	8	12/06/93	1,500	0.87	43	34	240	--	
S. Tank-8G	8	12/06/93	43	0.006	0.088	0.25	1.8	--	
N. Tank-7.5G	7.5	12/06/93	3,100	11	190	64	400	--	
N. Tank-8.5FG	8.5	12/06/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
PJ-2G	2	12/07/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
DSP-2G	2	12/07/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
E. Wall-3G	3	12/15/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
S.Wall-3G	3	12/15/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	

TABLE 3

PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring / Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
			←			*(mg/kg)*		→	
N.Wall-3G	3	12/16/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
W.Wall-3-N	3	12/29/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
W.Wall-3-S	3	12/29/93	0.5	<0.005	<0.005	<0.005	<0.005	--	
MW-2 / MW-2-5'	5	07/30/94	<0.2	<0.005	<0.005	<0.005	<0.005	--	
MW-2 / MW-2-9.5'	9.5	07/30/94	<0.2	<0.005	<0.005	<0.005	<0.005	--	
MW-2 / MW-2-15'	15	07/30/94	<0.2	0.024	0.007	<0.005	<0.005	--	
GW-1 / GW-1-10'	10	07/30/94	<0.2	<0.005	<0.005	<0.005	<0.005	--	
GW-1 / GW-1-15'	15	07/30/94	<0.2	<0.005	<0.005	<0.005	<0.005	--	
SB-F / SB-F 20'	20.0	07/07/95	160	1.9	10	2.5	11	--	a
SB-H / SB-H 20'	20.0	07/07/95	350	4.0	16	5.3	25	--	a
SB-L / SB-L 20'	20.0	07/07/95	220	1.6	4.1	4.8	24	--	b,d
(MW-4) / SB-M 20.0'	20.0	10/02/96	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
(MW-5) / SB-N 20.0'	20.0	10/02/96	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
(MW-6) / SB-O 20.5'	20.5	10/03/96	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
SB-P / SB-P 3.75'	3.75	10/03/96	3.8	<0.005	0.016	0.017	0.084	<0.05	
SB-P / SB-P 12.7'	12.7	10/03/96	1,500	0.55	14	25	100	2.0	b,d
SB-Q / SB-Q 3.75'	3.75	10/03/96	4.3	0.006	0.024	0.027	0.11	<0.02	g
SB-Q / SB-Q 9.6'	9.6	10/03/96	1,900	0.95	15	43	200	<1.4	b,d

TABLE 3

PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring / Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
			←			*(mg/kg)*		→	
VES-1 / VES-1-16.5'	16.5	07/22/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
VES-1 / VES-1-21.5'	21.5	07/22/99	5,600	59	400	75	370	<10	a
VES-1 / VES-1-30.5'	30.5	07/22/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
VES-2 / VES-2-16.5'	16.5	07/22/99	2.2	<0.005	0.018	<0.005	0.050	<0.05	g
VES-2 / VES-2-26.5'	26.5	07/22/99	4,300	35	260	74	310	<10	a
VES-2 / VES-2-30.0'	30.0	07/22/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
VES-3 / VES-3-15.5'	15.5	07/23/99	1.3	0.011	<0.005	<0.005	0.010	<0.05	a
VES-3 / VES-3-20.5'	20.5	07/23/99	2,100	<0.50	66	56	280	<10	b,j
VES-3 / VES-3-30.5'	30.5	07/23/99	1.4	0.062	0.25	0.039	0.16	<0.05	a
VES-4 / VES-4-16.5'	16.5	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
VES-4 / VES-4-25.0'	25.0	07/23/99	7,600	150	490	170	640	32*	a
VES-4 / VES-4-30.0'	30.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-1 / CB-1-10.0'	10.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-1 / CB-1-16.0'	16.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-1 / CB-1-20.0'	20.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-1 / CB-1-24.0'	24.0	07/23/99	1,500	2.3	6.8	12	58	<2	a
CB-2 / CB-2-12.0'	12.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-2 / CB-2-15.0'	15.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-2 / CB-2-20.5'	20.5	07/23/99	4.2	<0.005	0.010	0.007	0.025	<0.05	j
CB-2 / CB-2-24.0'	24.0	07/23/99	4.8	0.006	<0.005	0.026	0.030	<0.05	j

TABLE 3

PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring / Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
			←			*(mg/kg)*		→	
B-24-5	5	8/31/2009	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
B-24-10	10	8/31/2009	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
B-24-15	15	8/31/2009	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
B-24-20	20	8/31/2009	1.5	<0.005	<0.005	<0.005	<0.005	<0.05	g
B-24-25	25	8/31/2009	4,300	<0.50	4.2	9.5	190	<5.0	g,j
B-24-29.5	29.5	8/31/2009	22	0.15	0.074	0.028	0.65	<0.25	g,j
B-24-35	35	8/31/2009	1,400	1.6	3.3	2.8	49	<5.0	g,j
B-24-49.5	49.5	8/31/2009	890	1.2	2.3	1.1	26	<10	g

Notes:

TPHg = Total purgeable petroleum hydrocarbons as gasoline by EPA method Modified 8015.

Benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA method 8020.

MTBE = Methyl tert-butyl ether by modified EPA method 8020.

<n = not detected above n parts per million

a = unmodified or weakly modified gasoline is significant

b = heavier gasoline range compounds significant

d = gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline

g = strongly aged gasoline or diesel range compounds are significant

j = no recognizable pattern

* = MTBE result not confirmed by EPA Method 8260 analysis.

1990 through 1994 data tabulated from Table 1 in Levine Fricke's September 1, 1994, *Soil and Groundwater Investigation Report* , Harrison Street Garage,
1432-1434 Harrison Street, Oakland, California.

*= Samples taken from 1439 Alice St. Property

TABLE 4

ADDITIONAL SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET
OAKLAND, CALIFORNIA

Boring / Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHd*	*Kerosene*	*Oil & Grease*	*PCBs*	*CL-HCs*	*VOCs*	*As*	*Pb*	*Hg*	*Ni*	*Se*	*PCB*	*Soluble Pb* [1]	*Notes*
			←				*(mg/kg)*							→	*(mg/L)*	
2 / 2@18.5'	18.5	7/25/1990	--	--	--	--	--	--	--	--	--	--	--	--	0.21	
									--					--		
B4 / B4@10'	10	9/17/1990	1,700	<100	6,300	--	--	--	--	--	--	--	--	--	--	
B6 / B6@9'	9	09/17/90	<10	98	ND	9	--	--	--	0.009	--	--	--	--	0.06	*
B6 / B6@9.5'	9.5	09/17/90	<10	140	ND	--	--	--	--	--	--	--	--	--	--	*
B7 / B7@20'	20	9/21/1990	--	--	--	--	--	--	--	--	--	--	--	--	0.07	
B1 / B1-2'	2	1/16/1992	55.7	--	54.2	ND	ND	ND	35.3	ND	50.7	21.9	15.3	ND	--	*
B2 / B2-2'	2	1/16/1992	1.5	--	ND	ND	ND	ND	39.5	ND	49.7	16.9	ND	ND	--	*
B3 / B3-2'	2	1/16/1992	1.6	--	ND	ND	ND	ND	40.2	ND	54.2	33.6	17.0	ND	--	*
B4 / B4-2'	2	1/16/1992	24.1	--	54.8	ND	ND	ND	42.9	ND	66.5	45.6	19.2	ND	--	*
B5 / B5-2'	2	1/16/1992	2.5	--	50.9	ND	ND	ND	47.3	ND	73.0	47.2	19.2	ND	--	*
B6 / B6-2'	2	1/16/1992	24.3	--	ND	ND	ND	ND	42.2	ND	66.7	41.4	16.9	ND	--	*
B7 / B7-2'	2	1/16/1992	6.3	--	221.0	ND	ND	ND	45.3	ND	74.2	36.3	18.9	ND	--	*
B8 / B8-2'	2	1/16/1992	2.9	--	55.1	ND	ND	ND	39.2	ND	52.9	30.8	15.3	ND	--	*
B9 / B9-5'	5	1/22/1992	11.10	--	ND	ND	ND	ND	--	7.53	21.5	59.8	11.6	ND	--	*
B10 / B10-8'	8	1/22/1992	109.0	--	ND	ND	ND	ND	--	5.63	15.5	34.9	ND	ND	--	*
B13 / B13-5'	5	1/21/1992	1.63	--	--	0.245	--	ND	47.3	17.4	45.4	46.1	21.9	245	--	
B13 / B13-15'	15	1/21/1992	<1	--	--	ND	--	ND	27.4	13.8	35.5	128.4	15.5	ND	--	
B14 / B14-5'	5	1/21/1992	<1	--	--	ND	--	ND	27.5	11.2	28.1	39.4	12.3	ND	--	
B14 / B14-15'	15	1/21/1992	17.3	--	--	ND	--	ND	32.7	13.2	32.8	376.2	15.3	ND	--	
B15 / B15-5'	5	1/30/1992	--	--	--	--	--	ND	25.4	26.6	29.4	56.6	9.02	ND	--	

TABLE 4

ADDITIONAL SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET
OAKLAND, CALIFORNIA

Boring / Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHd*	*Kerosene*	*Oil & Grease*	*PCBs*	*CL-HCs*	*VOCs*	*As*	*Pb*	*Hg*	*Ni*	*Se*	*PCB*	*Soluble Pb*[1]	*Notes*
			←				(mg/kg)							→	(mg/L)	
B15 / B15-15'	15	1/30/1992	--	--	--	--	--	ND	36.0	16.7	33.2	72.3	15.5	ND	--	
B16 / B16-5'	5	1/30/1992	--	--	--	--	--	ND	41.8	14.3	44.9	60.3	15.2	ND	--	
B16 / B16-15'	15	1/30/1992	--	--	--	--	--	ND	26.0	10.2	34.7	48.4	8.81	ND	--	
B17 / B17-5'	5	2/3/1992	--	--	39.1	ND	--	ND		10.4	3.56	329.2	6.24[a]	ND	--	
B19 / B19-5'	5	2/3/1992	28	--	--	--	--	--	--	--	--	--	--	--	--	
B20 / B20-5'	5	2/3/1992	24	--	--	--	--	--	--	--	--	--	--	--	--	
B20 / B20-15'	15	2/3/1992	<1	--	35.2	ND	--	--		10.4	2.48	224.8	<7.5	ND	--	
B21 / B21-5'	5	2/5/1992	16.7	--	--	--	--	--	--	--	--	--	--	--	--	
B21 / B21-10'	10	2/5/1992	15.7	--	--	--	--	--	--	--	--	--	--	--	--	
B21 / B21-15'	15	2/5/1992	22.7	--	--	--	--	--	--	--	--	--	--	--	--	
B22 / B22-5'	5	2/5/1992	670	--	--	--	--	--	--	--	--	--	--	--	--	
B22 / B22-10'	10	2/5/1992	175	--	--	--	--	--	--	--	--	--	--	--	--	
B23 / B23-5'	5	2/5/1992	26	--	--	--	--	--	--	--	--	--	--	--	--	
B23 / B23-10'	10	2/5/1992	<1	--	--	--	--	--	--	--	--	--	--	--	--	
Sump 5.5H (3)	5.5	11/29/1993	--	--	<10	ND	--	--	--	2	<0.06	50	<2	--	--	
Hoist 1-8H	8	11/29/1993	--	--	<10	--	--	--	--	--	--	--	--	--	--	
Hoist 2-9.5WH (	9.5	11/29/1993	--	--	17,000	--	--	--	--	--	--	--	--	--	--	
Hoist 2-11.5H	11.5	11/29/1993	--	--	5,100	--	--	--	--	--	--	--	--	--	--	
Hoist 2-9EH	9	11/29/1993	--	--	<10	--	--	--	--	--	--	--	--	--	--	
E. Vault-6.5H	6.5	11/29/1993	--	--	<10	--	--	--	--	--	--	--	--	--	--	
N. Vault-7H (4)	7	11/29/1993	--	--	1,700	--	--	--	--	--	--	--	--	--	--	
Vault-Base-9.5H	9.5	11/29/1993	--	--	14,000	--	--	--	--	--	--	--	--	--	--	

TABLE 4

ADDITIONAL SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET
OAKLAND, CALIFORNIA

Boring / Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHd*	*Kerosene*	*Oil & Grease*	*PCBs*	*CL-HCs*	*VOCs*	*As*	*Pb*	*Hg*	*Ni*	*Se*	*PCB*	*Soluble Pb*[1] *(mg/L)*	*Notes*
			←				*(mg/kg)*							→		
S. Tank-8FG	8	12/6/1993	--	--	--	--	--	--	--	<0.5	--	--	--	--	<0.5[b]	
S. Tank-8G	8	12/6/1993	--	--	--	--	--	--	--	<0.5	--	--	--	--	<0.5[b]	
N. Tank-7.5G	7.5	12/6/1993	--	--	--	--	--	--	--	1.9	--	--	--	--	1.9[b]	
N. Tank-8.5FG	8.5	12/6/1993	--	--	--	--	--	--	--	<0.5	--	--	--	--	<0.5[b]	

Notes:

1 = Unknown extraction method

a = Report concentration is lower than the detection limit

b = Concentrations reported are Organic Lead by DHS Method

ND - Not detected above laboratory reporting limits

-- = Not analyzed

PCB's - Polychlorinated biphenyls

VOCs = Volatile organic carbons

CL-HCs = Chlorinated hydrocarbons

Pb - Lead

Hg = Mercury

Ni = Nickel

Se = Selenium

All Data tabulated from Table 1 in Levine Fricke's September 1, 1994, *Soil and Groundwater Investigation Report* , Harrison Street Garage, 1432-1434 Harrison Street, Oakland, Calif

*= Samples associated with 1439 Alice St. Property

TABLE 5

SOIL VAPOR ANALYTICAL DATA
BORSUK
1432 HARRISON ST,
OAKLAND, CALIFORNIA

Sample ID	*Date Sampled*	*Depth (ft)*	*TPHg (ug/m^3)*	*Benzene (ug/m^3)*	*Toluene (ug/m^3)*	*Ethylbenzene (ug/m^3)*	*m,p-Xylene (ug/m^3)*	*o-Xylene (ug/m^3)*	*Butane (ppbv)*	*Isobutane (ppbv)*	*Propane (ppbv)*	*Oxygen (%)*	*Methane (%)*	*Carbon Dioxide (%)*	*Mercury (ug/sample)*	*Other VOCs (ug/m^3)*
SV-3	9/8/2009	5	440	<4.0	6.0	<5.5	5.8	<5.5	7.4	4.2	ND	16	ND	2.5	--	
SV-4	9/8/2009	5	530	4.2	9.5	<5.2	12	<5.2	ND	27	ND	17	ND	0.57	--	
SV-5	9/8/2009	5	1,200	<4.0	18	<5.5	8.7	<5.5	ND	7.7	ND	17	ND	2.6	--	
SV-6	9/8/2009	5	*1,900*	<3.8	8.0	<5.2	15	6.6	ND	ND	ND	17	ND	3.4	<0.010	
SV-7	9/8/2009	5	780	6.2	39	<5.0	25	12	ND	57	ND	19	ND	0.4	<0.010	
SV-8	9/8/2009	5	460	4.9	20	<5.0	7.1	<5.0	5.1	9.9	ND	16	ND	0.38	<0.010	Acetone (19), Carbon Disulfide (95), Tetrachloroethane (32)
Duplicates																
SV-5-Duplicate	9/8/2009	5	990	<3.9	16	<5.4	6.4	<5.4	ND	7.7	ND	17	ND	2.6	--	
SV-6-Duplicate	9/8/2009	5	--	--	--	--	--	--	--	--	--	--	--	--	<0.010	

Abbreviations and Analyses:

ND<n = Not dectected (ND) above laboratory detection limit, n.

ug/m^3 = Microgram per cubic meter.

% = Percent

ppbv = Parts ber billion by volume

ft = Measured in feet

TPHg by EPA Method TO-3

Benzene, Toluene, Ethylbenzene, m,p-Xylenes, & o-Xylenes by modified EPA Method TO-15.

BTEX, Butane, Isobutane, Propane by EPA Method Modified TO-15/TICs

Oxygen, Methane, Carbon Dioxide by ASTM D-1946

Mercury by NIOSH 6009

APPENDIX A

AGENCY CORRESPONDENCE

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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

August 1, 2008

Sydney & Barbara Borsuk Trust, Shiela Siegel Trust
C/o Mr. Mark Borsuk
1626 Vallejo Street
San Francisco, CA 94123-5116

Mr. Leland Douglas
Douglas Parking Company
1721 Webster Street
Oakland, CA 94612

Subject: Fuel Leak Case No. RO0000266 and Geotracker Global ID T0600100682, A Bacharach Trust & B Borsuk, 1432 Harrison Street, Oakland, CA 94612

Dear Mr. Borsuk and Mr. Douglas:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the documents entitled, "*Additional Characterization Work Plan, Allright Parking, 1432 Harrison Street, Oakland, California*," dated July 1, 2008. The Work Plan proposes soil vapor sampling, soil borings, monitoring well installation, and a sensitive receptor survey.

The scope of work is conditionally approved and may be implemented provided that the technical comments below are addressed and incorporated during the proposed activities. Submittal of a revised Work Plan or Work Plan Addendum is not required unless an alternate scope of work outside that described in the Work Plan and technical comment below is proposed. We request that you address the following technical comments, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

1. **Soil Vapor Sampling Locations.** The proposed locations for soil vapor sampling are generally acceptable; however, we request that soil vapor samples be collected at two additional locations. We request that one soil vapor sampling location for TPHg and BTEX analyses be added in the area immediately north of previous sampling location SB-K to evaluate elevated concentrations of benzene detected in groundwater in the area of SB-K. We request that one additional soil vapor sampling location for TPHg, BTEX, and Hg analyses be added in the area of previous soil sampling locations B-3 and B-4 in the southeastern corner of 1439 Alice Street to evaluate elevated concentrations of mercury detected in the soil. Please include these soil vapor sampling results in the Site Investigation Report requested below.

2. **Direct Push Soil Boring in Alice Street Property.** The proposed location, depth, and laboratory analyses for the proposed boring in the Alice Street Property are acceptable. We request that soils be continuously sampled for logging and screening purposes in the direct push boring. Please present sampling results including a boring log in the Site Investigation Report requested below.

3. **Soil Boring for Vertical Extent near Former Gasoline Tanks.** The proposed location, depth, and laboratory analyses for the proposed boring in the area of the former gasoline tanks are acceptable. We request that soils be continuously sampled for logging and screening purposes in the boring. Please present sampling results including a boring log in the Site Investigation Report requested below.

4. **Monitoring Well Installation.** The proposed location for the off-site monitoring well is acceptable. Please incorporate the well into the quarterly groundwater monitoring program.

5. **Grab Groundwater Sample Analyses.** In addition to the proposed analyses, the grab groundwater sample to be collected from the proposed direct push boring at 1439 Alice Street must be analyzed for full scan VOCs using EPA Method 8260. Analysis of the grab groundwater sample for Total Oil and Grease does not appear warranted and may be deleted. Please present sampling results including a boring log in the Site Investigation Report requested below.

TECHNICAL REPORT REQUEST

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

- **Site Investigation Report** – December 1, 2008
- **November 17, 2008** – Third Quarter 2008 Groundwater Monitoring Report
- **February 16, 2009** – Fourth Quarter 2008 Groundwater Monitoring Report
- **May 19, 2009** – First Quarter 2009 Groundwater Monitoring Report

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

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) now request submission of reports in electronic form. The electronic copy is intended to replace the need for a paper copy 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 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, electronic submittal of a complete copy of all reports is required in Geotracker (in PDF format). Please visit the State Water Resources Control Board for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

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

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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

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.

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,

Jerry Wickham

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

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin
Oakland Fire Department
250 Frank H. Ogawa Plaza, Ste. 3341
Oakland, CA 94612-2032

Mark Jonas
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

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

Effective **January 31, 2006**, 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

- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection.** (Please do not submit reports as attachments to electronic mail.)
- 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)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

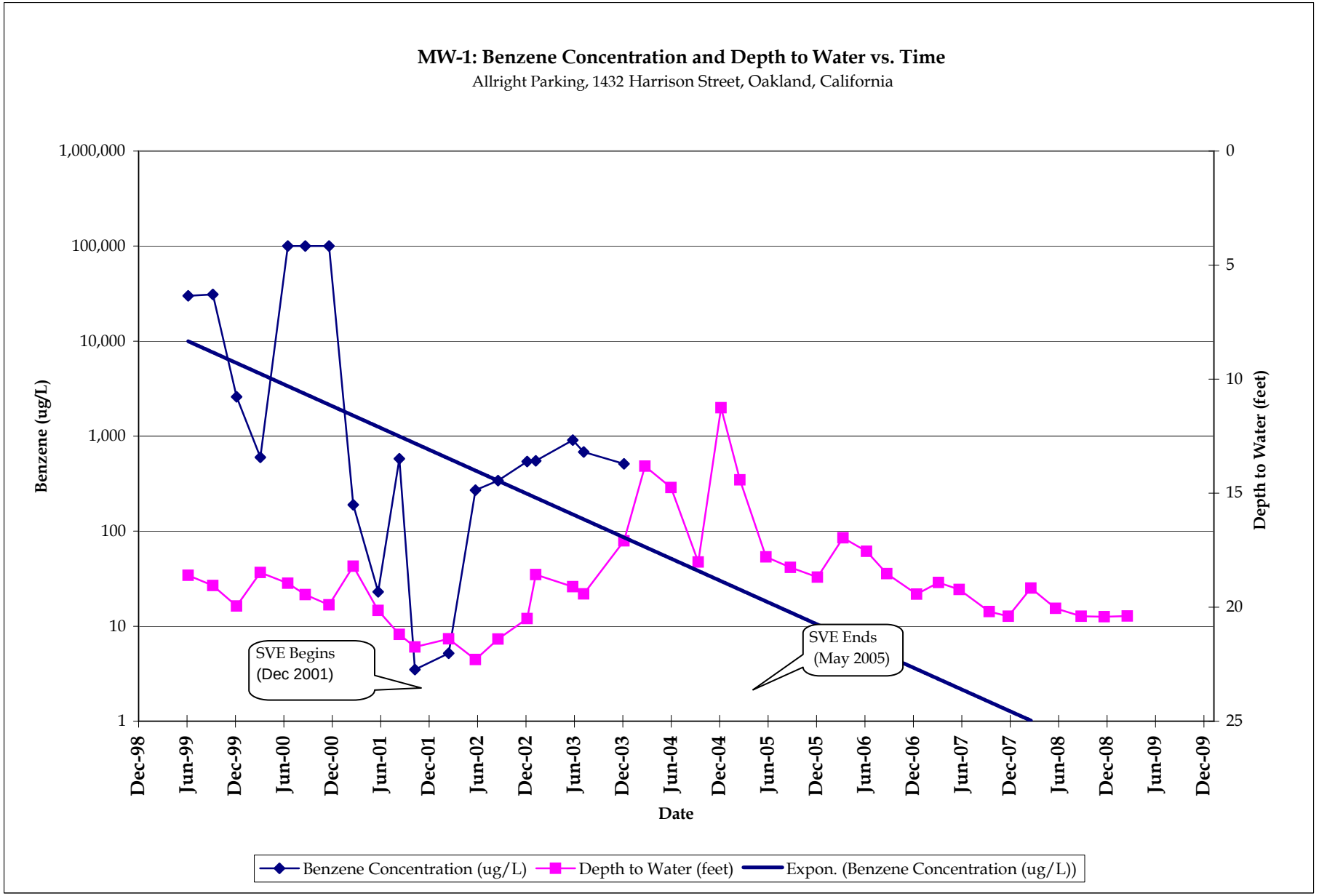
1) Obtain User Name and Password:
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to dehloptoxic@acgov.org
         or
      ii) Send a fax on company letterhead to (510) 337-9335, to the attention of Alicia Lam-Finneke.
   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 and Firefox browsers will not open the FTP site.
   b) Click on File, then on Login As.
   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 at 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)

