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Real Estate

November 2, 2009

Mr. Jerry Wickham
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

SUBJECT: SUBSURFACE INVESTIGATION REPORT CERTIFICATION
County File # RO 504
William Wurzbach Company
1200 20th Avenue
Oakland, CA 94606

Dear Mr. Wickham:

You will find enclosed one copy of the following document prepared by P&D Environmental, Inc. for the subject site.

- Subsurface Investigation Report (B10 and SG-1) dated November 2, 2009 (document 0405.R5).

I declare under penalty of perjury, that the information and/or recommendations contained in the above-mentioned report for the subject site is true and correct to the best of my knowledge.

Should you have any questions, please do not hesitate to contact us at (510) 834-9811.

Sincerely,

J.W. Silveira Realty

J.W. Silveira

0405.L13

P&D ENVIRONMENTAL, INC.

55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

November 2, 2009
Report 0405.R5

Mr. J.W. Silveira
J.W. Silveira Realty
499 Embarcadero
Oakland, CA 94606

SUBJECT: SUBSURFACE INVESTIGATION REPORT
(B10 and SG-1)
County File # RO 504
William Wurzbach Company
1200 20th Avenue
Oakland, CA

Dear Mr. Silveira:

P&D Environmental, Inc. (P&D) is pleased to present this report for the drilling of one soil boring at location B10 and for the collection of one sub-slab soil gas sample designated as SG1 at the subject site. The soil boring was drilled for the collection of soil and groundwater samples to the east of the former underground storage tank UST pit to complete the horizontal delineation of petroleum-impacted soil and first-encountered groundwater. The soil gas sampling was performed in an effort to evaluate the risk posed by petroleum hydrocarbon vapor intrusion to occupants of the building located adjacent to the former UST pit.

All work was performed in accordance with recommendations set forth in P&D's Subsurface Investigation Report dated June 16, 2009 (document 0405.R4). The scope of work was approved in a letter from the Alameda County Department of Environmental Health (ACDEH) dated August 14, 2009.

A Site Location Map is attached as Figure 1, and a Site Vicinity Map Detail showing the sample collection is attached as Figure 2. All work was performed under the direct supervision of a professional geologist. This work plan is prepared in accordance with guidelines set forth in the following documents.

- "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.
- San Francisco Bay Regional Water Quality Control Board (SFRWQCB) "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater" dated May 2008,
- Department of Toxic Substances Control (DTSC) January 13, 2003 "Advisory - Active Soil Gas Investigations" dated January 13, 2003, and

- DTSC "Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air" revised February 7, 2005.

BACKGROUND

The subject site is located in an industrially zoned area, at the northeastern corner of the intersection of 20th Avenue and Solano Way (Figure 1). A detailed discussion of the site history is provided in P&D's Subsurface Investigation Work Plan dated January 7, 2009 (document 0405.W1).

FIELD ACTIVITIES

Prior to drilling, Alameda County Public Works Agency (ACPWA) drilling permit # W2009-0921 was obtained for borehole drilling, the drilling locations were marked with white paint, Underground Safety Alert was notified for buried utility location, and a health and safety plan was prepared. All drilling at borehole B10 and soil gas sample collection at location SG1 was performed on October 5, 2009. A description of field procedures and conditions encountered during sample collection are provided below.

Continuous Coring and Soil and Groundwater Sample Collection

On October 5, 2009, P&D personnel oversaw drilling at location B10 shown on Figure 2. Drilling was performed by Vironex, Inc. of Pacheco, California using GeoProbe direct push technology. Borehole B10 was continuously cored to a total depth of 35.0 feet below the ground surface (bgs), using a Geoprobe Macrocore barrel sampler lined with transparent PVC sleeves. The soil from the borehole was logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. The soil from the borehole was evaluated with a Photoionization Detector (PID) equipped with a 10.6 eV bulb and calibrated with a 100 ppm isobutylene standard. The soil was also evaluated for other evidence of petroleum hydrocarbon contamination such as odors, staining, and discoloration. No elevated PID values, odors, staining, or discoloration were detected in borehole B10. Copies of the boring logs are attached with this report as Appendix A.