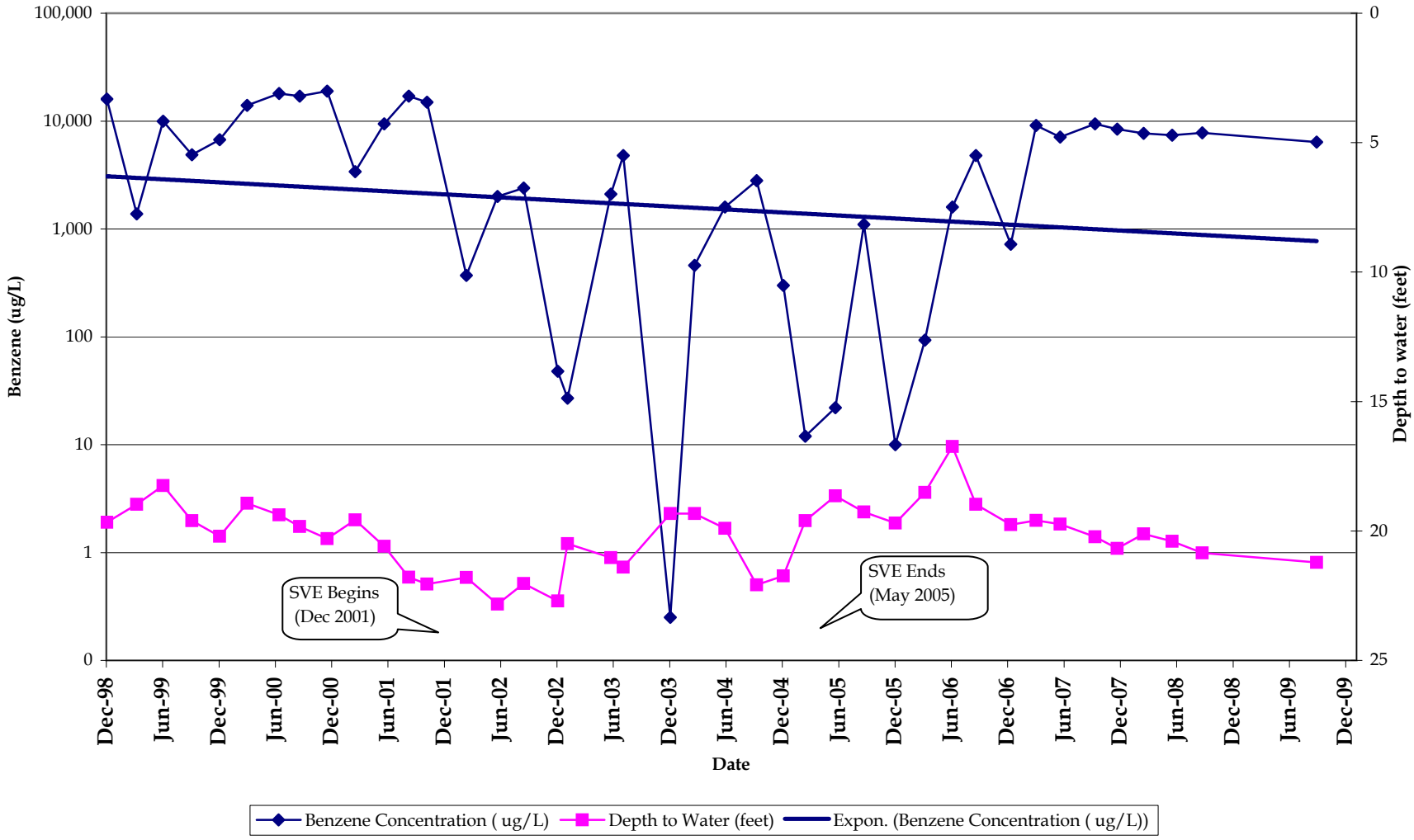
APPENDIX B

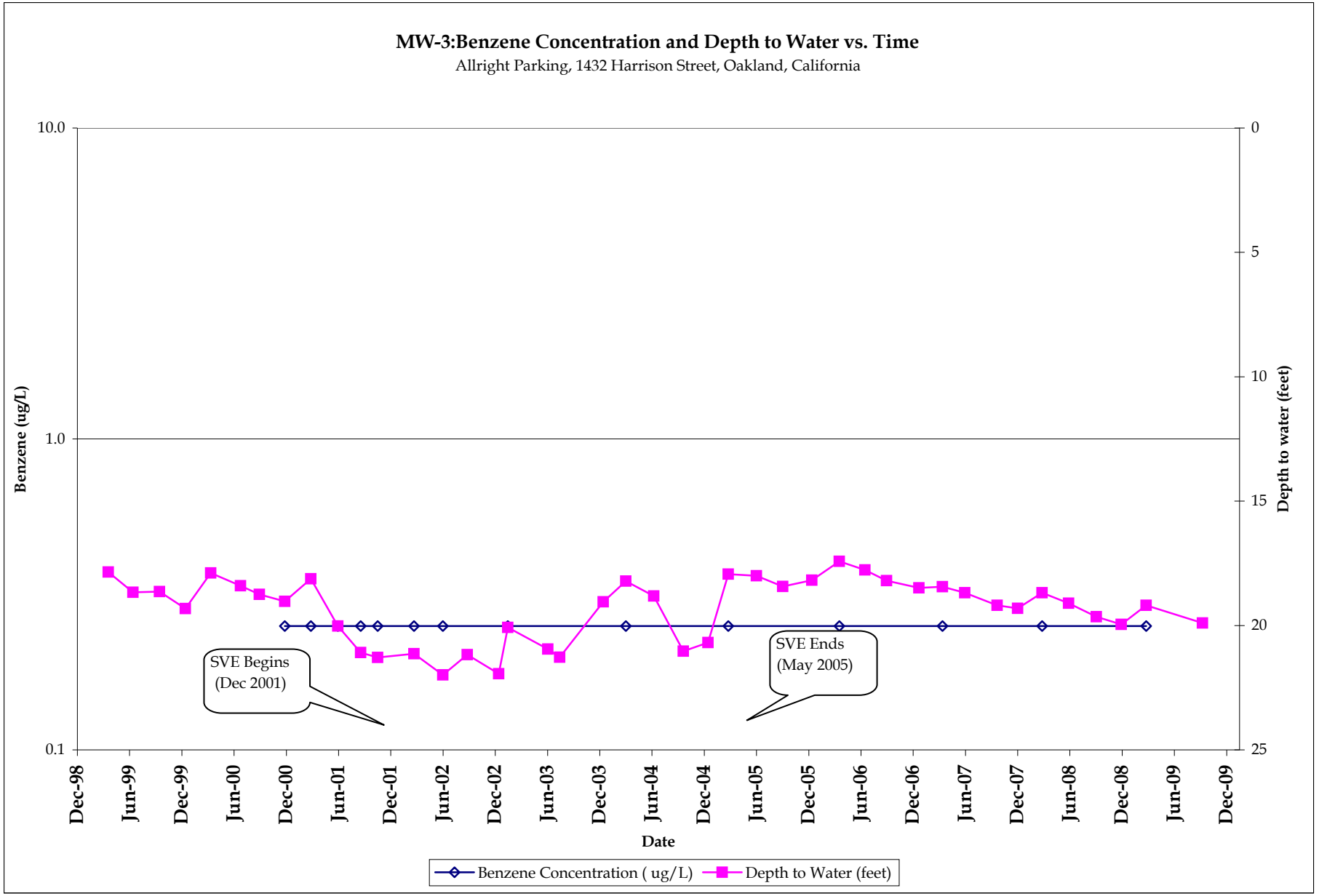
BENZENE CONCENTRATION TREND FIGURES

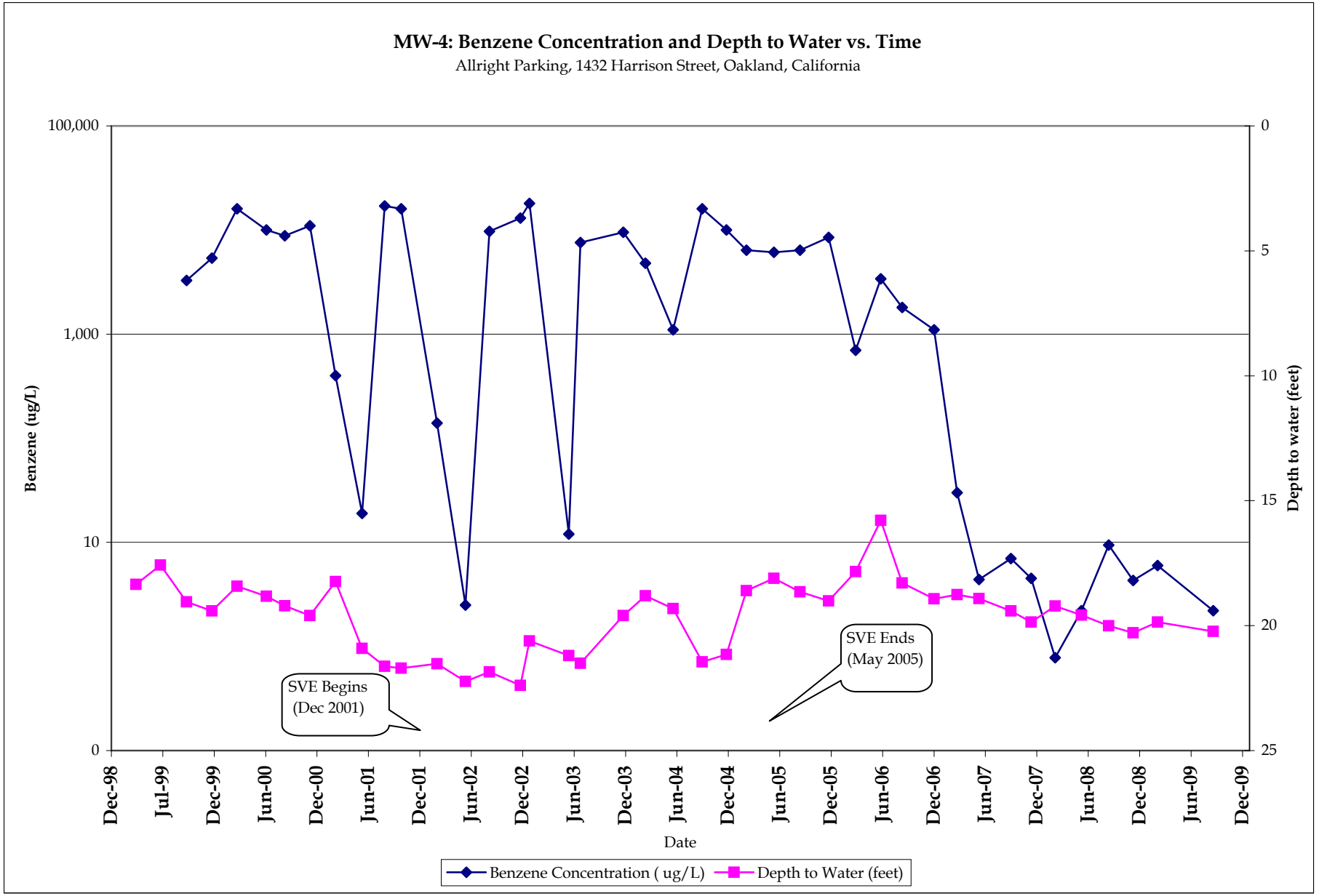

MW-1: Benzene Concentration and Depth to Water vs. Time
Allright Parking, 1432 Harrison Street, Oakland, California
Benzene (ug/L)
1,000,000
100,000
10,000
1,000
100
10
1
Depth to Water (feet)
0
5
10
15
20
25
Dec-98
Jun-99
Dec-99
Jun-00
Dec-00
Jun-01
Dec-01
Jun-02
Dec-02
Jun-03
Dec-03
Jun-04
Dec-04
Jun-05
Dec-05
Jun-06
Dec-06
Jun-07
Dec-07
Jun-08
Dec-08
Jun-09
Dec-09
Date
SVE Begins
(Dec 2001)
SVE Ends
(May 2005)
Benzene Concentration (ug/L)
Depth to Water (feet)
Expon. (Benzene Concentration (ug/L))

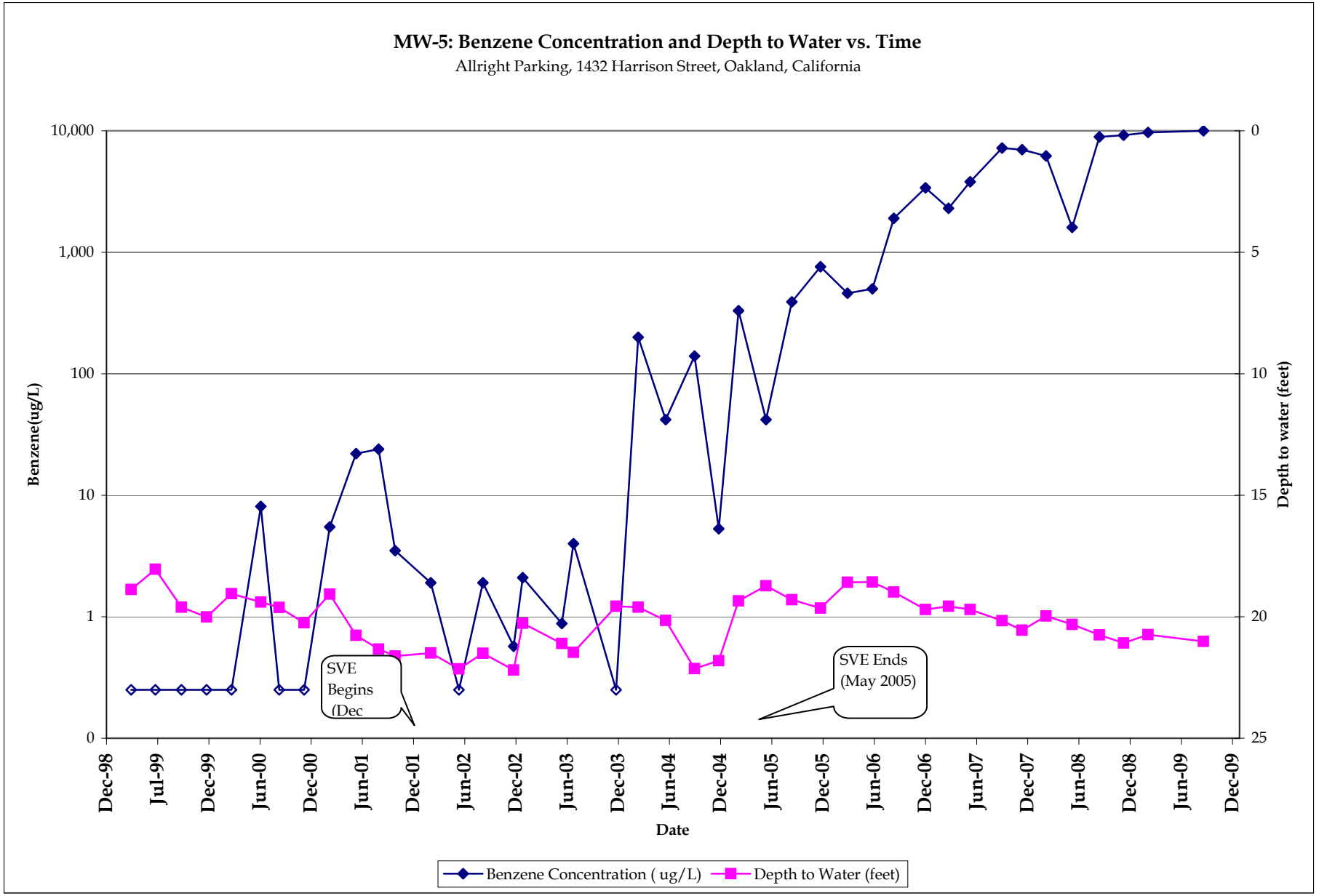
MW-2: Benzene Concentration and Depth to Water vs. Time

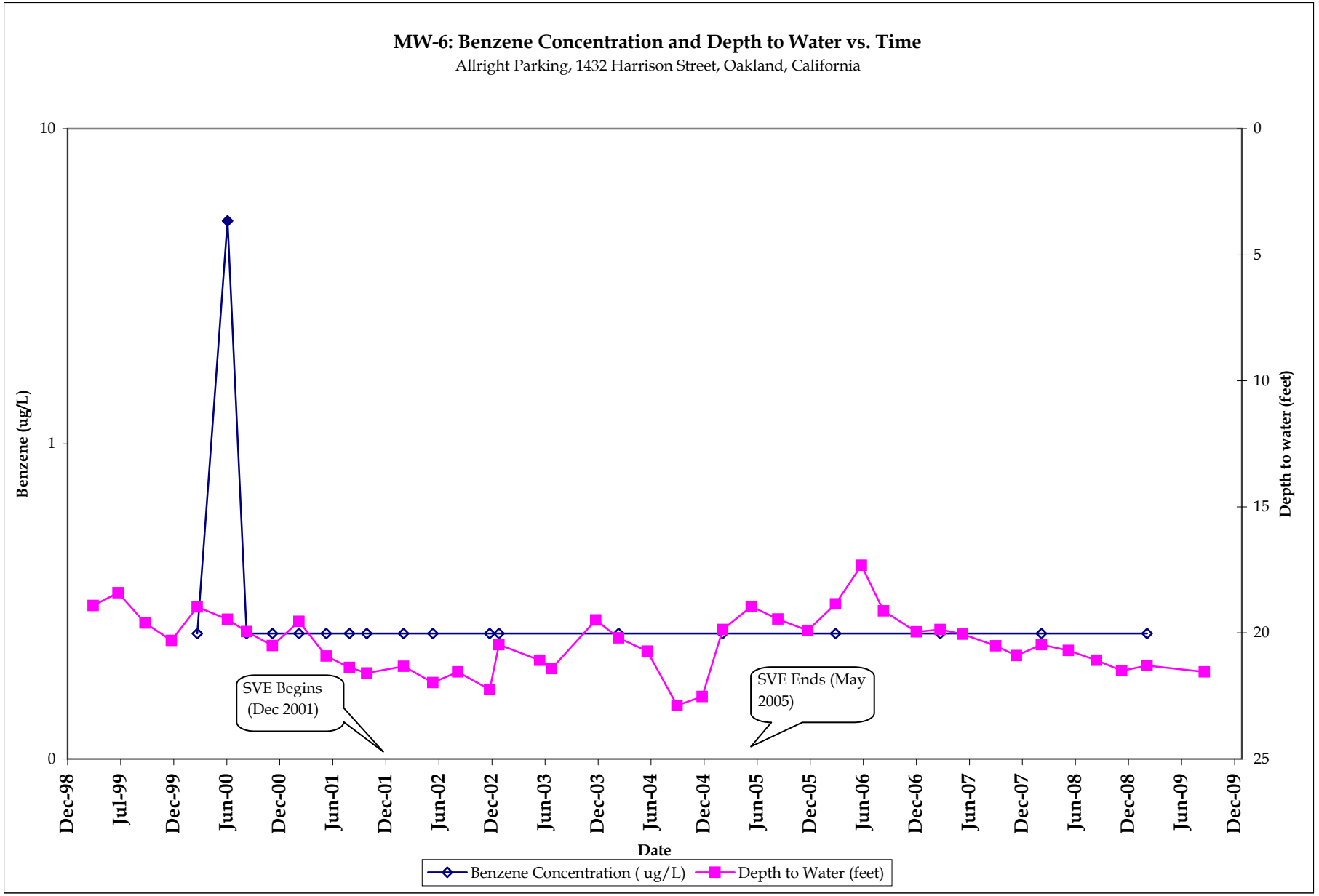
Allright Parking, 1432 Harrison Street, Oakland, California




MW-3:Benzene Concentration and Depth to Water vs. Time
Allright Parking, 1432 Harrison Street, Oakland, California
Benzene (ug/L)
10.0
1.0
0.1
Depth to water (feet)
0
5
10
15
20
25
Dec-98
Jun-99
Dec-99
Jun-00
Dec-00
Jun-01
Dec-01
Jun-02
Dec-02
Jun-03
Dec-03
Jun-04
Dec-04
Jun-05
Dec-05
Jun-06
Dec-06
Jun-07
Dec-07
Jun-08
Dec-08
Jun-09
Dec-09
Date
SVE Begins
(Dec 2001)
SVE Ends
(May 2005)
Benzene Concentration (ug/L)
Depth to Water (feet)


MW-4: Benzene Concentration and Depth to Water vs. Time
Allright Parking, 1432 Harrison Street, Oakland, California
100,000
1,000
10
0
Benzene (ug/L)
0
5
10
15
20
25
Depth to water (feet)
Dec-98
Jul-99
Dec-99
Jun-00
Dec-00
Jun-01
Dec-01
Jun-02
Dec-02
Jun-03
Dec-03
Jun-04
Dec-04
Jun-05
Dec-05
Jun-06
Dec-06
Jun-07
Dec-07
Jun-08
Dec-08
Jun-09
Dec-09
Date
SVE Begins
(Dec 2001)
SVE Ends
(May 2005)
Benzene Concentration (ug/L)
Depth to Water (feet)


MW-5: Benzene Concentration and Depth to Water vs. Time
Allright Parking, 1432 Harrison Street, Oakland, California
Benzene(ug/L)
10,000
1,000
100
10
1
0
Depth to water (feet)
0
5
10
15
20
25
Dec-98
Jul-99
Dec-99
Jun-00
Dec-00
Jun-01
Dec-01
Jun-02
Dec-02
Jun-03
Dec-03
Jun-04
Dec-04
Jun-05
Dec-05
Jun-06
Dec-06
Jun-07
Dec-07
Jun-08
Dec-08
Jun-09
Dec-09
Date
SVE Begins (Dec
SVE Ends (May 2005)
Benzene Concentration (ug/L)
Depth to Water (feet)


MW-6: Benzene Concentration and Depth to Water vs. Time
Allright Parking, 1432 Harrison Street, Oakland, California
Benzene (ug/L)
10
1
0
Depth to water (feet)
0
5
10
15
20
25
Dec-98
Jul-99
Dec-99
Jun-00
Dec-00
Jun-01
Dec-01
Jun-02
Dec-02
Jun-03
Dec-03
Jun-04
Dec-04
Jun-05
Dec-05
Jun-06
Dec-06
Jun-07
Dec-07
Jun-08
Dec-08
Jun-09
Dec-09
Date
SVE Begins (Dec 2001)
SVE Ends (May 2005)
Benzene Concentration (ug/L)
Depth to Water (feet)

APPENDIX C

STANDARD OPERATING PROCEDURES

STANDARD FIELD PROCEDURES FOR SOIL VAPOR PROBE INSTALLATION AND SAMPLING

VAPOR PROBE METHODS

This document describes Conestoga-Rovers & Associates' standard field procedures for soil vapor sampling. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil vapor samples are collected and analyzed to assess whether vapor-phase subsurface contaminants pose a threat to human health or the environment.