A total of seven soil samples were collected from the borehole for laboratory analysis. The soil samples were retained from the transparent PVC sleeves in the following manner. Following removal of the liner from the sampler, the liner was evaluated for the amount of sample recovery, and a 6-inch long section of the liner was then cut at the depth corresponding to the desired sample collection depth. The ends of the selected liner sections were sequentially covered with aluminum foil and plastic end caps. The samples were then labeled and stored in a cooler

with ice, pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

Despite the expectation that groundwater would be encountered at a depth of approximately 25.0 feet bgs, groundwater was not encountered during drilling in borehole B10 until two hours after it had been drilled to a depth of 35.0 feet, at which time groundwater was measured in the borehole prior to sampling at a depth of 33.7 feet bgs.

The groundwater grab sample was collected from the continuously cored borehole using a temporary slotted PVC pipe and a polyethylene tube with a stainless steel check valve. The samples were placed into 40-milliliter VOAs preserved with hydrochloric acid and capped with Teflon-lined screw caps. All sample containers were clean and provided by the laboratory. The VOAs were overturned and tapped to ensure that no air bubbles were present. The samples were then stored in a cooler with ice, pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

All drilling and sampling equipment was either previously unused clean material, or was cleaned with an Alconox solution followed by a clean water rinse prior to use in each borehole. Following groundwater sample collection the borehole was filled with neat cement grout using a tremie pipe.

Soil Gas Sample Collection

Borehole SG1 was drilled inside the building office at 1200 20th Avenue (see Figure 2). The soil gas sample was collected using a temporary soil gas sampling well to collect a sub-slab soil gas sample from directly beneath the concrete floor slab. The temporary well was constructed by penetrating the 4-inch thick floor slab with a rotohammer and driving a hollow 1-inch diameter Geoprobe rod with an expendable tip to a depth of one foot below the top of the floor slab, dislodging the expendable tip, and then inserting a 3-foot length of 0.250-inch outside diameter (0.187-inch inside diameter) Teflon tube to the bottom of the hollow rod. Prior to inserting the Teflon tubing the lowermost 6 inches of the Teflon tube was perforated at several locations by notching the sides of the tube with a clean razor blade. A #2/16 Lonestar sack sand was then added to the annular space between the hollow rod and the Teflon tube as the hollow rod was withdrawn from the ground until the lowermost 8 inches of the hole was filled with sand. Granular bentonite (with grains the size of kitty litter) were placed in the annular space above the sand to the ground surface. The bentonite was hydrated and a 6-liter Summa purge canister and 1-liter Summa sample canister were then connected to the Teflon tubing using the configuration shown in Figure 3. Additionally, a tee was present in the sampling manifold, and an additional 1-liter Summa canister was connected to the tee for collection of a duplicate sample. At the time that the sampling manifold was assembled, the vacuum for the sample canister and the duplicate canister were checked with a

vacuum gauge and recorded. The temporary well was then undisturbed for a minimum of 30 minutes prior to purging for sample collection to allow soil gas equilibration.

Following the equilibration period and prior to purging the soil gas from the temporary soil gas well, a 10 minute leak check of the sampling manifold (including the duplicate tee in the manifold and the duplicate Summa canister) was performed by closing the valve located between the filter and the pressure gauge, opening the purge canister valve, and recording the manifold system vacuum (see Figure 3). No purge testing was done for determination of purge volumes was performed because no mobile laboratory was at the site. A default of three purge volumes was extracted prior to sample collection. The purge time was calculated using a nominal flow rate provided by the flow controller of 200 milliliters per minute. Purge volume calculations are provided in Appendix B of this report.

Following completion of purging three purge volumes, a tracer gas (2-Propanol) was placed in a dish adjacent to the purge canister and a clear Rubbermaid bin was placed over the top of the temporary well, the sampling manifold with the duplicate tee, and the two 1-liter Summa sample canisters. The vapor concentration of the 2-Propanol was monitored with a PID until 2-Propanol vapor concentrations appeared to have equilibrated. The Rubbermaid bin was then temporarily and partially lifted long enough to open the sample and duplicate canister valves and the bin was then replaced over the sampling equipment and the 2-Propanol vapor concentrations were then again monitored with the PID.