Shallow Soil Vapor Probe Installation

The shallow soil vapor probe method for soil vapor sampling utilizes a hand auger or drill rig to advance a boring for the installation of a soil vapor sampling probe to facilitate the collection of in-situ vapor samples. Once the boring is advanced to the final depth, a probe, connected with Swagelok fittings to nylon or Teflon tubing of ¼-inch outer-diameter, is placed approximately 6 inches from the bottom of the boring and surrounded by 12-inches of number 2/16 filter sand (Figure A). A 12-inch layer of dry granular bentonite is placed on top of the filter pack. Pre-hydrated granular bentonite is then poured to fill the borehole. The tube is coiled and placed within a wellbox finished flush to the surface. Soil vapor samples will be collected no sooner than 48 hours after installation of the soil vapor probe to allow adequate time for representative soil vapors to accumulate. Soil vapor sample collection will not be scheduled until after a minimum of three consecutive precipitation-free days and irrigation onsite has ceased. Figure B shows the soil vapor sampling apparatus. A measured volume of air will be purged from the tubing using a different Summa purge canister. Immediately after purging, soil vapor samples will be collected using the appropriate size Summa canister with attached flow regulator and sediment filter. The soil vapor probes will be preserved until they are no longer needed for risk evaluation purposes. At that time, they will be destroyed by extracting the tubing, hand augering to remove the sand and bentonite, and backfilling the boring with neat cement. The boring will be patched with asphalt or concrete, as appropriate.

Sampling of Soil Vapor Probes

Samples will be collected using a SUMMA™ canister connected to the sampling tube of each vapor probe. Prior to collecting soil vapor samples, the initial vacuum of the canisters is measured and recorded on the chain-of-custody. The vacuum of the SUMMA™ canister is used to draw the soil vapor through the flow controller until a negative pressure of approximately 5-inches of Hg is observed on the vacuum gauge and

recorded on the chain-of-custody. The flow controllers should be set to 100-200 ml/minute. Field duplicates should be collected for every dayof sampling and/or for every 10 samples collected.

Prior to sample collection, stagnant air in the sampling apparatus should be removed by purging approximately 3 purge volumes. The purge volume is defined as the amount of air within the probe and tubing.

In accordance with the DTSC guidance document titled *Advisory-Active Soil Gas Investigations,* dated January 28, 2003, leak testing is necessary during sampling. Helium is recommended, although shaving cream is acceptable.

Vapor Sample Storage, Handling and Transport

Samples are stored and transported under chain-of-custody to a state-certified analytic laboratory. Samples should never be cooled due to the possibility of condensation within the canister.

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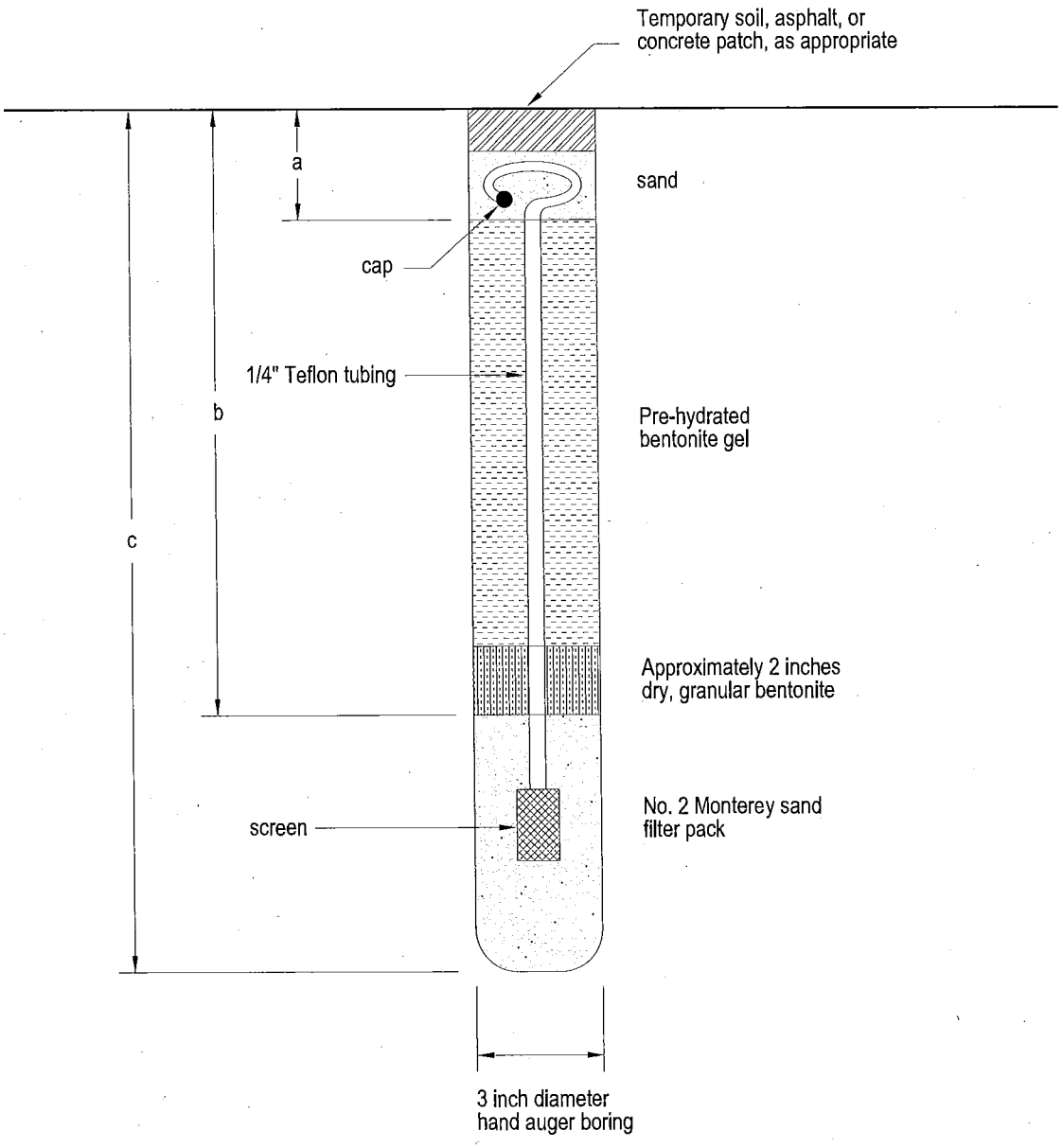

FIGURE

A

Schematic Not to Scale

S:\O-TEXACO\TEX-SITES\211273\FIGURES\VAPOR-POINT.DWG

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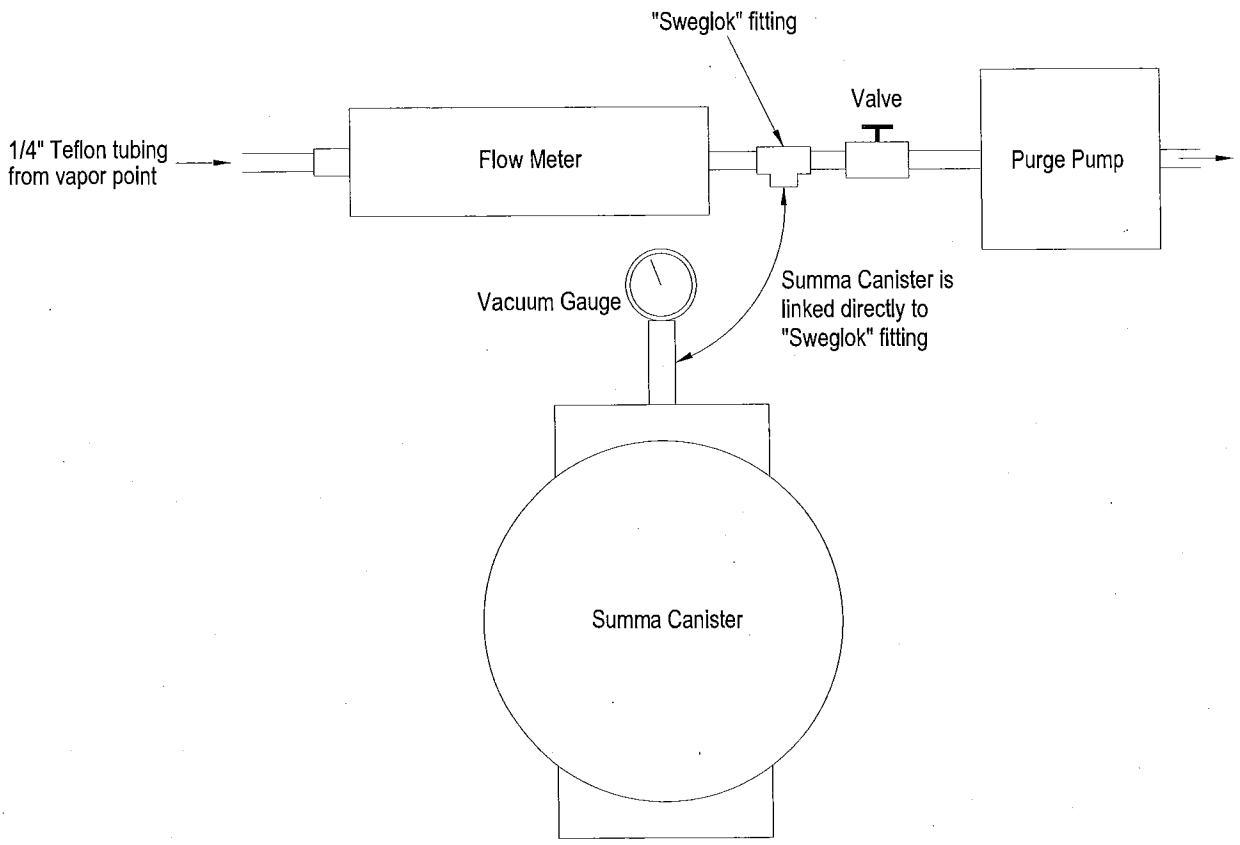
& ASSOCIATES

Soil Vapor Point

09/25/02



FIGURE

B

Schematic Not to Scale

S:\0-TEXACO\TEX-SITES\211273\FIGURES\VAPOR-DIAG.DWG

CONESTOGA-ROVERS
& ASSOCIATES

Soil Vapor Sampling Apparatus Diagram

Mercury Sampling Method

Per Communication from Data Chem

Soil gas samples for mercury will be collected from each sampling point using a sampling pump and Solid Sorbent Tube Sampler. A Field Black Solid Sorbent Tube, exposed to ambient air will be used at each sampling location to insure quality control. Using the Solid Sorbent Tube and a laboratory calibrated AirCheck sample pump, purge and sampling rates will be approximately 0.2 millimeters per minute to limit stripping and to prevent ambient air intrusion. With the Solid Sorbent Tube inserted in the AirCheck sample pump, the pump should be set to approximately 0.2 millimeters per minute flow rate for a 10 minute interval to establish a detection limit below a risk value of 19 ug/m^3. The mercury sample is then analyzed using Method 6009.

Hg MW: 200.59 CAS: 7439-97-6 RTECS: OV4550000

METHOD: 6009, Issue 2 EVALUATION: PARTIAL Issue 1: 15 May 1989
Issue 2: 15 August 1994

OSHA : C 0.1 mg/m^3 (skin)
NIOSH: 0.05 mg/m^3 (skin)
ACGIH: 0.025 mg/m^3 (skin)

PROPERTIES: liquid; d 13.55 g/mL @ 20 °C; BP 356 °C; HP -39 °C; VP 0.16 Pa (0.0012 mm Hg; 13.2 mg/m^3) @ 20 °C; Vapor Density (air=1) 7.0

SYNONYMS: quicksilver

SAMPLING		MEASUREMENT	
SAMPLER:	SOLID SORBENT TUBE (Hopcalite in single section, 200 mg)	TECHNIQUE:	ATOMIC ABSORPTION, COLD VAPOR
FLOW RATE:	0.15 to 0.25 L/min	ANALYTE:	elemental mercury
VOL-MIN:	2 L @ 0.5 mg/m^3	DESORPTION:	conc. HNO_3/HCl @ 25 °C, dilute to 50 mL
-MAX:	100 L	WAVELENGTH:	253.7 nm
SHIPMENT:	routine	CALIBRATION:	standard solutions of Hg^{2+} in 1% HNO_3
SAMPLE STABILITY:	30 days @ 25 °C [1]	RANGE:	0.1 to 1.2 µg per sample
FIELD BLANKS:	2 to 10 field blanks per set	ESTIMATED LOD:	0.03 µg per sample
MEDIA BLANKS:	at least 3 per set	PRECISION ($\hat{S}_r$):	0.042 @ 0.9 to 3 µg per sample [4]

ACCURACY	
RANGE STUDIED:	0.002 to 0.8 mg/m^3 [2] (10-L samples)
BIAS:	not significant
OVERALL PRECISION ($\hat{S}_{rT}$):	not determined
ACCURACY:	not determined

APPLICABILITY: The working range us 0.01 to 0.5 mg/m^3 for a 10-L air sample. The sorbent material irreversibly collects elemental mercury. A prefilter can be used to exclude particulate mercury species from the sample. The prefilter can be analyzed by similar methodology. The method has been used in numerous field surveys [3].

INTERFERENCES: Inorganic and organic mercury compounds may cause a positive interference. Oxidizing gases, including chlorine, do not interfere.

OTHER METHODS: This replaces method 6000 and its predecessors, which required a specialized desorption apparatus [4,5,6]. This method is based on the method of Rathje and Marcero [7] and is similar to the OSHA method ID 145H [2].

REAGENTS:

1. Water, organics-free, deionized.
2. Hydrochloric acid (HCl), conc.
3. Nitric acid (HNO_3), conc.
4. Mercuric oxide, reagent grade, dry.
5. Calibration stock solution, Hg^{2+}, 1000 µg/mL. Commercially available or dissolve 1.0798 g of dry mercuric oxide (HgO) in 50 mL of 1:1 hydrochloric acid, then dilute to 1 L with deionized water.
6. Intermediate mercury standard, 1 µg/mL. Place 0.1 mL 1000 µg/mL stock into a 100 mL volumetric containing 10 mL deionized water and 1 mL hydrochloric acid. Dilute to volume with deionized water. Prepare fresh daily.
7. Stannous chloride, reagent grade, 10% in 1:1 HCl. Dissolve 20 g stannous chloride in 100 mL conc. HCl. Slowly add this solution to 100 mL deionized water and mix well. Prepare fresh daily.
8. Nitric acid, 1% (w/v). Dilute 14 mL conc. HNO_3 to 1 L with deionized water.

EQUIPMENT:

1. Sampler: glass tube, 7 cm long, 6-mm OD, 4-mm ID, flame sealed ends with plastic caps, containing one section of 200 mg Hopcalite held in place by glass wool plugs (SKC, Inc., Cat. #226-17-1A, or equivalent).
   NOTE: A 37-mm, cellulose ester membrane filter in a cassette preceding the sorbent may be used if particulate mercury is to be determined separately.
2. Personal sampling pump, 0.15 to 0.25 L/min, with flexible connecting tubing.
3. Atomic absorption spectrophotometer with cold vapor generation system (see Appendix) or cold vapor mercury analysis system.*
4. Strip chart recorder, or integrator.
5. Flasks, volumetric, 50-mL, and 100-mL.
6. Pipet, 5-mL, 20-mL, others as needed.
7. Micropipet, 10- to 1000-µL.
8. Bottles, biological oxygen demand (BOD), 300-mL.

* See SPECIAL PRECAUTIONS

SPECIAL PRECAUTIONS: Mercury is readily absorbed by inhalation and contact with the skin. Operate the mercury system in a hood, or bubble vented mercury through a mercury scrubber.

SAMPLING:

1. Calibrate each personal sampling pump with a representative sampler in line.
2. Break ends of sampler immediately prior to sampling. Attach sampler to pump with flexible tubing.
3. Sample at an accurately known rate of 0.15 to 0.25 L/min for a total sample size between 2 and 100 L.
   NOTE: Include a minimum of three unopened sampling tubes from the same lot as the samples for use as media blanks.
4. Cap sampler and pack securely for shipment.

SAMPLE PREPARATION:

5. Place the Hopcalite sorbent and the front glass wool plug from each sampler in separate 50-mL volumetric flasks.
6. Add 2.5 mL conc. HNO_3 followed by 2.5 mL conc. HCl.
   NOTE: The mercury must be in the oxidized state to avoid loss. For this reason, the nitric acid must be added first.
7. Allow the sample to stand for 1 h or until the black Hopcalite sorbent is dissolved. The solution will turn dark brown and may contain undissolved material.
8. Carefully dilute to 50 mL with deionized water. (Final solution is blue to blue-green).
9. Using a volumetric pipet, transfer 20 mL of the sample to a BOD bottle containing 80 mL of deionized water. If the amount of mercury in the sample is expected to exceed the standards, a smaller aliquot may be taken, and the volume of acid adjusted accordingly. The final volume in

the BOD bottle must be 100 mL. To prevent possible loss of mercury during transfer, place the pipet tip below the surface of the liquid in the BOD bottle.

CALIBRATION AND QUALITY CONTROL:

10. Prepare a minimum of two series (six levels each) of working standards covering the range 0.01 to 0.5 µg Hg per aliquot by adding known amounts of the intermediate standard to BOD bottles containing enough 1% nitric acid to bring the final volume to 100 mL.
11. Analyze the working standards together with the samples and blanks (steps 13 through 16). Analyze full set of standards at the beginning of the run, and a second set at the end of the run. Additional standards may be run intermediately during the analysis to confirm instrument response.
12. Prepare calibration graph (peak height vs. solution concentration, µg/sample).

MEASUREMENT:

13. Zero the spectrophotometer by removing the bubbler from the BOD bottle, allowing the baseline on the recorder to stabilize.
14. Place the bubbler in a BOD bottle containing 0.5 µg mercury in 100 mL 1% nitric acid. Adjust the spectrophotometer so that it will give a 75% to full-scale deflection of the recorder.
15. Vent the mercury vapor from the system.
16. Analyze standards, samples and blanks (including media blanks).
    a. Remove the bubbler from the BOD bottle.
    b. Rinse the bubbler with deionized water.
    c. Allow the recorder tracing to establish a stable baseline.
    d. Remove the stopper from the BOD bottle containing the next sample to be analyzed. Gently swirl the BOD bottle.
    e. Quickly add 5 mL 10% stannous chloride solution.
    f. Quickly place the bubbler into the BOD bottle.
    g. Allow the spectrophotometer to attain maximum absorbance.
    h. Vent the mercury vapor from the system.
    i. Place the bubbler into an empty BOD bottle. Continue venting the mercury until a stable baseline is obtained.
    j. Close the mercury vent.

CALCULATIONS:

17. Calculate the amount of mercury in the sample aliquot (W, µg) from the calibration graph.
18. Calculate the concentration C (mg/m ^{3}), of mercury in the air volume sampled, V (L):

$$C = \frac{W \cdot \frac{V_s}{V_a} - B}{V}.$$

Where: Vs = original sample volume (step 8; normally 50 mL)
Va = aliquot volume (step 9; normally 20 mL)
B = average amount of mercury present in the media blanks

EVALUATION OF METHOD:

Rathje and Marcero originally used Hopcalite (MSA, Inc.) as the sorbent material [7]. Later, Hopcalite was shown superior to other methods for the determination of mercury vapor [8]. Atmospheres of mercury vapor for the study were dynamically generated in the range 0.05 to 0.2 mg/m ^{3} and an adsorbent tube loading of 1 to 7 µg was used. The Hydrar material sometimes used is similar to Hopcalite. No significant difference in the laboratory analysis of mercury collected on the two sorbent materials was observed [9]. OSHA also validated a method for mercury using Hydrar [2]. An average 99% recovery, with $\bar{S}r = 0.042$, was seen for 18 samples with known amounts (0.9 to 3 µg) of mercury added (as $Hg(NO_3)_2$) [10]. No change in recovery was seen for samples stored up to 3 weeks at room temperature or up to 3 months at -15 °C; longer storage times were not investigated [10].

REFERENCES:

[1] Evaluation of Mercury Solid Sorbent Passive Dosimeter, Backup Data Report. Inorganic Section, OSHA Analytical Laboratory, Salt Lake City, Utah, 1985.
[2] Mercury in Workplace Atmospheres (Hydrar Tubes). Method ID 145H, Inorganic Section, OSHA Analytical Laboratory, Salt Lake City, UT, 1987.
[3] NIOSH/MRSB. Reports for analytical Sequence Nos. 5854, 5900, 6219, and 6311, NIOSH (Unpublished, 1987-1988).
[4] NIOSH Manual of Analytical Methods, 3rd. ed., Method 6000. (1984).
[5] NIOSH Manual of Analytical Methods. 2nd. ed., V. 4, S199, U.S. Dept. of Health. Education, and Welfare Publ. (NIOSH) 79-141 (1979).
[6] Ibid., V. 5, P&CAM 175, Publ. (NIOSH) 79-141 (1979).
[7] Rathje, A.O., Marcero, D.H. Improved hopcalite procedure for the determination of mercury in air by flameless atomic absorption, Am. Ind. Hyg. Assoc. J. 37, 311-314 (1976).
[8] McCammon, C.S., Edwards, S.L., Hull, R.D., Woodfin, W.J., A comparison of four personal sampling methods for the determination of mercury vapor, Am. Ind. Hyg. Assoc. J., 41, 528-531 (1980).
[9] Internal Methods Development Research, DataChem Laboratories, Inc., Salt Lake City, UT (1982).
[10] Eller, P.M., NIOSH, unpublished data (1987-88).

METHOD WRITTEN BY:

Keith R. Nicholson and Michael R. Steele, DataChem Laboratories, Inc., Salt Lake City, Utah, under NIOSH contract No. 200-87-2533.

APPENDIX: COLD VAPOR MERCURY ANALYSIS SYSTEM

1. The valve should direct the vented vapors to a hood or to a mercury scrubber system.
2. When the valve is opened to "Vent" the peristaltic pump should draw room air. Place a Hopcalite tube in the air intake to eliminate any mercury that may be present.
3. Adjust the peristaltic pump to a flow that will create a steady stream of bubbles in the BOD bottle, but not so great that solution droplets enter the tubing to the quartz cell.
4. If water vapor condenses in the quartz cell, heat the cell slightly above room temperature by wrapping it with a heating coil and attaching a variable transformer.
5. The bubbler consists of a glass tube with a bulb at the bottom, slightly above the bottom of the BOD bottle. The bulb contains several perforations to allow air to escape into the solution (in a stream of small bubbles). A second tube is provided to allow the exit of the vapor. The open end of the second tube is well above the surface of the liquid in the bottle. The two tubes are fixed into a stoppering device (preferably ground glass) which fits into the top of the bottle. A coarse glass frit can be used in place of the bulb on the first tube. However, it is more difficult to prevent contamination when a frit is used.
6. Replace the flexible tubing (Tygon or equivalent) used to connect the bubbler, cell, and pump periodically to prevent contamination from adsorbed mercury.

STANDARD FIELD PROCEDURES
HAND-AUGER SOIL BORINGS AND SAMPLING

This document describes Conestoga-Rovers & Associates standard field methods for drilling and sampling soil borings using a hand-auger. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the modified Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or product saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy), &
- Estimated permeability.

Soil Boring and Sampling

Hand-auger borings are typically drilled using a hand-held bucket auger to remove soil to the desired sampling depth. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the augered hole. The vertical location of each soil sample is determined using a tape measure. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

Augering and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are collected from the open borehole using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are collected usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

The borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

STANDARD FIELD PROCEDURES
SOIL BORINGS AND SAMPLING

This document describes Conestoga-Rovers & Associates' standard field methods for drilling and sampling soil borings. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the modified Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or product saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or hydraulic push technologies. At least one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the borehole. The vertical location of each soil sample is determined by measuring the distance from the middle of the soil sample tube to the end of the drive rod used to advance the split barrel sampler. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch type sampler or are collected from the open borehole using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are collected usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55 gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

STANDARD FIELD PROCEDURES FOR GEOPROBE® / DIRECT PUSH SOIL AND GROUNDWATER SAMPLING

This document describes Conestoga-Rovers & Associates' standard field methods for GeoProbe® or Direct Push soil and groundwater sampling. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the modified Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e., sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or separate-phase hydrocarbon saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e., cementation, presence of marker horizons, mineralogy), &
- Estimated permeability.

Soil Sampling

GeoProbe® or Direct Push soil samples are collected from borings driven using hydraulic push technologies. A minimum of one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples can be collected near the water table and at lithologic changes. Samples are collected using samplers lined with polyethylene or brass tubes driven into undisturbed sediments at the bottom of the borehole. The ground surface immediately adjacent to the boring is used as a datum to measure sample depth. The horizontal location of each boring is measured in the field relative to a permanent on-site reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned or washed prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon® tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

After a soil sample has been collected, soil from the remaining tubing is placed inside a sealed plastic bag and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable GasTech® or photoionization detector measures volatile hydrocarbon vapor concentrations in the bag's headspace, extracting the vapor through a slit in the plastic bag. The measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Grab Groundwater Sampling

Groundwater samples are collected from the open borehole using bailers, advancing disposable Tygon® tubing into the borehole and extracting ground water using a diaphragm pump, or using a hydro-punch style sampler with a bailer or tubing. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4° C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory quality assurance/quality control (QA/QC) blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

STANDARD FIELD PROCEDURES

GEOPROBE® / DIRECT PUSH
DISCRETE DEPTH SOIL AND GROUND WATER SAMPLING

This document describes Conestoga-Rovers & Associates standard field methods for GeoProbe® and Direct Push soil and ground water sampling. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the modified Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e., sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or separate-phase hydrocarbon saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e., cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Sampling

GeoProbe® and Direct Push soil samples are collected from borings driven using hydraulic push technologies. A minimum of one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples can be collected near the water table and at lithologic changes. Samples are collected using samplers lined with polyethylene or brass tubes driven into undisturbed sediments at the bottom of the borehole. The ground surface immediately adjacent to the boring is used as a datum to measure sample depth. The horizontal location of each boring is measured in the field relative to a permanent on-site reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned or washed prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon® tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

After a soil sample has been collected, soil from the remaining tubing is placed inside a sealed plastic bag and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable GasTech® or photoionization detector measures volatile hydrocarbon vapor concentrations in the bag's headspace, extracting the vapor through a slit in the plastic bag. The measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Grab Ground Water Sampling

Ground water samples are collected from the open borehole using bailers, advancing disposable Tygon® tubing into the borehole and extracting ground water using a diaphragm pump, or using a hydro-punch style sampler with a bailer or tubing. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4° C, and transported under chain-of-custody to the laboratory.

Discrete Depth Soil and Ground Water Sampling

Soil and groundwater samples are collected for lithologic and chemical analysis using a direct driven, dual tube soil coring system. A hydraulic hammer drives sampling rods into he ground to collect continuous soil cores. Two nested sampling rods are driven at the same time: a larger diameter outer rod to act as a temporary drive casing and a smaller inner rod to retrieve soil cores. As the rods are advanced the soil is driven into a sample barrel that is attached to the end of the inner rod. The outer rod ensures that the sample is collected from the desired interval by preventing sloughing of the overlying material. After reaching the desired depth the inner rods are removed from the boring and the sleeves containing the soil sample are removed from the inner sample barrel. Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon® tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

When collecting groundwater samples, the sample barrel and inner rods are removed from the boring once the targeted water bearing zone has been reached. The drive casing is pulled up from 0.5 to 5 feet to allow groundwater to enter the borehole. Small diameter well casing and screen is then installed in the borehole to facilitate sample collection. The drive casing is then pulled up sufficiently to expose the desired length of screen and samples are collected using a bailer, peristaltic, bladder or inertial pump. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4° C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples

collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory quality assurance/quality control (QA/QC) blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

APPENDIX D

BORING/CONSTRUCTION LOGS, AUGUST 2009

Boring/Well Log Legend

KEY TO SYMBOLS/ABBREVIATIONS

- First encountered groundwater
- Static groundwater
- Soils logged by hand-auger or air-knife cuttings
- Soils logged by drill cuttings or disturbed sample
- Undisturbed soil sample interval
- Soil sample retained for submittal to analytical laboratory
- No recovery within interval
- Hydropunch screen interval

PID = Photo-ionization detector or organic vapor meter reading in parts per million (ppm)

fbg = Feet below grade

Blow Counts = Number of blows required to drive a California-modified split-spoon sampler using a 140-pound hammer falling freely 30 inches, recorded per 6-inch interval of a total 18-inch sample interval

(10YR 4/4) = Soil color according to Munsell Soil Color Charts

msl = Mean sea level

Soils logged according to the USCS.

UNIFIED SOILS CLASSIFICATION SYSTEM (USCS) SUMMARY

Major Divisions			Graphic	Group Symbol	Typical Description
Coarse-Grained Soils (>50% Sands and/or Gravels)	Gravel and Gravelly Soils	Clean Gravels (≤5% fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with Fines (≥15% fines)		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-clay mixtures
	Sand and Sandy Soils	Clean Sands (≤5% fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sand, little or no fines
		Sands with Fines (≥15% fines)		SM	Silty sands, sand-silt mixtures
				SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils (>50% Silts and/or Clays)	Silts and Clays			ML	Inorganic silts, very fine sands, silty or clayey fine sands, clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity
				OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils				PT	Peat, humus, swamp soils with high organic contents

I:\MISC\TEMPLATES\BORING LOG LEGEND.AI

CONESTOGA-ROVERS & ASSOCIATES

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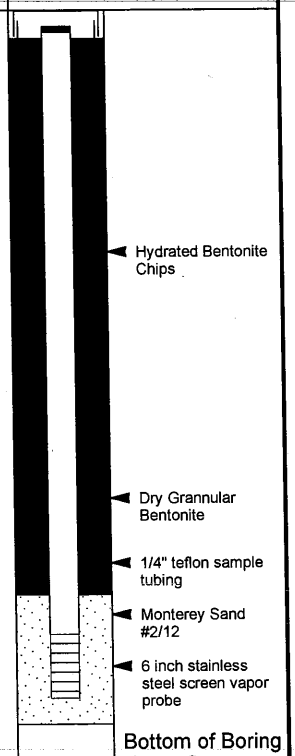
BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	SV-3
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-Aug-09
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-Aug-09
PROJECT NUMBER	540-0188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	4.8 to 5.3 fbg
LOGGED BY	C. Hee	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY		**DEPTH TO WATER (Static)**	NA ▼
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)
							CONCRETE: 6 inches thick.	0.5
					SP		**SAND with SILT:** Dark brown (10YR 3/3); dry; 10% silt, 90% medium grained sand; non-plastic; high estimated permeability.	
							@ 3': Brown (10YR 4/3); dry; 10% silt, 90% medium grained sand; non-plastic; high estimated permeability.	4.0
					CL		**Sandy CLAY with Silt:** Dark grayish brown (10YR 4/2); 60% clay, 10% silt, 30% medium grained sand; medium plasticity; low estimated permeability.	4.5
				5	SP		**SAND with Silt:** Yellowish brown (10YR 5/6); dry; 10% silt, 90% medium grained sand; non-plastic; high estimated permeability.	5.5



WELL LOG (PID) I:\IR\6-CHARS\5401-\540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 12/4/09

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	SV-4
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-Aug-09
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-Aug-09
PROJECT NUMBER	540-0188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	4.8 to 5.3 fbg
LOGGED BY	B. Fong	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY		**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT: 2 inches.	0.2	
							CONCRETE: 6 inches.	0.7	
					SM		**Silty SAND:** Grayish brown (5YR 3/2); moist; 40% silt, 60% fine grained sand; non-plastic; high estimated permeability.		Hydrated Bentonite Chips
							@ 2': Moderate yellowish brown (10YR 5/4); moist; 40% silt, 60% fine grained sand; non-plastic; high estimated permeability.		
							@ 3': Moderate yellowish brown (10YR 5/4); moist; 20% silt, 80% fine grained sand; non-plastic; high estimated permeability.		Dry Grannular Bentonite 1/4" teflon sample tubing Monterey Sand #2/12
				5			@ 5': Dark yellowish orange (10YR 6/6); moist; 5% clay, 30% silt, 65% fine grained sand; non-plastic; moderate to high estimated permeability.		6 inch stainless steel screen vapor probe
								5.8	Bottom of Boring @ 5.75 fbg

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	SV-5
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-Aug-09
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-Aug-09
PROJECT NUMBER	540-0188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	4.8 to 5.3 fbg
LOGGED BY	C. Hee	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY		**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT: 2 inches thick.	0.2	
							CONCRETE: 6 inches thick.	0.7	
					SP		**SAND with Silt:** Dark brown (10YR 3/3); dry; 10% silt, 90% medium grained sand; non-plastic; high estimated permeability.		Hydrated Bentonite Chips
				5					Dry Grannular Bentonite
									1/4" teflon sample tubing
									Monterey Sand #2/12
								5.5	6 inch stainless steel screen vapor probe
									Bottom of Boring @ 5.5 fbg

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	SV-6
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-Aug-09
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-Aug-09
PROJECT NUMBER	540-0188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	4.8 to 5.3 fbg
LOGGED BY	C. Hee	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY		**DEPTH TO WATER (Static)**	NA ▼
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT: 2 inches thick.	0.2	
							CONCRETE: 8 inches thick.		
								0.8	
					SP		**SAND with Silt:** Brown (10YR 4/3); moist; 10% silt, 90% medium grained sand; non-plastic; high estimated permeability.		Hydrated Bentonite Chips; Dry Grannular Bentonite; 1/4" teflon sample tubing; Monterey Sand #2/12; 6 inch stainless steel screen vapor probe
				5				5.5	Bottom of Boring @ 5.5 fbg

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	SV-7
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-Aug-09
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-Aug-09
PROJECT NUMBER	540-0188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	4.8 to 5.3 fbg
LOGGED BY	B. Fong	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY		**DEPTH TO WATER (Static)**	NA ▼
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							CONCRETE: 6 inches thick.	0.5	
					SM		**Silty SAND:** Pale brown (5YR 5/2); moist; 20% silt, 80% fine grained sand; non-plastic; high estimated permeability.		Hydrated Bentonite Chips; Dry Grannular Bentonite; 1/4" teflon sample tubing; Monterey Sand #2/12; 6 inch stainless steel screen vapor probe
				5				5.8	Bottom of Boring @ 5.8 fbg

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	SV-8
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-Aug-09
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-Aug-09
PROJECT NUMBER	540-0188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	4.8 to 5.3 fbg
LOGGED BY	B. Fong	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY		**DEPTH TO WATER (Static)**	NA ▼
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							CONCRETE: 6 inches thick.	0.5	
					SM		**Silty SAND:** Pale brown (5YR 5/2); moist; 20% silt, 80% fine grained sand; non-plastic; high estimated permeability.		Hydrated Bentonite Chips; Dry Grannular Bentonite; 1/4" teflon sample tubing; Monterey Sand #2/12; 6 inch stainless steel screen vapor probe
				5				5.5	Bottom of Boring @ 5.5 fbg

WELL LOG (PID) I:\IR\6-CHARS\5401--\540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 9/10/09

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-24
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-Aug-09
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-Aug-09
PROJECT NUMBER	540-0188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Direct push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	2.5 inches	**SCREENED INTERVALS**	NA
LOGGED BY	B. Fong	**DEPTH TO WATER (First Encountered)**	25.00 fbg (31-Aug-09)
REVIEWED BY		**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT: 2 inches thick.	0.2	
							CONCRETE: 6 inches thick.	0.7	
							Silty SAND: Moderate yellowish brown (10YR 5/4); moist; 20% silt, 80% fine grained sand; non-plastic; high estimated permeability.		
0.8		B-24- 5		5			@ 7': Dark yellowish orange (10YR 6/6); moist; 5% clay, 30% silt, 65% fine grained sand; non-plastic; moderate to high estimated permeability.		
1.3		B-24- 10		10	SM		@ 10': Mottled moderate yellowish brown and dark yellowish orange (10YR 5/4 and 10YR 6/6); moist; 40% silt, 60% fine grained sand; non-plastic; moderate to high estimated permeability.		
							@ 13': Moderate yellowish brown (10YR 5/4); moist; 5% clay, 25% silt, 70% fine grained sand; non-plastic; moderate estimated permeability.		
0		B-24- 15		15			@ 15': Moderate yellowish brown (10YR 5/4); moist; 20% silt, 80% fine grained sand; non-plastic; moderate to high estimated permeability.		
				20				20.0	

WELL LOG (PID) I:\IR\6-CHARS\5401--540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 12/4/09

Continued Next Page

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-24
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-Aug-09
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-Aug-09

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
153		B-24-20			SP		**SAND with Silt:** Grayish green (5G 5/2); moist; 10% silt, 90% fine grained sand; non-plastic; high estimated permeability.		
								23.0	
					SM		**Silty SAND:** Mottled grayish yellow green and grayish olive green (5GY 7/2 and 5GY 3/2); moist; 20% silt, 80% fine grained sand; non-plastic; high estimated permeability.		
57		B-24-25		25			@ 25': Dusky yellow green (5GY 5/2); wet; 20% silt, 80% fine grained sand; non-plastic; high estimated permeability.		Portland Type I/II
								26.0	
							SAND with Silt: Grayish olive green (5GY 3/2); wet; 10% silt, 90% fine grained sand; non-plastic; high estimated permeability.		
58		B-24-29.5		30	SP				
25		B-24-35		35			@ 35': Olive gray (5Y 3/2); wet; 10% silt, 90% fine grained sand; non-plastic; high estimated permeability.		
								38.0	
					SM		**Silty SAND:** Olive gray (5Y 3/2); wet; 20% silt, 80% fine grained sand; non-plastic; high estimated permeability.		
				40			NO RECOVERY	40.0	

WELL LOG (PID) I:\IR\6-CHARS\5401--\540188\540188-1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 12/4/09

Continued Next Page

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-24
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-Aug-09
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-Aug-09

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				45					
								48.0	
					ML		**Sandy SILT with Gravel:** Mottled dark yellowish orange and pale yellowish orange (10YR 6/6 and 10YR 8/6); moist; 5% clay, 65% silt, 20% fine to coarse grained sand, 10% gravel up to 1/4"; low plasticity; moderate estimated permeability.	49.0	
286		B-24- 49.5		50	SP		**SAND with Silt:** Light olive gray (5Y 5/2); wet; 10% silt, 90% fine grained sand; non-plastic; high estimated permeability.	50.0	Bottom of Boring @ 50 fbg

WELL LOG (PID) I:\IR16-CHARS\5401--\540188\540188--1\54CAFB--1\BORSUK.GPJ DEFAULT.GDT 12/4/09

APPENDIX E

PERMIT/DWR WELL COMPLETION REPORTS

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

Application Approved on: 04/23/2009 By jamesy

Permit Numbers: W2009-0312 to W2009-0313
Permits Valid from 08/24/2009 to 08/26/2009

Application Id: 1240505043143
Site Location: 1434 Harrison St, Oakland, CA 94612
Project Start Date: 05/04/2009
Extension Start Date: 08/24/2009
Extension Count: 1

City of Project Site: Oakland
Completion Date: 05/06/2009
Extension End Date: 08/26/2009
Extended By: vickyh1

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

Applicant: Conestoga - Rovers & Associates - Michael Werner
5900 Hollis St. Ste. A, Emeryville, CA 94608
Phone: 510-420-0700

Property Owner: Mark Borsuk
1626 Vallejo St., San Francisco, CA 94123
Phone: 415-922-4740

Client: ** same as Property Owner **

Total Due: $575.00
Receipt Number: WR2009-0150 **Total Amount Paid:** $575.00
Payer Name : Conestoga Rovers & Paid By: CHECK **PAID IN FULL**
Associates

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 1 Wells
Driller: Vironex - Lic #: 123456 - Method: Hand

Work Total: $345.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0312	04/23/2009	08/02/2009	MW-7 cancelled	8.00 in.	2.00 in.	13.00 ft	25.00 ft

Specific Work Permit Conditions

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

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

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

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

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

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

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

8. Minimum surface seal thickness is two inches of cement grout placed by tremie

9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

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

Borehole(s) for Investigation-Geotechnical Study/CPT's - 10 Boreholes
Driller: Vironex (Gregg Drilling #485165) - Lic #: 123456 - Method: DP **Work Total: $230.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2009-0313	04/23/2009	08/02/2009	10	3.00 in.	50.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

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

4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits

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

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

Application Approved on: 04/23/2009 By jamesy

Permit Numbers: W2009-0312 to W2009-0313
Permits Valid from 08/31/2009 to 09/02/2009

Application Id:	1240505043143	**City of Project Site:**	Oakland
Site Location:	1434 Harrison St, Oakland, CA 94612		
Project Start Date:	05/04/2009	**Completion Date:**	05/06/2009
Assigned Inspector:	Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org		
Extension Start Date:	08/31/2009	**Extension End Date:**	09/02/2009
Extension Count:	2	**Extended By:**	jamesy
Applicant:	Conestoga - Rovers & Associates - Michael Werner 5900 Hollis St. Ste. A, Emeryville, CA 94608	**Phone:**	510-420-0700
Property Owner:	Mark Borsuk 1626 Vallejo St., San Francisco, CA 94123	**Phone:**	415-922-4740
Client:	** same as Property Owner **		

Total Due: $575.00
Receipt Number: WR2009-0150 **Total Amount Paid:** $575.00
Payer Name : Conestoga Rovers & Associates Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 1 Wells
Driller: Vironex - Lic #: 123456 - Method: Hand **Work Total: $345.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0312	04/23/2009	08/02/2009	MW-7 cancelled	8.00 in.	2.00 in.	13.00 ft	25.00 ft

Specific Work Permit Conditions

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

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appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

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9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

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

Borehole(s) for Investigation-Geotechnical Study/CPT's - 10 Boreholes
Driller: Vironex (Gregg Drilling #485165) - Lic #: 123456 - Method: DP **Work Total: $230.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2009-0313	04/23/2009	08/02/2009	10	3.00 in.	50.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

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

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

NO FEE DOCUMENT PURSUANT
TO GOVERNMENT CODE SECTION 6103
recording requested by:

CITY OF OAKLAND

when recorded mail to:

City of Oakland
CEDA - Building Services
Dalziel Administration Building
250 Ogawa Plaza - 2nd Floor
Oakland, CA 94612
Attn: City Engineer

---------- *space above for Recorder's use only* ----------

INDENTURE AGREEMENT

Address 1434 Harrison Street **permit no.** ENMI 09058

parcel no. 008 -0626-023-00 **authorities** Municipal Code Section 12.08.080

description Allow nine (9) monitoring wells in public right-of-way; six (6) on Harrison Street, two (2) on 15th Street and one (1) on Alice Street

RECITAL

The owner subscribed below of fee simple interest in the property referenced above and described in Exhibit B attached hereto, is hereby granted, for an indeterminate period of time, the revocable permit referenced above allowing the temporary encroachment described above and delineated in Exhibit C, attached hereto, and limiting the use, exercise, and operation of the encroachment with the requirements and restrictions set forth in Exhibit A, attached hereto, and the associated permit. The owner agrees by and between themselves to be bound by the general and special conditions in Exhibit A and to comply with these conditions faithfully and fully at all times. The conditions of this agreement and associated permit shall equally bind all agents, heirs, successors, and assigns of the owner.

ACKNOWLEDGEMENT OF PROPERTY OWNER

(notarization of signature required)

Sidney Borsuk and Barbara Jean Borsuk, Trustees of the 1993 Borsuk Family Trust dated August 3, 1993

Sheila Siegel, Trustee of The Sheila Siegel Trust dated January 16, 2003

-- signatures on next page --

ATTACHMENTS

Exhibit **A** - Conditions of encroachment
Exhibit **B** - Description of privately owned parcel
Exhibit **C** - Limits of encroachment

CITY OF OAKLAND
a municipal corporation

WALTER S. COHEN
Director

by _____ **date** _____
RAYMOND M. DERANIA
City Engineer
Community and Economic Development Agency

ACKNOWLEDGEMENT OF PROPERTY OWNER

(Notarization of signature required)

Sidney Borsuk and Barbara Jean Borsuk, Trustees of the 1993 Borsuk Family Trust dated August 3, 1993

Signature _____ Date _____

Sidney Borsuk, Trustee
deceased ref: 2009200561

Signature Barbara Jean Borsuk Trustee Date 7-13-09

Barbara Jean Borsuk, Trustee

Sheila Siegel, Trustee of The Sheila Siegel Trust dated January 16, 2003

Signature Sheila Siegel, Trustee Date 7-13-09

Sheila Siegel, Trustee

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Alameda

On July 13, 2009 (Date) before me, CHARLES D. DEWITT, NOTARY Public (Here Insert Name and Title of the Officer),

personally appeared BARBARA JEAN BORSUK and SHEILA SIEGEL (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Charles D. Dewitt (Signature of Notary Public)

CHARLES D. DEWITT
Commission # 1778934
Notary Public — California
Alameda County
My Comm. Expires Nov 16, 2011

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: ACKNOWLEDGMENT OF PROPERTY OWNER RE: INDENTURE AGREEMENT

Document Date: 7-13-09 Number of Pages: 8

Signer(s) Other Than Named Above: Sidney Borsuk

Capacity(ies) Claimed by Signer(s)

Signer's Name: Barbara Jean Borsuk

- ☐ Individual
- ☐ Corporate Officer — Title(s): _____
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☑ Trustee
- ☐ Guardian or Conservator
- ☐ Other: _____

Signer Is Representing: The 1993 Borsuk Family Trust dated Aug. 3, 1993

RIGHT THUMBPRINT OF SIGNER — Top of thumb here

Signer's Name: Sheila Siegel

- ☐ Individual
- ☐ Corporate Officer — Title(s): _____
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☑ Trustee
- ☐ Guardian or Conservator
- ☐ Other: _____

Signer Is Representing: The Sheila Siegel Trust dtd JAN 16, 2003

RIGHT THUMBPRINT OF SIGNER — Top of thumb here

EXHIBIT A

Conditions For An Encroachment In The Public Right-Of-Way

address 1434 Harrison Street **parcel no.** 008 -0626-023-00

permittee SIEGEL SHEILA TRUST, ET AL **permit no.** ENMI 09058

- **General conditions of the encroachment**

1. This agreement may be voided and the associated permit for an encroachment may be revoked at any time and for any reason, at the sole discretion of the City Administrator or his or her designee, or the associated permit may be suspended at any time, at the sole discretion of the City Engineer, upon failure of the permittee to comply fully and continuously with each and all of the general and special conditions set forth herein and in the associated permit.