Following soil gas sample collection, a PID was connected to the Teflon tubing to obtain a preliminary field value for the sample collection location. No organic vapors were detected with the PID. A precipitation event did not occur on the day before or during the day of the efforts for soil gas sample collection. Measurements of vacuums, purging and equilibration time intervals, and PID readings were recorded on Soil Gas Sampling Data Sheets that are provided in Appendix B of this report. In addition, graphs showing weather conditions (temperature, wind direction, wind speed, and barometric pressure) for a weather station located approximately 2.2 miles to the east-northeast of the subject site are included in Appendix B. The graphs include information for the two weeks prior to the soil gas sample collection event on October 5, 2009, for the two weeks after the sample collection date, and for the day of the soil gas sample collection event.

All drilling rods and associated drilling fittings were cleaned with an Alconox solution wash and clean water rinse followed by a clean water rinse. New Teflon tubing was used for sample collection location. Clean, unused vacuum gages and stainless steel tee and valve assemblies were used for sample collection. Following soil gas sample collection and evaluation of the Teflon tubing with the PID, the Teflon tubing was removed from the temporary well and a solid

steel rod was driven through the bentonite and sand to the total depth of temporary soil gas well construction. The solid steel rod was then withdrawn and the hole filled with neat cement.

Drummed Waste Disposal

Soil generated during drilling was stored in a drum at the site pending characterization and disposal. On October 12, 2009 the drum of soil was removed from the site by Clearwater Environmental of Union City, California as non-hazardous waste with manifest number 7706. The drum was transported to the Alviso Independent Oil facility in Alviso, California pending disposal at a landfill. A copy of the uniform non-hazardous waste manifest documenting removal of the soil from the site is attached with this report as Appendix C.

GEOLOGY AND HYDROGEOLOGY

A detailed discussion of the site geology and hydrogeology is provided in P&D's Subsurface Invesitgation Work Plan dated January 9, 2009 (document 0405.W1), and P&D's Subsurface Investigation Report dated June 16, 2009 (document 0405.R4).

The subsurface materials encountered in borehole B10 consisted predominantly of silt to a depth of approximately 18.5 feet below the ground surface (bgs) with coarse-grained materials consisting of a 1-foot thick layer of silty sand and a 2.5-foot thick layer of clayey sandy gravel. These materials were underlain by clay to the total depth explored of 35.0 feet bgs, and included one clayey sand layer measuring 1 foot thick. Groundwater was not encountered during drilling in borehole B10 until two hours after it had been drilled to a depth of 35.0 feet, at which time groundwater was measured in the borehole prior to sampling at a depth of 33.7 feet bgs.

The subsurface materials encountered in borehole B10 are similar to the clayey materials encountered in boreholes SB-1 and SB-2, where groundwater was not encountered.

LABORATORY ANALYSIS

The soil and groundwater samples collected from the boreholes were analyzed at McCampbell Analytical, Inc. (McCampbell) in Pittsburg, California. McCampbell is a State-accredited hazardous waste testing facility.

All of the soil and groundwater samples were analyzed for TPH-G and MBTEX using EPA Method 5030B in conjunction with EPA Method 8021B and modified EPA Method 8015B.

The soil sample results are summarized in Table 1, and the groundwater sample results are summarized in Table 2. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report as Appendix D.

The soil gas sample SG1 and the sample duplicate SG1-DUP were analyzed at Air Toxics Limited of Folsom, California for TPH-G using modified EPA Method TO-3 and for MTBE, BTEX, naphthalene, 1,2-DCA and the tracer gas 2-propanol by modified EPA Method TO-15. The soil gas sample results are summarized in Table 3. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report as Appendix D.

SOIL GAS RISK AND HAZARD EVALUATION

The SFRWQCB May 2008 Environmental Screening Level (ESL) guidance document "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater" section 2.7 references the DTSC Vapor Intrusion guide (Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, revised February 7, 2005) for interpretation of sample results exceeding ESLs. The ESL Guidance document indicates that the recommended approach of DTSC for sensitive land use scenarios (i.e.- residential) is appropriate. The DTSC guidance document ("Guidance For The Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air" revised February 7, 2005) recommends that if look up table screening levels are exceeded, that a site-specific evaluation of the site be conducted using appropriate fate and transport modeling (Step 7 in the guidance document). DTSC recommends that the USEPA version of the Johnson and Ettinger (JE) model be used (USEPA Vapor Intrusion Model, 2003). The DTSC has developed a California-specific spreadsheet for calculation of risk and hazard associated with exposure to chemicals which include the VOCs encountered in the soil gas samples collected during the current investigation. The DTSC has most recently updated the spreadsheet on February 4, 2009.