2. The property owner and permittee hereby disclaim any right, title, or interest in or to any portion of the public right-of-way, including the sidewalk and street, and agree that the encroachment is granted for indeterminate period of time and that the use and occupancy by the permittee of the public right-of-way is temporary and does not constitute an abandonment, whether expressed or implied, by the City of Oakland of any of its rights associated with the statutory and customary purpose and use of and operations in the public right-of-way.

3. The permittee agrees to indemnify and save harmless the City of Oakland, its officers, agents, employees, and volunteers, and each of them, from any suits, claims, or actions brought by any person or persons, corporations, or other entities for on account of any bodily injury, disease, or illness, including death, damage to property, real or personal, or damages of any nature, however caused, and regardless of responsibility for negligence, arising in any manner out of the construction of or installation of a private improvement itself or sustained as result of its construction or installation or resulting from the permittees' failure to maintain, repair, remove and/or reconstruct the private improvement.

4. The permittee shall maintain fully in force and effect at all times that the encroachment occupies the public right-of-way good and sufficient public liability insurance in a face amount not less than $300,000.00 for each occurrence, and property damage insurance in a face amount not less than $50,000.00 for each occurrence, both including contractual liability, insuring the City of Oakland, its officers, agents, employees, and volunteers against any and all claims arising out of the existence of the encroachment in the public right-of-way, as respects liabilities assume under this permit, and that a certificate of such insurance and subsequent notices of the renewal thereof, shall be filed with the City Engineer of the City of Oakland, and that such certificate shall state that the insurance coverage shall not be canceled or be permitted to lapse without thirty calendar (30) days written notice to the City Engineer. The permittee also agree that the City of Oakland may review the type and amount of insurance required of the permittee annually and may require the permittee to increase the amount of and/or change the type of insurance overage required.

5. The permittee shall be solely and fully liable and responsible for the repair, replacement, removal, reconstruction, and maintenance of any portion or all of the private improvements constructed or installed in the public right-of-way, whether by the cause, neglect, or negligence of the permittee or others and for the associated costs and expenses necessary to restore or remove the encroachment to the satisfaction of the City Engineer and shall not allow the encroachment to become a blight or a menace or a hazard to the health and safety of the general public.

6. The permittee acknowledge and agree that the encroachment is out of the ordinary and does not comply with City of Oakland standard installations. The permittee further acknowledge and agree that the City of Oakland and public utility agencies will periodically conduct work in the public right-of-way, including excavation, trenching, and relocation of its facilities, all of which may damage the encroachment. Permittee further acknowledge and agree that the City and public utility agencies take no responsibility for repair or replacement of the encroachment which may be damaged by the City or its contractors or public utility agencies or their contractors. Permittee further acknowledge and agree that upon notification by and to the satisfaction of the City Engineer, permittee shall immediately repair, replace, or remove, at the sole expense of the permittee, all damages to the encroachment that are directly or indirectly attributable to work by the City or its contractors or public utility agencies or their contractors.

7. Permittee shall remain liable for and shall immediately reimburse the City of Oakland for all costs, fee assessments, penalties, and accruing interest associated with the City's notification and subsequent abatement action for required maintenance, repairs, or removal, whether in whole or in part, of the encroachment or of damaged City infrastructure made necessary by the failure, whether direct or indirect, of the permittee to monitor the encroachment effectively and accomplish preventative, remedial, or restorative work expeditiously. The City reserves the unqualified right to collect all monies unpaid through any combination of available statutory remedies, including recordation of Prospective Liens and Priority Liens/ Special Assessments with the Alameda County Recorder, inclusion of non-reimbursed amounts by the Alameda County Assessor with the annual assessment of the general levy, and awards of judgments by a court of competent jurisdiction.

8. Upon revocation of the encroachment permit, permittee shall immediately, completely, and permanently remove the encroachment from the public right-of-way and restore the public right-of-way to its original conditions existing before the construction or installation of the encroachment, to the satisfaction of the City Engineer and all at the sole expense of the permittee.

9. This agreement and the associated permit for an encroachment shall become effective upon filing of this agreement with the Alameda County Recorder for recordation as an encumbrance of the property and its title.

- **Special conditions of the encroachment**

10. That said permittee shall obtain excavation permit(s) prior to construction and separate excavation permit(s) prior to the removal of the monitoring well.

11. That said permittee shall provide to the City of Oakland an AS BUILT plan showing the actual location of the monitoring well. And the results of all data collected from the monitoring well.

12. That said permittee shall remove the monitoring well and repair any damage to the street area in accordance with City standards two (2) years after construction or as soon as monitoring is complete.

13. That said permittee shall notify the Community & Economic Development Agency, Building Services Division after the monitoring well is removed and the street area restored to initiate the procedure to rescind the minor encroachment permit.

14. That the monitoring well cover installed within the sidewalk area shall have a skid-proof surface.

15. That the monitoring well casting and cover shall be iron and shall meet H-20 load rating. The cover

shall be secured with a minimum of two stainless steel bolts. Bolts and cover shall be mounted flush with the surrounding surface. For sidewalk installations, a pre-cast concrete utility box and non-skid cover may be needed in conjunction with the bolted cast iron cover with City approval.

16. That said permittee acknowledges that the City makes no representations or warranties as to the conditions beneath said encroachment. By accepting this revocable permit, permittee agrees that it will use the encroachment area at its own risk, is responsible for the proper coordination of its activities with all other permittee, underground utilities, contractors, or workmen operating, within the encroachment area and for the safety of itself and any of its personnel in connection with its entry under this revocable permit.

17. That said permittee acknowledges that the City is unaware of the existence of any hazardous substances beneath the encroachment area, and permittee hereby waives and fully releases and forever discharges the City and its officers, directors, employees, agents, servants, representatives, assigns and successors from any and all claims, demands, liabilities, damages, actions, causes of action, penalties, fines, liens, judgments, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs), whether direct or indirect, known or unknown, foreseen or unforeseen, that may arise out of or in any way connected with the physical condition or required remediation of the excavation area of any law or regulation applicable thereto, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Sections 9601 et seq.), the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 466 et seq.), the Safe Drinking Water Act (14 U.S.C. Sections 1401, 1450), the Hazardous Waste Control Law (California Health and Safety Code Sections 25100 et seq.), the Porter-Cologne Water Quality Control Act (California Health and Safety Code Section 13000 et seq.), the Hazardous Substance Account Act (California Health and Safety Code Sections 253000 et seq.), and the Safe Drinking Water and Toxic Enforcement Act (California Health and Safety Code Section 25249.5 et seq.).

18. That said permittee further acknowledges that it understands and agrees that it hereby expressly waives all rights and benefits which it now has or in the future may have, under and by virtue of the terms of California Civil Code Section 1542, which reads as follows: "A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM MUST HAVE MATERIALLY AFFECTED HIS SETTLEMENT WITH THE DEBTOR."

19. That said permittee recognizes that by waiving the provisions of this section, permittee will not be able to make any claims for damages that may exist, and to which, if known, would materially affect its decision to agree to these encroachment terms and conditions, regardless of whether permittee's lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause.

20. (a) That said permittee, by the acceptance of this revocable permit, agrees and promises to indemnify, defend, and hold harmless the City of Oakland, its officers, agents, and employees, to the maximum extent permitted by law, from any and all claims, demands, liabilities damages, actions, causes of action, penalties, fines, liens, judgments, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs; collectively referred to as "claims", whether direct or indirect, known or unknown, foreseen or unforeseen, to the extent that such claims were either (1) caused by the permittee, its agents, employees, contractors or representatives, or, (2) in the case of environmental contamination, the claim is a result of environmental contamination that emanates or emanated from 1434 Harrison Street, Oakland, California site, or was otherwise caused by the permittee, its agents, employees, contractors or representatives.

(b) That, if any contamination is discovered below or in the immediate vicinity of the encroachment, and the contaminants found are of the type used, housed, stored, processed or sold on or from 1434 Harrison Street, Oakland, California site, such shall amount to a rebuttable presumption that the contamination below, or in the immediate vicinity of, the encroachment was caused by the permittee, its agents, employees, contractors or representatives.

(c) That said permittee shall comply with all applicable federal, state, county and local laws, rules, and regulations governing the installation, maintenance, operation and abatement of the encroachment.

21. That said Minor Encroachment Permit and Agreement shall take effect when all the conditions hereinabove set forth shall have been complied with to the satisfaction of the City Engineer, and shall become null and void upon the failure of the permittee to comply with all conditions.

22. The City, at it sole discretion and at future date not yet determined, may impose additional and continuing fees as prescribed in the Master Fee Schedule for use and occupancy of the public right-of-way.

EXHIBIT B

Description Of the Private Property Abutting The Encroachment

address 1434 Harrison Street **parcel no.** 008 -0626-023-00

deed no. 2003381544 **recorded** June 30, 2003

BEGINNING at a point on the Eastern line of Harrison Street, distant thereon 714 feet Northerly from the point of intersection thereof with the Northern line of 12th Street, as said streets are shown on the map hereinafter referred to; running thence Northerly along said line of Harrison Street 60 feet; thence Easterly parallel with said line of 12th Street, 150 feet; thence Southerly parallel with said line of Harrison Street 60 feet; and thence Westerly parallel with said line of 12th Street 150 feet to the point of beginning.

BEING a portion of Lot 4, as said lot is delineated and so designated upon that certain map entitled, "Map of Alice Park Property, Oakland," filed February 26, 1868, in Book 3 of Maps, at page 7, in the office of the County Recorder of Alameda County.

A more legible copy is available for viewing at the Office of the City Engineer, City of Oakland 250 Frank Ogawa Plaza 2nd floor.

EXHIBIT C

Limits Of The Encroachment In The Public Right-Of-Way

address 1434 Harrison Street

parcel no. 008 -0626-023-00

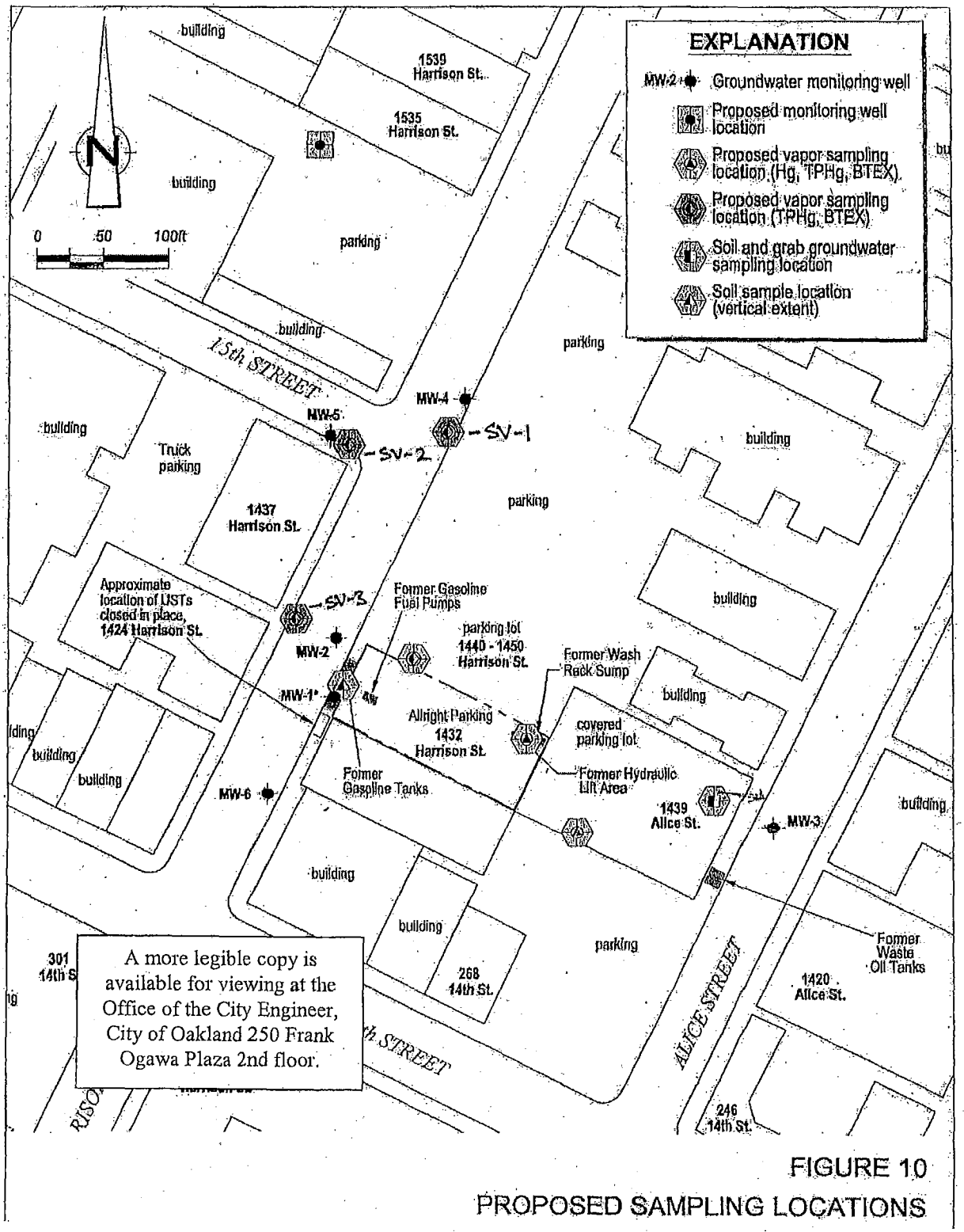

FIGURE 1.0

PROPOSED SAMPLING LOCATIONS

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# X0900944 Job Site 1434 HARRISON ST Parcel# 008-0626-023-00

Descr permit to o excavation with boring no excavation without c42 licence Permit Issued 07/20/09

Work Type EXCAVATION-PRIVATE P

JOB SITE

USA # Util Co. Job # Acctg#:
Util Fund #:

Applcnt Phone# Lic# --License Classes--

Owner SIEGEL SHEILA TR & BORSUK SIDN
Contractor
Arch/Engr GREGG DRILLING & TESTING, INC. X (925)313-5800 485165
Agent MIKE WERNER
Applic Addr 950 HOWE RD, MARTINEZ, CA., 94553

$433.18 TOTAL FEES PAID AT ISSUANCE

$68.50 Applic	$309.00 Permit
$.00 Process	$35.86 Rec Mgmt
$.00 Gen Plan	$.00 Invstg
$.00 Other	$19.82 Tech Enh

Permit Issued By _____ Date: 7.21.09

Finaled By _____ Date: _____

ADDRESS

DIST.

CITY OF OAKLAND

PAID
7/20/09 mh

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Project Address: 1434 HARRISON ST

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

Construction Lending Agency Declaration
I hereby affirm under penalty of perjury that there is a construction-lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code. N/A under Lender implies No Lending Agency.

Lender_____ Address_____

Workers' Compensation Declaration

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

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

[ ] I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

CARRIER:_____POLICY NO._____

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

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

Hazardous Materials Declaration

I hereby affirm that the intended occupancy [ ] WILL [ ] WILL NOT use, handle or store any hazardous or acutely hazardous materials. (Checking "WILL" acknowledges that Sections 25505, 25533, & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document, that the above information is correct, and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.

_____ _____ _____
PRINT NAME Signature [ ] Contractor, or [ ] Agent Date

ADDRESS

DIST.

CITY OF OAKLAND

Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERINC

Permit valid for 90 days from date of issuance.

PERMIT NUMBER	SITE ADDRESS/LOCATION
X 0 9 0 0944 *	1434 Harrison St
APPROX. START DATE / APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS: 493165	CITY BUSINESS TAX #

ATTENTION:

1- State law requires that the contractor/owner call Underground Service Alert (USA) two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1-800-642-2444. Underground Service Alert (USA) # _____

2- 48 hours prior to starting work, you MUST CALL (510) 238-3651 to schedule an inspection.

3- 48 hours prior to re-paving, a compaction certificate is required (waived for approved slurry backfill).

OWNER/BUILDER

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

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

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

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

☐ I am exempt under Sec. _____, B&PC for this reason _____

WORKER'S COMPENSATION

☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # _____ Company Name _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

Signature of Permittee ☐ Agent for ☐ Contractor ☐ Owner — Date: 7-20-09

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☐ NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☐ YES ☐ NO	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) ☐ YES ☐ NO
ISSUED BY		DATE ISSUED: 7-20-09	

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# X0900943 Job Site 1434 HARRISON ST Parcel# 008 -0626-023-00

Descr Soil boring on Harrison St Permit Issued 07/20/09
Allow three wells: 2 on Harrison; 1 on 15th St

Work Type EXCAVATION-PRIVATE P

USA # Util Co. Job # Acctg#:
Util Fund #:

JOB SITE

	Applcnt	Phone#	Lic#	--License Classes--
Owner SIEGEL SHEILA TR & BORSUK SIDN				
Contractor GREGG DRILLING & TESTING, INC.	X	(925)313-5800	485165	C57
Arch/Engr				
Agent CRA/M WERNER		(510)420-3358		
Applic Addr 950 HOWE RD, MARTINEZ, CA, 94553				

$433.18 TOTAL FEES PAID AT ISSUANCE

$68.50 Applic	$309.00 Permit
$.00 Process	$35.86 Rec Mgmt
$.00 Gen Plan	$.00 Invstg
$.00 Other	$19.82 Tech Enh

Permit Issued By: _____ Date: 7.21.09

Finaled By: _____ Date: _____

ADDRESS

DIST

CITY OF OAKLAND

PAID
7/20/09 mh

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Project Address: 1434 HARRISON ST

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

Construction Lending Agency Declaration
I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code. N/A under Lender implies No Lending Agency.

Lender_____ Address_____

Workers' Compensation Declaration

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

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

[ ] I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

CARRIER:_____ POLICY NO._____

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

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS, IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3707 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

Hazardous Materials Declaration

I hereby affirm that the intended occupancy [ ] WILL [ ] WILL NOT use, handle or store any hazardous or acutely hazardous materials. (Checking "WILL" acknowledges that Sections 25505, 25533 & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.

PRINT NAME Signature [ ] Contractor, or [ ] Agent Date

ADDRESS

CITY OF OAKLAND

CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

PAGE 2 of 2

Permit valid for 90 days from date of issuance.

PERMIT NUMBER	SITE ADDRESS/LOCATION
X090 943	1434 HARRISON

APPROX. START DATE	APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)

CONTRACTOR'S LICENSE # AND CLASS	CITY BUSINESS TAX #
485165	

ATTENTION:

1- State law requires that the contractor/owner call Underground Service Alert (USA) two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1-800-642-2444. Underground Service Alert (USA) # _____

2- 48 hours prior to starting work, you MUST CALL (510) 238-3651 to schedule an inspection.

3- 48 hours prior to re-paving, a compaction certificate is required (waived for approved slurry backfill).

WNER/BUILDER

ereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to nstruct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the ovisions of the Contractor's License law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the aged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

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

I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two uctures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

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

I am exempt under Sec. _____, B&PC for this reason _____

ORKER'S COMPENSATION

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

icy # _____ *Company Name* _____

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws California (not required for work valued at one hundred dollars ($100) or less).

TICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith ply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is ted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to orm the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property ined or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This it is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

eby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read permit and agree to its requirements, and that the above information is true and correct under penalty of law.

Mill Hou 7-20-09

ture of Permittee ☐ Agent for ☐ Contractor ☐ Owner Date

STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☐ NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☐ YES ☐ NO	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) ☐ YES ☐ NO
ED BY		DATE ISSUED	7-20-09

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

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Appl# OB090502 Job Site 1434 HARRISON ST Parcel# 008 0626-023-00

permit to block parking lane no blocking sidewalk or traffic lane

Permit Issued 07/20/09

Nbr of days: 1 Nbr of Meters 3
Effective: 08/25/09 Expiration: 08/25/09

JOB SITE

SHORT TERM METERED

	Applcnt	Phone#	Lic#	<-License Classes->
Owner SIEGEL SHEILA TR & BORSUK SIDN				
Contractor				
Arch/Engr VIRONEX INC		X (510)568-7676	705927	
Agent MIKE WERNER				
Applic Addr 2110 ADAMS AVE, SAN LEANDRO, CA, 94577				

$193.93 TOTAL FEES PAID AT ISSUANCE

$68.50 Applic	$100.50 Permit
$.00 Process	$16.06 Rec Mgmt
$.00 Gen Plan	$.00 Invstg
$.00 Other	$8.87 Tech Enh

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

ADDRESS

Applicant: Mike Werner 7/20/09

Issued by: [signature] 7.20.09

DIST

CITY OF OAKLAND

PAID
7/20/09 mh

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# OB090501 Job Site 1434 HARRISON ST Parcel# 008 -0626-023-00

Block traffic lane per TSD09-0017 and reserve meter HA1400-2 Permit Issued 07/20/09
on separate permit. Soil boring on Harrison St.
Allow three wells: 2 on Harrison; 1 on 15th St

Nbr of days: 2 Linear feet: 200
Effective: 08/25/09 Expiration: 08/26/09

SHORT TERM NON METERED

Applcnt Phone# Lic# --License Classes--
Owner SIEGEL SHEILA TR & BORSUK SIDNEY X
Contractor VIRONEX INC (510)568-7676 705927 C57
Arch/Engr
Agent CRA/M WERNER (510)420-3358
Applic Addr 2110 ADAMS AVE, SAN LEANDRO, CA, 94577

$386.14 TOTAL FEES PAID AT FILING $.00 TOTAL FEES PAID AT ISSUANCE
$68.50 Applic $268.00 Permit
$.00 Process $31.97 Rec Mgmt
$.00 Gen Plan $.00 Invstg
$.00 Other $17.67 Tech Enh

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

Applicant: 7-20-09

Issued by: 7-20-09

CITY OF OAKLAND

PAID
7/20/09

ADDRESS

DIST

CITY OF OAKLAND

Community Economic Development Agency • 250 Frank H. Ogawa Plaza • Suite 4344 • Oakland, California 94612-2033
Transportation Services Division
Office (510) 238-3466
FAX (510) 238-7415
TDD (510) 839-6451

Traffic Engineering Services Analysis Fee Invoice

Date: February 18, 2009

TSD Invoice # : 09-0017

To: Bryan Fong
Company: Conestoga - Rovers & Associates
Address: 5900 Hollis Street, Suite A
Phone: 510-420-3369

Created/Received By: Joe Watson

Location	Description of Work	Project Name / Permit #	# of Hours *
Harrison Street between 14th and 15th Street	Lane Closure		1
		Total Hours	**1**
		TSD Service Rate	**$ 123.00**
		Total Fee	**$ 123.00**

* - minimum 1 hour service

FOR CITY USE ONLY	
Cost Center No.	W659
Organization No.	88363
Account No.	45119
Fund No.	1750

Cc: Rosalie

P:\Traffic\obstruction_permit\Walk-Ins Invoices\2004\TSD-09-0017.xls

SPECIAL PROVISION 7-10.1 TRAFFIC REQUIREMENTS

Project Name: _____
Project Number: TSD-09-0017
Reviewed By: J.Watson
Date: 3/5/2009
Permit good from 8/24/2009
to 8/26/2009

REVISED 7/20/09

ADD NEW SUBSECTION TO READ:
SP 7-10.1.4 Vehicular Traffic

Attention is directed to Section 7-10. Public Convenience and Safety, of the City of Oakland Standard Specification for Public Works Construction, 2000 Edition (Include this paragraph for p-jobs, excavation permits or obstruction permits).

The Contractor shall conduct its work in such a manner as to provide public convenience and safety and according to the provisions in this subsection. The provisions shall not be modified or altered without written approval from the Engineer.

Standard traffic control devices shall be placed at the construction zone according to the latest edition of the Work Area Traffic Control Handbook or Manual on Uniform Traffic Control Devices (MUTCD), Chapter 6 – "Traffic Controls for Construction and Maintenance Work Zone," or as directed by the Engineer.

All trenches and excavations in any public street or roadway shall be back filled and opened to traffic, or covered with suitable steel plates securely placed and opened to traffic at all times except during actual construction operations unless otherwise permitted by the Engineer.

Each section of work shall be completed or temporarily paved and open to traffic in not more than 5 days after commencing work unless otherwise permitted in writing by the Engineer.

Where construction encroaches into the sidewalk area, a minimum of 5 ½ feet of unobstructed sidewalk shall be maintained at all times for pedestrian use. Pedestrian barricades, shelter, and detour signs per Caltrans standards may be required.

The contractor shall conduct its operation in such a manner as to leave the following traffic lanes unobstructed and in a condition satisfactory for vehicular travel during the Obstruction Period. At all times traffic lanes will be restricted and reopened to travel. Emergency access shall be provided at all times.

Street Name Limits	Obstruction Period	North Bound	South Bound	East Bound	West Bound
Harrison Street between 14th Street and 15th Street	Mon. – Fri. 9am – 4pm	1-12' lane open minimum	N/A	N/A	N/A

The Contractor Shall Also Include all check item:

1. ☐ Design a construction traffic control plan and submit (2) copies to the Engineer for approval prior to starting any work.
2. ☒ Replace all signs, pavement markings, and traffic detector loops damaged or removed due to construction within 3 days of completion of work or the final pavement lift.
3. ☒ Provide advance notice to Oakland Police at (510) 777-3333 (24-hrs) and Oakland Fire at (510) 238-3331 (2-rhs) when a single lane of traffic or less is provided on any street.
4. ☒ Provide 72-hour advance notice to AC Transit at (510) 891-4909 when affecting a bus stop.
5. ☒ For Caltrans roadways, ramps, or maintained facilities, the Contractor shall obtain appropriate permits and notify the Traffic Management Center 24 hours in advance of any work.
6. ☐ Flagger control is required. Certified Flagger is required.
7. ☐ Pedestrian walkway by K-rail, Canopy or Plywood is required. (See detour plan)
8. ☒ Pedestrian traffic shall be maintained and guided through the project at all times.
9. ☒ Provide advance notice to Business and Residence within 72-hours.
10. ☒ Allow all traffic movement at intersection.

Nothing specified herein shall prohibit emergency work and/or repair necessary to ensure public health and safety.

SPECIAL PROVISION 7-10.1 TRAFFIC REQUIREMENTS

REVISED 5/19/2009

REVISED

Project Name: _____
Project Number: TSD-09-00[illegible]
Reviewed By: J.Watson
Date: 3/5/2009
Permit good from 6/1/2009
to 6/30/2009

ADD NEW SUBSECTION TO READ:
SP 7-10.1.4 Vehicular Traffic

Attention is directed to Section 7-10. Public Convenience and Safety, of the City of Oakland Standard Specification for Public Works Construction, 2000 Edition (Include this paragraph for p-jobs, excavation permits or obstruction permits).

The Contractor shall conduct its work in such a manner as to provide public convenience and safety and according to the provisions in this subsection. The provisions shall not be modified or altered without written approval from the Engineer.

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Where construction encroaches into the sidewalk area, a minimum of 5 ½ feet of unobstructed sidewalk shall be maintained at all times for pedestrian use. Pedestrian barricades, shelter, and detour signs per Caltrans standards may be required.

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The Contractor Shall Also include all check item:

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2. ☒ Replace all signs, pavement markings, and traffic detector loops damaged or removed due to construction within 3 days of completion of work or the final pavement lift.
3. ☒ Provide advance notice to Oakland Police at (510) 777-3333 (24-hrs) and Oakland Fire at (510) 238-3331 (2-rhs) when a single lane of traffic or less is provided on any street.
4. ☒ Provide 72-hour advance notice to AC Transit at (510) 891-4909 when affecting a bus stop.
5. ☒ For Caltrans roadways, ramps, or maintained facilities, the Contractor shall obtain appropriate permits and notify the Traffic Management Center 24 hours in advance of any work.
6. ☐ Flagger control is required. Certified Flagger is required.
7. ☐ Pedestrian walkway by K-rail, Canopy or Plywood is required. (See detour plan)
8. ☒ Pedestrian traffic shall be maintained and guided through the project at all times.
9. ☒ Provide advance notice to Business and Residence within 72-hours.
10. ☒ Allow all traffic movement at intersection.

Nothing specified herein shall prohibit emergency work and/or repair necessary to ensure public health and safety.

CITY OF OAKLAND

Community Economic Development Agency • 250 Frank H. Ogawa Plaza • Suite 4344 • Oakland, California 94612-2033
Transportation Services Division
Office (510) 238-3466
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Traffic Engineering Services Analysis Fee Invoice

Date: February 18, 2009

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To: Bryan Fong
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Address: 5900 Hollis Street, Suite A
Phone: 510-420-3369

Created/Received By: Joe Watson

Location	Description of Work	Project Name / Permit #	# of Hours *
Harrison Street between 14th and 15th Street	Lane Closure		1

Total Hours	1
TSD Service Rate	$ 123.00
Total Fee	$ 123.00

* - minimum 1 hour service

FOR CITY USE ONLY	
Cost Center No.	W659
Organization No.	88363
Account No.	45119
Fund No.	1750

Cc: Rosalie

APPLICATION FOR TRAFFIC CONTROL PLAN

Transportation Services Fee: $400/hour
(Check or Money Order Only)

City of Oakland

RECEIVED
CEDA
TRANSPORTATION SERVICES
09 FEB -9 PM 4:29

Community & Economic Development Agency
Transportation Services Division

Check the box that apply:
- ☒ New Application (Utility, Excavation)
- ☐ Renewal Application
- ☐ New Development w/ Mgmt Plan
- ☐ City of Oakland Project

Michael Wheaver
9/28/09 9/29/09

Please Read the Following Statements Below:

1. Processing time for a Traffic Control Application is a **minimum of 10 business days**.
2. Traffic Control review is scheduled **only** on **Tuesdays** and **Thursdays from 8:30am thru 11:30am by appointment only.**
3. A scheduled **appointment** by phone or email with a TSD staff member is necessary to discuss any and all traffic control application and plans.
4. Please **call ahead** to confirm that the traffic control application is ready for pickup @ 510-238-3467.
5. Businesses and residences adjacent to the work area must be provided **72 hour advance notice.**
6. **A completed** traffic control application may be faxed to (510) 238-7415.
7. **Incomplete** traffic control applications will not be processed and returned to applicant immediately.
8. The initial approval for a traffic control plan is 1 month, the renewal submittal may be approved up to 3 months.
9. The traffic control provision dates cannot be changed or extended if work has already commenced.
10. After receiving TSD approval of the traffic control application, contractor shall proceed to the Permit Center to obtain an obstruction permit. **"Obstruction**

510 420 3369

Contact Person: Bryan Fong Phone: 510-420-3369

Name of Company: Conestoga-Rovers & Associates Fax: 510-420-9170

Address of Company: 5900 Hollis St., Suite A, Emeryville

Describe type of work to be performed: Soil boring investigation. Soil boring will be advanced by direct push drilling

Location of work: Harrison St. Between* 14th And* 15th

Work date (s): TBD ☒ Mon-Fri ☐ Sat-Sun Work Hours: 8:30 to 17:00 9AM - 4pm

Please Follow these Steps in Order to Complete a Traffic Control Plan:

A. **Drawing Area:** The full width of all streets adjacent to the site MUST be included in the drawing. Include the entire block in which your work is located for every street that is adjacent to your site.

B. **Include Street Names, Direction of Traffic on the Street, and North Arrow**

C. **Show Existing Number of Lanes in all Directions** (with any pavement arrows)

D. **Check the Box(s) that Apply:** All checked items **MUST** be shown on the drawing

- ☒ Lane Closure
- ☐ Street Closures **(must provide detour plan)**
- ☐ Use of Median
- ☒ Use Parking Lane
- ☐ Sidewalk Closure **(must provide pedestrian walk way)**

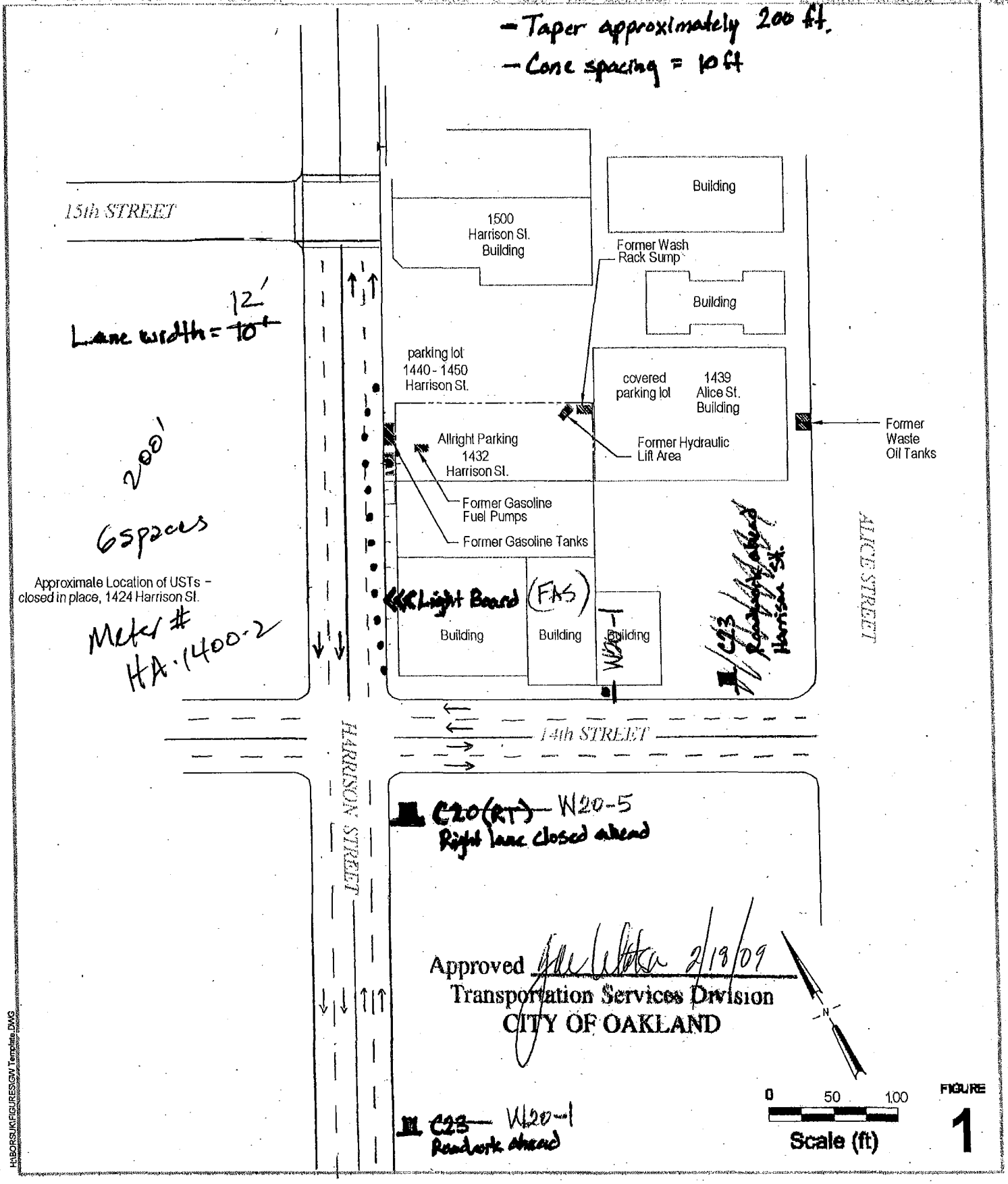
E. **Show All Dimensions** of street widths (curb to curb), lane widths, sidewalk widths, and work area dimension. **(Note: Traffic Control Application / Plans missing the above information will not be accepted or processed.)**

F. **Show the Name and Locations** of all advanced warning devices, flaggers, delineators, warning and construction signs to be used.

RENEWAL PROCESS: Resubmit a completed Traffic Control Application with the old approved plan (with the necessary modifications / changes to the plans).

FOR HELP in preparing a traffic control plan, see Temporary Traffic Control Pocket Reference Guide 2007, Work Area Traffic Control Handbook 2006, or the California Manual on Uniform Traffic Control (MUTCD) 2003, Chapter 6.
http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm
For City website: http://www.oaklandpw.com/Page548.aspx

* Name the streets that are the boundaries of your work area.



H:\BOR\SU\KF\FIGURES\GW Template.DWG

Allright Parking

1432 Harrison Street

Oakland, California

Traffic Control Plan

CONESTOGA-ROVERS & ASSOCIATES
5900 Hollis St., Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

TRANSMITTAL

DATE: 10/19/2009 REFERENCE NO.: 540188

PROJECT NAME: Borsuk

TO: Alameda County Publics Works Agency
Attn: James Yoo
399 Elmhurst Street
Hayward, CA 94544

Please find enclosed:
- ☐ Draft
- ☒ Originals
- ☐ Prints
- ☐ Final
- ☐ Other

Sent via:
- ☒ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☐ Other

QUANTITY	DESCRIPTION
6	Well Completion Report (SV-3 through SV-8)

- ☐ As Requested
- ☒ For Your Use
- ☐ For Review and Comment
- ☐
- ☐

COMMENTS:
Hello James

Re: Well Completion Report (SV-3 through SV-8)

Enclosed are the Well Completion Reports for Soil Vapor Well SV-3 through SV-8 installed on and near site address 1432 Harrison St, Oakland, California. The soil gas wells were installed under Alameda County Public Works Agency Permit W2009-0313.

If you have any questions, please feel free to contact me.

CONESTOGA-ROVERS
& ASSOCIATES

P.O. Box 1264, Station 'A', 29 George Street,
Suite 102, Sydney, Nova Scotia, Canada B1P 6J9
Telephone: (902) 564-3313 Fax: (902) 564-4681
www.CRAworld.com

Thank you,
Bryan Fong
Conestoga-Rovers & Associates - 510-420-3369

Copy to: _____

Completed by: Bryan Fong Signed: _____
[Please Print]

Filing: Correspondence File

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

APPENDIX F

ANALYTICAL LABORATORY REPORT

Air Toxics LTD.
Laboratory Services Since 1989

9/22/2009

Mr. Mark Jonas
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: Borsuk
Project #: 540188
Workorder #: 0909250B

Dear Mr. Mark Jonas

The following report includes the data for the above referenced project for sample(s) received on 9/11/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-3 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

WORK ORDER #: 0909250B

Work Order Summary

CLIENT:	Mr. Mark Jonas Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	**BILL TO:**	Mr. Mark Jonas Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
PHONE:	510-420-0700	**P.O. #**	40-4023397
FAX:	510-420-9170	**PROJECT #**	540188 Borsuk
DATE RECEIVED:	09/11/2009	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	09/22/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV-4	Modified TO-3	4.5 "Hg	15 psi
02A	SV-6	Modified TO-3	4.5 "Hg	15 psi
03A	SV-8	Modified TO-3	4.0 "Hg	15 psi
04A	SV-7	Modified TO-3	4.0 "Hg	15 psi
05A	SV-5	Modified TO-3	6.0 "Hg	15 psi
06A	SV-5-Duplicate	Modified TO-3	5.5 "Hg	15 psi
07A	SV-3	Modified TO-3	6.0 "Hg	15 psi
07AA	SV-3 Lab Duplicate	Modified TO-3	6.0 "Hg	15 psi
08A	Lab Blank	Modified TO-3	NA	NA
09A	LCS	Modified TO-3	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 09/22/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
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: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified TO-3
Conestoga-Rovers Associates (CRA)
Workorder# 0909250B

Seven 1 Liter Summa Canister (100% Certified) samples were received on September 11, 2009. The laboratory performed analysis for volatile organic compounds in air via modified EPA Method TO-3 using gas chromatography with flame ionization detection. The method involves concentrating up to 200 mL of sample. The concentrated aliquot is then dry purged to remove water vapor prior to entering the chromatographic system. The TPH (Gasoline Range) results are calculated using the response factor of Gasoline. A molecular weight of 100 is used to convert the TPH (Gasoline Range) ppmv result to ug/L.

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

Requirement	*TO-3*	*ATL Modifications*
Daily Calibration Standard Frequency	Prior to sample analysis and every 4 - 6 hrs	Prior to sample analysis and after the analytical batch </= 20 samples
Initial Calibration Calculation	4-point calibration using a linear regression model	5-point calibration using average Response Factor
Initial Calibration Frequency	Weekly	When daily calibration standard recovery is outside 75 - 125 %, or upon significant changes to procedure or instrumentation
Moisture Control	Nafion system	Sorbent system
Minimum Detection Limit (MDL)	Calculated using the equation DL = A+3.3S, where A is intercept of calibration line and S is the standard deviation of at least 3 reps of low level standard	40 CFR Pt. 136 App. B
Preparation of Standards	Levels achieved through dilution of gas mixture	Levels achieved through loading various volumes of the gas mixture

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.

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
MODIFIED EPA METHOD TO-3 GC/FID

Client Sample ID: SV-4

Lab ID#: 0909250B-01A

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.060	0.13	240	530

Client Sample ID: SV-6

Lab ID#: 0909250B-02A

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.060	0.46	240	1900

Client Sample ID: SV-8

Lab ID#: 0909250B-03A

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.058	0.11	240	460

Client Sample ID: SV-7

Lab ID#: 0909250B-04A

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.058	0.19	240	780

Client Sample ID: SV-5

Lab ID#: 0909250B-05A

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.063	0.30	260	1200

Client Sample ID: SV-5-Duplicate

Lab ID#: 0909250B-06A

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.062	0.24	250	990

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-3 GC/FID

Client Sample ID: SV-3

Lab ID#: 0909250B-07A

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.063	0.11	260	440

Client Sample ID: SV-3 Lab Duplicate

Lab ID#: 0909250B-07AA

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.063	0.10	260	410

Air TOXICS LTD.
Laboratory Services Since 1989

Client Sample ID: SV-4

Lab ID#: 0909250B-01A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d091512**	**Date of Collection:**	**9/8/09 7:45:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/15/09 02:49 PM**

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.060	0.13	240	530

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	102	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-6

Lab ID#: 0909250B-02A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d091513**	**Date of Collection:**	**9/8/09 9:36:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/15/09 03:22 PM**

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.060	0.46	240	1900

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	105	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-8

Lab ID#: 0909250B-03A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d091514**	**Date of Collection: 9/8/09 10:41:00 AM**	
Dil. Factor:	**2.33**	**Date of Analysis: 9/15/09 03:57 PM**	

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.058	0.11	240	460

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	104	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-7

Lab ID#: 0909250B-04A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d091515**	**Date of Collection:**	**9/8/09 11:40:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**9/15/09 04:34 PM**

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.058	0.19	240	780

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	104	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-5

Lab ID#: 0909250B-05A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d091516**	**Date of Collection: 9/8/09 12:50:00 PM**	
Dil. Factor:	**2.53**	**Date of Analysis: 9/15/09 05:08 PM**	

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.063	0.30	260	1200

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	103	75-150

Air Toxics LTD.
Laboratory Services Since 1980

Client Sample ID: SV-5-Duplicate

Lab ID#: 0909250B-06A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d091517**	**Date of Collection: 9/8/09 12:50:00 PM**	
Dil. Factor:	**2.47**	**Date of Analysis: 9/15/09 05:42 PM**	

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.062	0.24	250	990

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	103	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-3

Lab ID#: 0909250B-07A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d091518**	**Date of Collection: 9/8/09 1:37:00 PM**	
Dil. Factor:	**2.53**	**Date of Analysis: 9/15/09 06:28 PM**	

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.063	0.11	260	440

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	104	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-3 Lab Duplicate

Lab ID#: 0909250B-07AA

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d091519**	**Date of Collection:**	**9/8/09 1:37:00 PM**
Dil. Factor:	**2.53**	**Date of Analysis:**	**9/15/09 07:01 PM**

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.063	0.10	260	410

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	105	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0909250B-08A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	d091503	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 9/15/09 09:09 AM	

Compound	Rpt. Limit (ppmv)	Amount (ppmv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	0.025	Not Detected	100	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	104	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0909250B-09A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d091521**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/15/09 08:47 PM**	

Compound	%Recovery
TPH (Gasoline Range)	121

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	106	75-150

Air Toxics LTD.
Laboratory Services Since 1989

9/24/2009
Mr. Mark Jonas
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: Borsuk
Project #: 540188
Workorder #: 0909250A

Dear Mr. Mark Jonas

The following report includes the data for the above referenced project for sample(s) received on 9/11/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15/TICs 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 #: 0909250A

Work Order Summary

CLIENT:	Mr. Mark Jonas Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	**BILL TO:**	Mr. Mark Jonas Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
PHONE:	510-420-0700	**P.O. #**	40-4023397
FAX:	510-420-9170	**PROJECT #**	540188 Borsuk
DATE RECEIVED:	09/11/2009	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	09/24/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV-4	Modified TO-15/TICs	4.5 "Hg	15 psi
02A	SV-6	Modified TO-15/TICs	4.5 "Hg	15 psi
03A	SV-8	Modified TO-15/TICs	4.0 "Hg	15 psi
04A	SV-7	Modified TO-15/TICs	4.0 "Hg	15 psi
05A	SV-5	Modified TO-15/TICs	6.0 "Hg	15 psi
06A	SV-5-Duplicate	Modified TO-15/TICs	5.5 "Hg	15 psi
07A	SV-3	Modified TO-15/TICs	6.0 "Hg	15 psi
08A	Lab Blank	Modified TO-15/TICs	NA	NA
09A	CCV	Modified TO-15/TICs	NA	NA
10A	LCS	Modified TO-15/TICs	NA	NA

CERTIFIED BY: Linda J. Fruman DATE: 09/24/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
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: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified TO-15
Conestoga-Rovers Associates (CRA)
Workorder# 0909250A

Seven 1 Liter Summa Canister (100% Certified) samples were received on September 11, 2009. 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.