The February 2009 DTSC spreadsheet was used to calculate the risk and hazard index associated with the soil gas sample results for the current investigation. Evaluation of hazard associated with TPH-G using the DTSC JE model spreadsheet is not possible because TPH-G is not one of the chemicals available in the chemical properties lookup table for use in the model. Additionally, TPH is not considered a carcinogen, and it is therefore not possible to calculate risk for TPH-G. The risk and hazard were calculated using spreadsheet default values, except averaging time for noncarcinogens and exposure duration were changed from 30 to 25 years for a commercial/industrial exposure scenario, and exposure frequency changed from 350 to 250 days a year for a commercial/industrial exposure scenario, the soil gas sampling depth (in centimeters) was changed from 152.4 to 15, and a soil type of silt (SI) was used.

The modeled cumulative risk and hazard for indoor air for the commercial structure at 1200 20th Avenue were evaluated by using the highest concentration for each detected chemical from all of the samples and duplicate samples (SG1, SG1-DUP, and SG1-Lab Duplicate). The DTSC vapor intrusion model spreadsheet output results along with the calculated cumulative risk and hazard for the highest concentration scenario are summarized in Table 4. The model input, intermediate calculation and output sheets for each calculation are attached with this report as Appendix E. Table 4 shows that the cumulative hazard quotient was calculated to be less than one and the cumulative risk was calculated to be 0.18 per million for the highest concentration exposure scenario. Review of the weather data in Appendix B shows that barometric pressure on the day of sample collection was relatively constant, ranging from approximately 1010 to 1015 hectopascals (hPa). Similarly, the available barometric pressure information in Appendix B for the week preceding and following the day of the soil gas sample collection (October 5, 2009) shows that barometric pressure ranged from approximately 1006 to 1019 hPa.

DISCUSSION AND RECOMMENDATIONS

Geologic cross section B-B' was extended to include sample collection locations SG1 and B10. The location of B-B' is shown in Figure 2. The geology of B-B' is shown in Figure 4, and TPH-G and benzene concentrations in soil are shown in Figures 5 and 6, respectively. Review of Figure 4 shows that the extent of coarse-grained deposits encountered between MW-1 and MW-3 is limited in extent and is that these coarse-grained deposits are almost completely absent in the vicinity of B10. Review of the soil sample results in Table 1 and Figures 5 and 6 shows that no petroleum hydrocarbons were detected in soil samples collected from borehole B10, and that the extent of petroleum hydrocarbons detected in the sidewall of the former UST pit are limited in extent and have been defined.

Figures 7 and 8 show TPH-G and benzene concentrations in groundwater at and near the subject site, respectively. Review of the groundwater sample results in Table 2 and Figues 7 and 8 show that no petroleum hydrocarbons were detected in groundwater in borehole B10. The extent of petroleum hydrocarbons in groundwater shown on Figures 7 and 8 is conservative based on the known locations of sample concentrations surrounding the former UST pit (MW-3, B6, B10, and B7, and the absence of groundwater or evidence of the presence of petroleum hydrocarbons in SB-1 and SB-2). However, the actual extent of petroleum hydrocarbons in groundwater appears to be limited to coarse-grained materials at locations MW-1 and B3 in the immediate vicinity of the former UST pit, and is believed to be smaller in extent than shown by the isoconcentration contours on Figures 7 and 8.

Review of the soil gas sample results in Table 3 shows that none of the detected compounds in the soil gas sample, the duplicate sample, or the laboratory duplicate sample analysis for the sample collected from immediately beneath the building floor slab at a distance of approximately 5 feet

from the former UST pit exceed their respective May 2008 Table E soil gas vapor intrusion concern concentrations for either residential or commercial/industrial land use scenarios. Review of Table 4 shows that the cumulative hazard quotient was calculated to be less than one and the cumulative risk was calculated to be 0.18 per million for the highest concentration exposure scenario.

Based on review of SFRWQCB January 5, 1996 low risk case closure criteria for fuel sites, P&D recommends that a low risk case closure be issued for the site for the following reasons.