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

Requirement	*TO-15*	*ATL Modifications*
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Specific analytes that are requested by the client to be reported as tentatively identified compounds (TICs) are determined by searching for each compound's characteristic spectra. If no chromatographic peak displaying the compound specific spectra exists, then the TIC is reported as not detected. Please note that the laboratory has not evaluated the stability of any heretofore tentatively identified compound in the vapor phase or for efficiency of recovery through the analytical system.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: SV-4

Lab ID#: 0909250A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	1.3	3.8	4.2
Toluene	1.2	2.5	4.5	9.5
m,p-Xylene	1.2	2.8	5.2	12

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Propane, 2-methyl-	75-28-5	45%	27

Client Sample ID: SV-6

Lab ID#: 0909250A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	2.1	4.5	8.0
m,p-Xylene	1.2	3.5	5.2	15
o-Xylene	1.2	1.5	5.2	6.6

Client Sample ID: SV-8

Lab ID#: 0909250A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	4.7	8.1	11	19
Carbon Disulfide	1.2	30	3.6	95
Benzene	1.2	1.5	3.7	4.9
Toluene	1.2	5.4	4.4	20
Tetrachloroethene	1.2	4.8	7.9	32
m,p-Xylene	1.2	1.6	5.0	7.1

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Propane, 2-methyl-	75-28-5	9.0%	9.9
Butane	106-97-8	9.0%	5.1

Client Sample ID: SV-7

Lab ID#: 0909250A-04A

Air TOXICS LTD.
Laboratory Services Since 1989

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

Client Sample ID: SV-7

Lab ID#: 0909250A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	1.9	3.7	6.2
Toluene	1.2	10	4.4	39
m,p-Xylene	1.2	5.9	5.0	25
o-Xylene	1.2	2.7	5.0	12

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Propane, 2-methyl-	75-28-5	53%	57

Client Sample ID: SV-5

Lab ID#: 0909250A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.3	4.8	4.8	18
m,p-Xylene	1.3	2.0	5.5	8.7

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Propane, 2-methyl-	75-28-5	9.0%	7.7

Client Sample ID: SV-5-Duplicate

Lab ID#: 0909250A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	4.4	4.6	16
m,p-Xylene	1.2	1.5	5.4	6.4

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Propane, 2-methyl-	75-28-5	9.0%	7.7

Client Sample ID: SV-3

Lab ID#: 0909250A-07A

Air Toxics Ltd.
Laboratory Services Since 1989

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

Client Sample ID: SV-3

Lab ID#: 0909250A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.3	1.6	4.8	6.0
m,p-Xylene	1.3	1.3	5.5	5.8

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Butane	106-97-8	38%	7.4
Propane, 2-methyl-	75-28-5	9.0%	4.2

Air Toxics Ltd.
Laboratory Services Since 1989

Client Sample ID: SV-4

Lab ID#: 0909250A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092306**	**Date of Collection:**	**9/8/09 7:45:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/23/09 10:29 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	1.3	3.8	4.2
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
Toluene	1.2	2.5	4.5	9.5
m,p-Xylene	1.2	2.8	5.2	12
o-Xylene	1.2	Not Detected	5.2	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Butane	106-97-8	NA	Not Detected
Propane, 2-methyl-	75-28-5	45%	27
Propane	74-98-6	NA	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	93	70-130

Air TOXICS LTD.
Laboratory Services Since 1989

Client Sample ID: SV-6

Lab ID#: 0909250A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092307**	**Date of Collection:**	**9/8/09 9:36:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/23/09 11:16 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	Not Detected	3.8	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
Toluene	1.2	2.1	4.5	8.0
m,p-Xylene	1.2	3.5	5.2	15
o-Xylene	1.2	1.5	5.2	6.6

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Butane	106-97-8	NA	Not Detected
Isobutane	75-28-5	NA	Not Detected
Propane	74-98-6	NA	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-8

Lab ID#: 0909250A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092308**	**Date of Collection:**	**9/8/09 10:41:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**9/23/09 11:53 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	4.7	Not Detected	9.6	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	1.2	Not Detected	4.5	Not Detected
Chloroethane	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Ethanol	4.7	Not Detected	8.8	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	4.7	8.1	11	19
2-Propanol	4.7	Not Detected	11	Not Detected
Carbon Disulfide	1.2	30	3.6	95
3-Chloropropene	4.7	Not Detected	14	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
Benzene	1.2	1.5	3.7	4.9
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	5.4	4.4	20
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-8

Lab ID#: 0909250A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092308**	**Date of Collection:**	**9/8/09 10:41:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**9/23/09 11:53 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	4.8	7.9	32
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	1.6	5.0	7.1
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Propane, 2-methyl-	75-28-5	9.0%	9.9
Butane	106-97-8	9.0%	5.1
Propane	74-98-6	NA	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

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

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-7

Lab ID#: 0909250A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092309**	**Date of Collection:**	**9/8/09 11:40:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**9/23/09 12:29 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	1.9	3.7	6.2
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	10	4.4	39
m,p-Xylene	1.2	5.9	5.0	25
o-Xylene	1.2	2.7	5.0	12

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Butane	106-97-8	NA	Not Detected
Propane, 2-methyl-	75-28-5	53%	57
Propane	74-98-6	NA	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	92	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-5

Lab ID#: 0909250A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092310**	**Date of Collection: 9/8/09 12:50:00 PM**	
Dil. Factor:	**2.53**	**Date of Analysis: 9/23/09 01:05 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.3	Not Detected	4.0	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
Toluene	1.3	4.8	4.8	18
m,p-Xylene	1.3	2.0	5.5	8.7
o-Xylene	1.3	Not Detected	5.5	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Butane	106-97-8	NA	Not Detected
Propane, 2-methyl-	75-28-5	9.0%	7.7
Propane	74-98-6	NA	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-5-Duplicate

Lab ID#: 0909250A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092311**	**Date of Collection:**	**9/8/09 12:50:00 PM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**9/23/09 01:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	Not Detected	3.9	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
Toluene	1.2	4.4	4.6	16
m,p-Xylene	1.2	1.5	5.4	6.4
o-Xylene	1.2	Not Detected	5.4	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Butane	106-97-8	NA	Not Detected
Propane, 2-methyl-	75-28-5	9.0%	7.7
Propane	74-98-6	NA	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-3

Lab ID#: 0909250A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092312**	**Date of Collection: 9/8/09 1:37:00 PM**	
Dil. Factor:	**2.53**	**Date of Analysis: 9/23/09 02:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.3	Not Detected	4.0	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
Toluene	1.3	1.6	4.8	6.0
m,p-Xylene	1.3	1.3	5.5	5.8
o-Xylene	1.3	Not Detected	5.5	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Butane	106-97-8	38%	7.4
Propane, 2-methyl-	75-28-5	9.0%	4.2
Propane	74-98-6	NA	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0909250A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092305**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/23/09 09:42 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected

Air TOXICS LTD.
Laboratory Services Since 1980

Client Sample ID: Lab Blank

Lab ID#: 0909250A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092305**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/23/09 09:42 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	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
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Isobutane	75-28-5	NA	Not Detected
Butane	106-97-8	NA	Not Detected
Propane	74-98-6	NA	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0909250A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/23/09 07:33 AM**	

Compound	%Recovery
Freon 12	100
Freon 114	98
Chloromethane	103
Vinyl Chloride	103
1,3-Butadiene	93
Bromomethane	92
Chloroethane	97
Freon 11	98
Ethanol	95
Freon 113	94
1,1-Dichloroethene	104
Acetone	103
2-Propanol	98
Carbon Disulfide	105
3-Chloropropene	103
Methylene Chloride	100
Methyl tert-butyl ether	101
trans-1,2-Dichloroethene	104
Hexane	100
1,1-Dichloroethane	107
2-Butanone (Methyl Ethyl Ketone)	111
cis-1,2-Dichloroethene	105
Tetrahydrofuran	103
Chloroform	101
1,1,1-Trichloroethane	103
Cyclohexane	107
Carbon Tetrachloride	106
2,2,4-Trimethylpentane	108
Benzene	110
1,2-Dichloroethane	101
Heptane	108
Trichloroethene	103
1,2-Dichloropropane	107
1,4-Dioxane	104
Bromodichloromethane	106
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	109
Toluene	107
trans-1,3-Dichloropropene	104

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0909250A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/23/09 07:33 AM**	

Compound	%Recovery
1,1,2-Trichloroethane	101
Tetrachloroethene	98
2-Hexanone	101
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	104
Chlorobenzene	102
Ethyl Benzene	104
m,p-Xylene	105
o-Xylene	106
Styrene	104
Bromoform	110
Cumene	102
1,1,2,2-Tetrachloroethane	116
Propylbenzene	115
4-Ethyltoluene	112
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	112
1,2-Dichlorobenzene	107
1,2,4-Trichlorobenzene	115
Hexachlorobutadiene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0909250A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	t092303	**Date of Collection:**	NA
Dil. Factor:	1.00	**Date of Analysis:**	9/23/09 08:13 AM

Compound	%Recovery
Freon 12	99
Freon 114	103
Chloromethane	103
Vinyl Chloride	102
1,3-Butadiene	89
Bromomethane	94
Chloroethane	94
Freon 11	97
Ethanol	72
Freon 113	109
1,1-Dichloroethene	119
Acetone	104
2-Propanol	103
Carbon Disulfide	106
3-Chloropropene	102
Methylene Chloride	112
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	105
Hexane	102
1,1-Dichloroethane	114
2-Butanone (Methyl Ethyl Ketone)	112
cis-1,2-Dichloroethene	108
Tetrahydrofuran	103
Chloroform	104
1,1,1-Trichloroethane	106
Cyclohexane	106
Carbon Tetrachloride	109
2,2,4-Trimethylpentane	107
Benzene	109
1,2-Dichloroethane	104
Heptane	107
Trichloroethene	103
1,2-Dichloropropane	104
1,4-Dioxane	101
Bromodichloromethane	107
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	109
Toluene	108
trans-1,3-Dichloropropene	105

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0909250A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**t092303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/23/09 08:13 AM**	

Compound	%Recovery
1,1,2-Trichloroethane	102
Tetrachloroethene	102
2-Hexanone	101
Dibromochloromethane	108
1,2-Dibromoethane (EDB)	101
Chlorobenzene	102
Ethyl Benzene	102
m,p-Xylene	104
o-Xylene	106
Styrene	106
Bromoform	114
Cumene	104
1,1,2,2-Tetrachloroethane	108
Propylbenzene	112
4-Ethyltoluene	107
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	117
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	126
Hexachlorobutadiene	115

Container Type: NA - Not Applicable

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

Air Toxics LTD.
Laboratory Services Since 1989

9/22/2009
Mr. Mark Jonas
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: Borsuk
Project #: 540188
Workorder #: 0909250C

Dear Mr. Mark Jonas

The following report includes the data for the above referenced project for sample(s) received on 9/11/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 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 #: 0909250C

Work Order Summary

CLIENT:	Mr. Mark Jonas Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	**BILL TO:**	Mr. Mark Jonas Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
PHONE:	510-420-0700	**P.O. #**	40-4023397
FAX:	510-420-9170	**PROJECT #**	540188 Borsuk
DATE RECEIVED:	09/11/2009	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	09/22/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV-4	Modified ASTM D-1946	4.5 "Hg	15 psi
02A	SV-6	Modified ASTM D-1946	4.5 "Hg	15 psi
03A	SV-8	Modified ASTM D-1946	4.0 "Hg	15 psi
04A	SV-7	Modified ASTM D-1946	4.0 "Hg	15 psi
04AA	SV-7 Lab Duplicate	Modified ASTM D-1946	4.0 "Hg	15 psi
05A	SV-5	Modified ASTM D-1946	6.0 "Hg	15 psi
06A	SV-5-Duplicate	Modified ASTM D-1946	5.5 "Hg	15 psi
07A	SV-3	Modified ASTM D-1946	6.0 "Hg	15 psi
08A	Lab Blank	Modified ASTM D-1946	NA	NA
09A	LCS	Modified ASTM D-1946	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 09/22/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
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: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified ASTM D-1946
Conestoga-Rovers Associates (CRA)
Workorder# 0909250C

Seven 1 Liter Summa Canister (100% Certified) samples were received on September 11, 2009. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

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-1946*	*ATL Modifications*
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Ideal gas behavior has been assumed to convert mole percent results to ug/m3.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
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
MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

Client Sample ID: SV-4

Lab ID#: 0909250C-01A

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.24	3100000	17	230000000
Carbon Dioxide	0.024	430000	0.57	10000000

Client Sample ID: SV-6

Lab ID#: 0909250C-02A

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.24	3100000	17	230000000
Carbon Dioxide	0.024	430000	3.4	61000000

Client Sample ID: SV-8

Lab ID#: 0909250C-03A

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.23	3000000	16	210000000
Carbon Dioxide	0.023	420000	0.38	6900000

Client Sample ID: SV-7

Lab ID#: 0909250C-04A

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.23	3000000	19	240000000
Carbon Dioxide	0.023	420000	0.40	7200000

Client Sample ID: SV-7 Lab Duplicate

Lab ID#: 0909250C-04AA

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.23	3000000	19	240000000
Carbon Dioxide	0.023	420000	0.40	7200000

Client Sample ID: SV-5

Lab ID#: 0909250C-05A

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

Client Sample ID: SV-5

Lab ID#: 0909250C-05A

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.25	3300000	17	220000000
Carbon Dioxide	0.025	460000	2.6	46000000

Client Sample ID: SV-5-Duplicate

Lab ID#: 0909250C-06A

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.25	3200000	17	220000000
Carbon Dioxide	0.025	440000	2.6	47000000

Client Sample ID: SV-3

Lab ID#: 0909250C-07A

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.25	3300000	16	200000000
Carbon Dioxide	0.025	460000	2.5	45000000

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-4

Lab ID#: 0909250C-01A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	**9091303**	**Date of Extraction: NA**	**Date of Collection: 9/8/09 7:45:00 AM**
Dil. Factor:	**2.38**		**Date of Analysis: 9/13/09 10:23 AM**

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.24	3100000	17	230000000
Methane	0.00024	1600	Not Detected	Not Detected
Carbon Dioxide	0.024	430000	0.57	10000000

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-6

Lab ID#: 0909250C-02A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	**9091304**	**Date of Extraction: NA**	**Date of Collection: 9/8/09 9:36:00 AM**
Dil. Factor:	**2.38**		**Date of Analysis: 9/13/09 10:44 AM**

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.24	3100000	17	230000000
Methane	0.00024	1600	Not Detected	Not Detected
Carbon Dioxide	0.024	430000	3.4	61000000

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-8

Lab ID#: 0909250C-03A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	**9091305**	**Date of Extraction: NA**	**Date of Collection: 9/8/09 10:41:00 AM**
Dil. Factor:	**2.33**		**Date of Analysis: 9/13/09 11:13 AM**

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.23	3000000	16	210000000
Methane	0.00023	1500	Not Detected	Not Detected
Carbon Dioxide	0.023	420000	0.38	6900000

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-7

Lab ID#: 0909250C-04A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	**9091306**	**Date of Extraction: NA**	**Date of Collection: 9/8/09 11:40:00 AM**
Dil. Factor:	**2.33**		**Date of Analysis: 9/13/09 12:07 PM**

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.23	3000000	19	240000000
Methane	0.00023	1500	Not Detected	Not Detected
Carbon Dioxide	0.023	420000	0.40	7200000

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-7 Lab Duplicate

Lab ID#: 0909250C-04AA

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	**9091307**	**Date of Extraction: NA**	**Date of Collection: 9/8/09 11:40:00 AM**
Dil. Factor:	**2.33**		**Date of Analysis: 9/13/09 01:00 PM**

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.23	3000000	19	240000000
Methane	0.00023	1500	Not Detected	Not Detected
Carbon Dioxide	0.023	420000	0.40	7200000

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-5

Lab ID#: 0909250C-05A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9091308	Date of Extraction: NA	Date of Collection: 9/8/09 12:50:00 PM
Dil. Factor:	2.53		Date of Analysis: 9/13/09 01:25 PM

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.25	3300000	17	220000000
Methane	0.00025	1600	Not Detected	Not Detected
Carbon Dioxide	0.025	460000	2.6	46000000

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-5-Duplicate

Lab ID#: 0909250C-06A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	**9091309**	**Date of Extraction: NA**	**Date of Collection: 9/8/09 12:50:00 PM**
Dil. Factor:	**2.47**		**Date of Analysis: 9/13/09 01:51 PM**

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.25	3200000	17	220000000
Methane	0.00025	1600	Not Detected	Not Detected
Carbon Dioxide	0.025	440000	2.6	47000000

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SV-3

Lab ID#: 0909250C-07A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9091310	Date of Extraction: NA	Date of Collection: 9/8/09 1:37:00 PM
Dil. Factor:	2.53		Date of Analysis: 9/13/09 02:13 PM

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.25	3300000	16	200000000
Methane	0.00025	1600	Not Detected	Not Detected
Carbon Dioxide	0.025	460000	2.5	45000000

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0909250C-08A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	**9091302**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 9/13/09 09:51 AM**

Compound	Rpt. Limit (%)	Rpt. Limit (ug/m3)	Amount (%)	Amount (ug/m3)
Oxygen	0.10	1300000	Not Detected	Not Detected
Methane	0.00010	660	Not Detected	Not Detected
Carbon Dioxide	0.010	180000	Not Detected	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0909250C-09A

MODIFIED NATURAL GAS ANALYSIS BY ASTM D-1946

File Name:	9091316	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00		Date of Analysis: 9/13/09 05:25 PM

Compound	%Recovery
Oxygen	100
Methane	100
Carbon Dioxide	101

Container Type: NA - Not Applicable

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

CHAIN-OF-CUSTODY RECORD

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

Project Manager: Mark Jonas
Collected by: (Print and Sign) Bryan A. Fong
Company: Conestoga-Rovers & Associates Email: MJONAS@CRAworld.com
Address: 5900 Hollis St, Suite A City: Emeryville State: CA Zip: 94608
Phone: 510-420-0700 Fax: 510-420-9170

Project Info:
P.O. # ~~540188~~
Project # 540188
Project Name: Borsuk

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	SV-4	13896	9-8-09	7:45	TPHg (TO-3), BTEX (TO-15)	-30	-6		
02A	SV-6	33390	9-8-09	9:36	Butane, Isobutane, Propane by (TO-15, TIC)	-30	-6		
03A	SV-8	35644	9-8-09	10:41	O_2, CO_2, CH_4 by (ASTM-D 1946)	-30	-5		
04A	SV-7	2172	9-8-09	11:40	↓	-30	-5		
05A	SV-5	2042	9-8-09	12:50	↓	-30	-6		
06A	SV-5-Duplicate	36377	9-8-09	12:50	↓	-30	-6		
07A	SV-3	35626	9-8-09	13:37	↓	-30	-6		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Bryan A. Fong	9-9-09 / 15:00	Monica Gregen ATL	9/11/09 0925
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
Please add VOCs by TO-15 to SV-8 only.

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	Yes No (None)	0909250

Form 1293 rev.11

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

ANALYTICAL REPORT

Report Date September 17, 2009

Mark Jones
Conestoga-Rovers & Assoc., Inc.
5900 Hollis St.
Suite A
Emeryville, CA 94608

Phone: (510) 420-0700
Fax: (510) 420-9170

E-mail: mjonas@craworld.com

Client Project ID: Conestoga-Rovers & Assoc091109
Purchase Order: 40-4023791
Workorder: 9254033
Project Manager Paul Pope

Analytical Results

Sample ID: SV-6 | Media: SKC 226-17-1A, Hopcalite Tube | Collected: 9/8/2009
Lab ID: 9254033001 | Sampling Location: 1434 Harrison St. Oa | Received: 9/11/2009

Method: NIOSH 6009 | Analyzed: 9/17/2009

Analyte	ug/sample	mg/m³	ppm	RL (ug/sample)
Mercury	<0.010	NA	NA	0.010

Sample ID: SV-6 Duplicate | Media: SKC 226-17-1A, Hopcalite Tube | Collected: 9/8/2009
Lab ID: 9254033002 | Sampling Location: 1434 Harrison St. Oa | Received: 9/11/2009

Method: NIOSH 6009 | Analyzed: 9/17/2009

Analyte	ug/sample	mg/m³	ppm	RL (ug/sample)
Mercury	<0.010	NA	NA	0.010

Sample ID: SV-8 | Media: SKC 226-17-1A, Hopcalite Tube | Collected: 9/8/2009
Lab ID: 9254033003 | Sampling Location: 1434 Harrison St. Oa | Received: 9/11/2009

Method: NIOSH 6009 | Analyzed: 9/17/2009

Analyte	ug/sample	mg/m³	ppm	RL (ug/sample)
Mercury	<0.010	NA	NA	0.010

Sample ID: SV-7 | Media: SKC 226-17-1A, Hopcalite Tube | Collected: 9/8/2009
Lab ID: 9254033004 | Sampling Location: 1434 Harrison St. Oa | Received: 9/11/2009

Method: NIOSH 6009 | Analyzed: 9/17/2009

Analyte	ug/sample	mg/m³	ppm	RL (ug/sample)
Mercury	<0.010	NA	NA	0.010

ANALYTICAL REPORT

Client Project ID: Conestoga-Rovers & Assoc091109
Purchase Order: 40-4023791
Workorder: 9254033
Project Manager Paul Pope

Analytical Results

Sample ID: Field Blank | Media: SKC 226-17-1A, Hopcalite Tube | Collected: 9/8/2009
Lab ID: 9254033005 | Sampling Location: 1434 Harrison St. Oa | Received: 9/11/2009

Method: NIOSH 6009 | Analyzed: 9/17/2009

Analyte	ug/sample	mg/m³	ppm	RL (ug/sample)
Mercury	<0.010	NA	NA	0.010

Report Authorization

Method: NIOSH 6009

Christopher R. Hansen — Analyst

Sarah E. Adamson — Peer Review

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.
LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.
ND = Not Detected, Testing result not detected above the LOD or LOQ.
** No result could be reported, see sample comments for details.
< This testing result is less than the numerical value.
( ) This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS Laboratory Group.

ALS Laboratory Group is accredited by AIHA for specific fields of testing as documented in its current scope of accreditation (ID#101574) which is available on request by contacting your project manager or view on the internet at http://www.aiha.org. The quality systems implemented in the laboratory apply to all methods performed by ALS Laboratory Group regardless of this current scope of accreditation which does not include performance based methods, modified methods, and methods applied to matrices not listed in the methods.

ALS DataChem provides professional analytical services for all samples submitted. ALS Laboratory Group is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

Laboratory Contact Information

Phone: (801) 266-7700
Email: lab@datachem.com
Web: www.datachem.com

ALS Laboratory Group (formerly DataChem Laboratories, Inc.)
960 W Levoy Drive
Salt Lake City, Utah 84123

Batch Report

Analysis Information

Workorder: 9254033

Analyst: Christopher R. Hansen | **Start Date:** 9/17/2009 | **Method:** NIOSH 6009

Batch: IHG/1340 (HBN: 34689) | **End Date:** 9/17/2009 | **Matrix:** Air

Blank

LMB: 113413
Analyzed: 09/17/2009 10:32
Units: ug/sample

Analyte	Result	RL
Mercury	ND	0.01

LMB: 113414
Analyzed: 09/17/2009 10:33
Units: ug/sample

Analyte	Result	RL
Mercury	ND	0.01

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 113415
Analyzed: 09/17/2009 10:35
Units: ug/sample

LCSD: 113416
Analyzed: 09/17/2009 10:36

Analyte	Result	Target	% Recovery	QC Limits		Result	RPD	QC Limits	
Mercury	0.538	0.5	108	80.3	128.9	0.539	0.209	0	15

LCS: 113417
Analyzed: 09/17/2009 10:38
Units: ug/sample

LCSD: 113418
Analyzed: 09/17/2009 10:39

Analyte	Result	Target	% Recovery	QC Limits		Result	RPD	QC Limits	
Mercury	0.538	0.5	108	80.3	128.9	0.539	0.176	0	15

Comments

None

QC Data Approved and Reviewed by

Christopher R. Hansen	Sarah E. Adamson	9/17/2009
Analyst	Peer Review	Date

Symbols and Definitions

* - See Comments section for more information

▲ - Sample result is greater than 4 times the spike added.

RPD - Relative % Difference (Spike / Spike Duplicate)

ND - Not Detected

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Quality Control Sample Batch Report

Analysis Information

Workorder: 9254033
Analyst: Christopher R. Hansen | **Start Date:** 9/17/2009 | **Method:** NIOSH 6009
Batch: IHG/1340 (HBN: 34689) | **End Date:** 9/17/2009 | **Matrix:** Air

Blank

LMB: 113413
Analyzed: 09/17/2009 10:32
Units: ug/sample

Analyte	Result	RL
Mercury	ND	0.01

LMB: 113414
Analyzed: 09/17/2009 10:33
Units: ug/sample

Analyte	Result	RL
Mercury	ND	0.01

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 113415
Analyzed: 09/17/2009 10:35
LCSD: 113416
Analyzed: 09/17/2009 10:36
Units: ug/sample

Analyte	Result	Target	% Recovery	QC Limits		Result	RPD	QC Limits	
Mercury	0.538	0.5	108	80.3	128.9	0.539	0.209	0	15

LCS: 113417
Analyzed: 09/17/2009 10:38
LCSD: 113418
Analyzed: 09/17/2009 10:39
Units: ug/sample

Analyte	Result	Target	% Recovery	QC Limits		Result	RPD	QC Limits	
Mercury	0.538	0.5	108	80.3	128.9	0.539	0.176	0	15

Comments

None

QC Data Approved and Reviewed by

Christopher R. Hansen	Sarah E. Adamson	9/17/2009
Analyst	**Peer Review**	**Date**

Symbols and Definitions
* - See Comments section for more information
▲ - Sample result is greater than 4 times the spike added.
RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected

2009-09-11-9254033-01

592/5016/1

W 9254033

ANALYTICAL REQUEST FORM

1. ☒ REGULAR Status 9254033

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 9-8-09 Purchase Order No. 40-4023791

3. Company Name Conestoga-Rovers & Associates
Address 5900 Hollis St., Suite A., Emeryville, CA 94608
Person to Contact Mark Jonas or Bryan Fong
Telephone (510) 420-0700
Fax Telephone (510) 420-9170
E-mail Address MJONAS@CRAworld.com
Billing Address (if different from above)

4. Quote No. _____
ALS Project Manager Paul Pope

5. Sample Collection
Sampling Site 1434 Harrison St, Oakland, CA
Industrial Process _____
Date of Collection 9-8-09
Time Collected 8:46, 9:19, 10:22, 11:21
Date of Shipment 9-9-09
Chain of Custody No. _____

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Matrix*	Sample Volume	ANALYSES REQUESTED - Use method number if known	Units**
	SV-6	Solid Sorbent tube		Mercury (NMAM 6009)	5
	SV-6-Duplicate	↓		↓	↓
	SV-8				
	SV-7				
	Field Blank				

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m³ 3. ppm 4. % (5. µg/m³) 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments Received Field Blank

Possible Contamination and/or Chemical Hazards _____

7. Chain of Custody (Optional)

Relinquished by	Bryan A Fong	Date/Time	9/9/09 15:00
Received by		Date/Time	9/11/09 9:50
Relinquished by		Date/Time	
Received by		Date/Time	

960 West LeVoy Drive / Salt Lake City, UT 84123 800-356-9135 or 801-266-7700 / FAX: 801-268-9992
ALS Laboratory Group

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 08/31/09
5900 Hollis St, Suite A		Date Received: 09/01/09
Emeryville, CA 94608	Client Contact: Mark Jonas	Date Reported: 09/09/09
	Client P.O.:	Date Completed: 09/09/09

WorkOrder: 0909019

September 09, 2009

Dear Mark:

Enclosed within are:

1) The results of the **8** analyzed samples from your project: **#540188; Borsuk,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

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

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

0909019

McCAMPBELL ANALYTICAL, INC.

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

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

☒ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW)

Report To: Mark Jonas Bill To: CRA
Company: Conestoga-Rovers & Associates
CC: Btoog@CRAworld.com E-Mail: MJonas@CRAworld.com
Tele: (510) 420-0700 Fax: (510) 420-9170
Project #: 540188 Project Name: Barsuk
Project Location: 1432 Harrison St, Oakland, CA
Sampler Signature: Brogan A. Toog

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602 / 8021 + 8015)	Analysis Request: MTBE / BTEX ONLY (EPA 602 / 8021)	Analysis Request: TPH as Diesel / Motor Oil (8015)	Analysis Request: Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Analysis Request: Total Petroleum Hydrocarbons (418.1)	Analysis Request: EPA 502.2 / 601 / 8010 / 8021 (HVOC's)	Analysis Request: EPA 505/ 608 / 8081 (Cl Pesticides)	Analysis Request: EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	Analysis Request: EPA 507 / 8141 (NP Pesticides)	Analysis Request: EPA 515 / 8151 (Acidic Cl Herbicides)	Analysis Request: EPA 524.2 / 624 / 8260 (VOCs)	Analysis Request: EPA 525.2 / 625 / 8270 (SVOCs)	Analysis Request: EPA 8270 SIM / 8310 (PAHs / PNAs)	Analysis Request: CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	Analysis Request: LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Analysis Request: Lead (240.7 / 200.8 / 6010 / 6020)	Other	Comments
B-24-5		8/31/09	11:00	1	tube		X				X				X																	Filter Samples for Metals analysis: Yes / No
B-24-10			11:55	1	tube		X				X				X																	
B-24-15			12:03	1	tube		X				X				X																	
B-24-20			12:30	1	tube		X				X				X																	
B-24-25			12:50	1	tube		X				X				X																	
B-24-29.5			13:13	1	tube		X				X				X																	
B-24-35			13:35	1	tube		X				X				X																	
B-24-49.5		↓	14:40	1	tube		X				X				X																	

Relinquished By:	Date:	Time:	Received By:
	9/2/09	18:00	
Relinquished By:	Date:	Time:	Received By:
	9/3/09	3:00	
Relinquished By:	Date:	Time:	Received By:
	9/4/09	5:15	

ICE/t° 5.2 i COMMENTS:
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

VOAS O&G METALS OTHER
PRESERVATION pH<2

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909019 **ClientCode: CETE**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Mark Jonas
Conestoga-Rovers & Associates
5900 Hollis St, Suite A
Emeryville, CA 94608
(510) 420-0700 FAX (510) 420-9170

Email: mjonas@CRAworld.com, chee@crawor
cc:
PO:
ProjectNo: #540188; Borsuk

Bill to:
Accounts Payable
Conestoga-Rovers & Associates
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days

Date Received: **09/01/2009**
Date Printed: **09/01/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0909019-001	B-24-5	Soil	8/31/2009 11:00	☐	A	A										
0909019-002	B-24-10	Soil	8/31/2009 11:55	☐	A											
0909019-003	B-24-15	Soil	8/31/2009 12:03	☐	A											
0909019-004	B-24-20	Soil	8/31/2009 12:30	☐	A											
0909019-005	B-24-25	Soil	8/31/2009 12:50	☐	A											
0909019-006	B-24-29.5	Soil	8/31/2009 13:13	☐	A											
0909019-007	B-24-35	Soil	8/31/2009 13:35	☐	A											
0909019-008	B-24-49.5	Soil	8/31/2009 14:40	☐	A											

Test Legend:

1	G-MBTEX_S	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

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

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **Conestoga-Rovers & Associates**
Date and Time Received: **9/1/2009 5:15:02 PM**

Project Name: **#540188; Borsuk**
Checklist completed and reviewed by: Melissa Valles

WorkOrder N°: **0909019** Matrix Soil
Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 5.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 08/31/09
		Date Received: 09/01/09
5900 Hollis St, Suite A	Client Contact: Mark Jonas	Date Extracted: 09/01/09
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 09/04/09-09/08/09

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 0909019

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	B-24-5	S	ND	ND	ND	ND	ND	ND	1	86	
002A	B-24-10	S	ND	ND	ND	ND	ND	ND	1	76	
003A	B-24-15	S	ND	ND	ND	ND	ND	ND	1	80	
004A	B-24-20	S	1.5	ND	ND	ND	ND	ND	1	79	d7
005A	B-24-25	S	4300	ND<5.0	ND<0.50	4.2	9.5	190	100	---#	d7,d9
006A	B-24-29.5	S	22	ND<0.25	0.15	0.074	0.028	0.65	5	72	d7,d9
007A	B-24-35	S	1400	ND<5.0	1.6	3.3	2.8	49	100	---#	d7,d9
008A	B-24-49.5	S	890	ND<10	1.2	2.3	1.1	26	200	---#	d7

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9) no recognizable pattern

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 45486 | WorkOrder 0909019

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0908737-002A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	107	114	6.26	109	112	2.86	70 - 130	20	70 - 130	20
MTBE	ND	0.10	112	114	1.40	109	112	2.78	70 - 130	20	70 - 130	20
Benzene	ND	0.10	94.4	98.3	3.99	96.7	99.5	2.83	70 - 130	20	70 - 130	20
Toluene	ND	0.10	94.7	101	6.59	96.4	99.1	2.78	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	92.8	95.6	3.01	93.8	96.9	3.27	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	94.2	96.2	2.11	94.6	97.9	3.39	70 - 130	20	70 - 130	20
%SS:	84	0.10	81	84	3.35	84	85	1.51	70 - 130	20	70 - 130	20

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

BATCH 45486 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909019-001A	08/31/09 11:00 AM	09/01/09	09/04/09 3:57 PM	0909019-002A	08/31/09 11:55 AM	09/01/09	09/04/09 7:46 PM
0909019-003A	08/31/09 12:03 PM	09/01/09	09/04/09 8:16 PM	0909019-004A	08/31/09 12:30 PM	09/01/09	09/04/09 9:17 PM
0909019-005A	08/31/09 12:50 PM	09/01/09	09/04/09 12:06 PM	0909019-006A	08/31/09 1:13 PM	09/01/09	09/08/09 6:22 PM
0909019-007A	08/31/09 1:35 PM	09/01/09	09/04/09 1:07 PM	0909019-008A	08/31/09 2:40 PM	09/01/09	09/04/09 1:38 PM

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

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

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

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

DHS ELAP Certification 1644

QA/QC Officer

APPENDIX G

SOIL VAPOR SAMPLING DATA SHEETS

CRA

DAILY FIELD REPORT

Project Name: Borsuk	CRA Mgr: Mark Jones	Field Rep: Bryan Fong
Project Number: 540164	Date: 8/31/09	Site Address: 1432 Harrison St. Oakland, CA
General Tasks: Boring & Vapor Wells.		

Time	Activity/Comments	Hours
5:00	Load equipment to truck.	
5:30	MOB to Site	
6:00	Arrived at site. Gregg & Del Secco on site. Unloaded drill rig from trailer.	
6:15	Tailgate meeting	
6:40	PID caliborated to 97. Began coring SV-8 & SV-7 locations.	
7:30	Successfully cored SV-8 & SV-7.	
8:30	Completed SV-8. Well box set.	
9:10	Completed SV-7. Well box set.	
9:45	Pea gravel encountered in SV-6 location. Notified PM.	
11:30	Break.	
11:45	Continued work. Begin drilling B-24.	
	* Ron S with Alameda County on site. Boring B-24 not ready for inspection. OK to proceed without inspection per James Y and Ron S.	
14:15	Collected 4-Point composite sample D1-A, D1-B, D1-C, D1-D	
14:30	Second attempt SV-6. Pea gravel. Stepout for third attempt.	
16:45	Clean up.	
17:15	MOB off site.	

CRA

DAILY FIELD REPORT

Project Name: Borsuk	CRA Mgr: Mark Jones.	Field Rep: Bryan Fong
Project Number: 540188	Date: 9-8-09	Site Address: 1434 Harrison St. Oakland.
General Tasks: Soil gas sampling		

Time	Activity/Comments	Hours
6:00	Load equipment to truck.	
6:30	Mob to Site.	
6:40	Arrived at 1434 Harrison St.	
7:14	Pressure test. 13896 canister. -29 begin. -29 end @ 7:27. Pass	
7:26	Pressure test. 33390 canister. -30 begin. - FAIL - re-test.	
8:09	Calibrated pump for mercury samples.	
8:16	Began mercury sampling on SV-6. End sampling @ 8:46	
8:24	Tightened fittings for pressure test 33390 canister. -25 begin. - FAIL - new manifold.	
8:37	New manifold. Pressure test 33390 canister. -25 begin. - 25 end @ 8:51	Pass.
8:48	Mercury SV-6 duplicate begin sampling. End sampling @ 9:19	
9:52	Began mercury sample on SV-8. End sampling @ 10:22	
9:58	Pressure test 35644 canister. -21 begin. -21 end @ 10:08 Pass.	
10:51	Began mercury sample on SV-7. End sampling @ 11:21	
11:00	Pressure test 2172 canister. -16 begin. - FAIL - re-test.	
11:12	Tightened fittings for 2172 canister. Re-test -16 begin. -16 end @ 11:26 Pass.	
12:15	Pressure test 36377 & 7042. -12 begin. -12 end @ 12:25 Pass.	
13:08	Pressure test 35626. - 5.5 begin. -5.5 end @ 13:18 Pass.	
14:00	Clean up. MOB to flash Safety to remove barricades.	

Conestoga-Rovers & Associates

SOIL VAPOR SAMPLING DATA SHEET

Soil Vapor Sampling Point ID: SV-4

Project Name: Borsuk
Project No: 540188
Site Address: 1434 Harrison St.

Date: 9-8-09
Sampler: Bryan Fong
PM: Merle Jones

Purge Volume

Calculated Purge Volume: 3 in Hg

Time	Flow Rate	Volume	Comments

Sample Collection

Flow Control Setting: _____ Summa Canister ID: 13896

Summa Canister Size: 1-liter Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
7:34	-30	7:45	-6	7:45

Notes:

Soil Vapor Sampling Point ID: SV-6

Project Name: Borsuk
Project No: 540188
Site Address: 1434 Harrison St.

Date: 9-8-09
Sampler: Bryan Fong
PM: Merle Jones

Purge Volume

Calculated Purge Volume: 3 in Hg.

Time	Flow Rate	Volume	Comments

Sample Collection

Flow Control Setting: _____ Summa Canister ID: 33390

Summa Canister Size: 1-liter Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
9:28	-30	9:36	-6	9:36

Notes:

Conestoga-Rovers & Associates

SOIL VAPOR SAMPLING DATA SHEET

Soil Vapor Sampling Point ID: SV-8

Project Name: Borsuk
Project No: 540188
Site Address: 1434 Harrison St.

Date: 9-8-09
Sampler: Bryan Fong
PM: Mark Jonas

Purge Volume

Calculated Purge Volume: 3 in Hg.

Time	Flow Rate	Volume	Comments

Sample Collection

Flow Control Setting: _____ Summa Canister ID: 35644

Summa Canister Size: 1-liter Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
10:32	-30	10:41	-5	10:41

Notes:

Soil Vapor Sampling Point ID: SV-7

Project Name: Borsuk
Project No: 540188
Site Address: 1434 Harrison St.

Date: _____
Sampler: Bryan Fong
PM: Mark Jonas.

Purge Volume

Calculated Purge Volume: 3 in Hg.

Time	Flow Rate	Volume	Comments

Sample Collection

Flow Control Setting: _____ Summa Canister ID: 2172

Summa Canister Size: 1-liter Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
11:32	-30	11:40	-5	11:40

Notes:

Conestoga-Rovers & Associates

SOIL VAPOR SAMPLING DATA SHEET

Soil Vapor Sampling Point ID: SV-5

Project Name: Mark Borsuk **Date:** 9-8-09

Project No: 540188 **Sampler:** Bryan Fong

Site Address: 1434 Harrison St. **PM:** Mark Jonas

Purge Volume

Calculated Purge Volume: 3 in Hg

Time	Flow Rate	Volume	Comments

Sample Collection

Flow Control Setting: _____ Summa Canister ID: 2042

Summa Canister Size: 1-liter Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
12:30	-30	12:50	-6	12:50

Notes:

Soil Vapor Sampling Point ID: SV-5-Duplicate

Project Name: Mark Borsuk **Date:** 9-8-09

Project No: 540188 **Sampler:** Bryan Fong

Site Address: 1434 Harrison St. **PM:** Mark Jones.

Purge Volume

Calculated Purge Volume: 3 in Hg

Time	Flow Rate	Volume	Comments

Sample Collection

Flow Control Setting: _____ Summa Canister ID: 36377

Summa Canister Size: 1-liter Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
12:30	-30	12:50	-6	12:50

Notes:

Conestoga-Rovers & Associates

SOIL VAPOR SAMPLING DATA SHEET

Soil Vapor Sampling Point ID: SV-3

Project Name: Borsuk **Date:** 9-8-09

Project No: 540188 **Sampler:** Bryan Fong

Site Address: 1434 Harrison St. **PM:** Herb Jonas

Purge Volume

Calculated Purge Volume: 3 in Hg

Time	Flow Rate	Volume	Comments

Sample Collection

Flow Control Setting: _____ Summa Canister ID: 35626

Summa Canister Size: 1-liter Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
13:27	-30	13:37	-6	13:37

Notes:

Soil Vapor Sampling Point ID: _____

Project Name: _____ **Date:** _____

Project No: _____ **Sampler:** _____

Site Address: _____ **PM:** _____

Purge Volume

Calculated Purge Volume: _____

Time	Flow Rate	Volume	Comments

Sample Collection

Flow Control Setting: _____ Summa Canister ID: _____

Summa Canister Size: _____ Analysis: _____

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time

Notes:

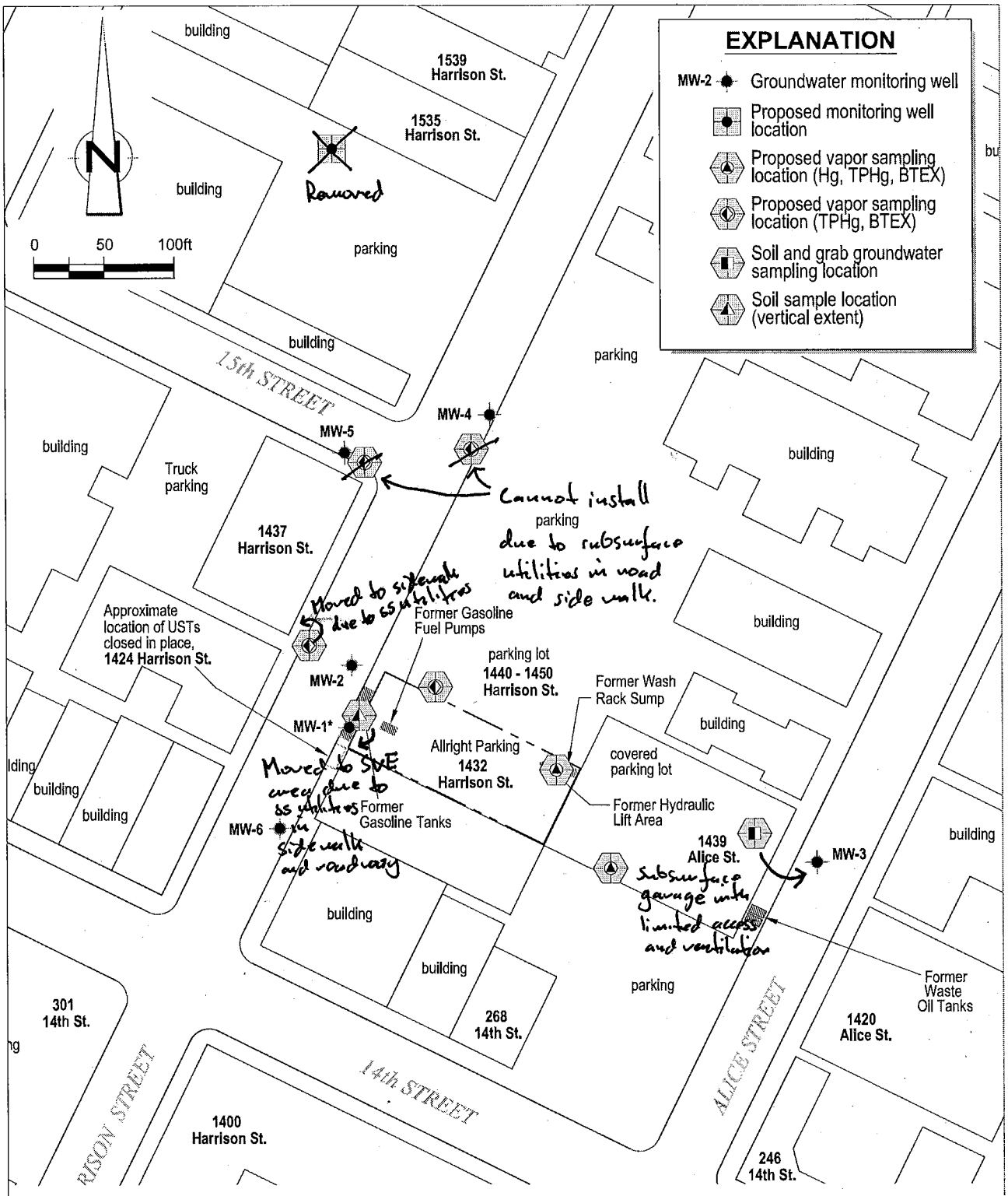


FIGURE 10

PROPOSED SAMPLING LOCATIONS

1439 ALICE STREET

Oakland, California

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Revision of proposed location based subsurface utilities and subsurface garage. M. Jonas, P.G. 8/27/09