1) Primary source abatement was performed by removing the USTs and excavating petroleum-impacted soil from the bottom of the UST pit.
2) The site has been adequately characterized for soil and groundwater, and potential preferential pathways have been evaluated (utility trenches and buried stream channels). The subsurface evaluation in the vicinity of the site does not indicate that preferential movement of petroleum hydrocarbons is occurring in either soil or groundwater.
3) Historic water quality monitoring summarized in P&D's Subsurface Invesitgation Work Plan dated January 9, 2009 (document 0405.W1) shows that petroleum hydrocarbon concentrations have decreased to below detectable concentrations in wells MW2 and MW3, and soil borings have shown that the extent of petroleum hydrocarbons in soil and groundwater is limited in extent to the immediate vicinity of the former UST pit.
4) The limited extent of petroleum hydrocarbons in groundwater shows that no water wells, deeper drinking water aquifers, surface water or other sensitive receptors are not likely to be impacted.
5) The results of the soil gas sample SG1 collected from adjacent to the former UST pit from immediately below the building floor slab show that residual petroleum hydrocarbons at the site do not pose a hazard or risk to human health. Additionally, the low flow soil gas collection conditions encountered below the building floor slab at depths of 5 and 10 feet inside the building adjacent to the former UST pit (see P&D's Subsurface Investigation Report dated June 16, 2009 (document 0405.R4)) indicate that subsurface conditions at depths of 5 and 10 feet below the building floor slab do not readily allow soil vapor movement from the vicinity of the UST pit to beneath the building.
6) The site does not present a significant risk to the environment because the limited extent of petroleum hydrocarbons in groundwater does not have the potential to significantly impact surface water, wetlands, or other sensitive receptors.

DISTRIBUTION

A copy of this report should be uploaded to the ACDEH ftp website with a letter on company letterhead identifying the contact information for the responsible party. In addition, a copy of this report should also be uploaded to the GeoTracker website.

LIMITATIONS

This report was prepared solely for the use of J.W. Silveira Realty. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

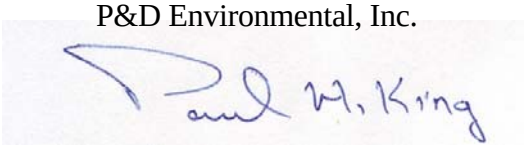
This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

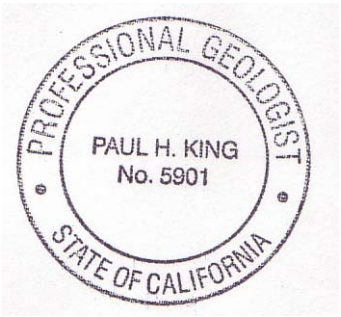
This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.





Paul H. King
President
California Professional Geologist #5901
Expires: 12/31/09

Attachments:

Table 1 - Summary of Soil Analytical Results
Table 2 - Summary of Borehole Groundwater Analytical Results
Table 3 - Summary of Soil Gas Sample Analytical Results
Table 4 - Summary of Calculated Vapor Intrusion Risk and Hazard

Figure 1 - Site Location Map
Figure 2 - Site Vicinity Map Detail Showing Sample Collection and Geologic Cross Section Locations
Figure 3 - Typical Soil Gas Sample Collection Manifold
Figure 4 - Geologic Cross Section B-B'
Figure 5 - Geologic Cross Section B-B' Showing TPH-G Concentrations in Soil
Figure 6 - Geologic Cross Section B-B' Showing Benzene Concentrations in Soil
Figure 7 - Site Vicinity Map Detail Showing TPH-G Concentrations in Groundwater
Figure 8 - Site Vicinity Map Detail Showing Benzene Concentrations in Groundwater

Appendix A - Soil Boring Logs
Appendix B - Soil Gas Purge Volume Calculations, Soil Gas Sampling Data Sheets, and Weather Data
Appendix C - Soil Disposal Manifest
Appendix D - Laboratory Analytical Reports and Chain of Custody Documentation
Appendix E – Soil Gas Risk and Hazard Calculation Work Sheets

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TABLES

Table 1. Summary of Soil Analytical Results

Sample ID	Sample Date	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes
B10-4.5	10/5/2009	ND<1.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B10-9.5	10/5/2009	ND<1.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B10-14.5	10/5/2009	ND<1.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B10-19.5	10/5/2009	ND<1.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B10-24.5	10/5/2009	ND<1.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B10-29.5	10/5/2009	ND<1.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B10-34.5	10/5/2009	ND<1.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
ESL [1]		*83*	*0.023*	*0.044*	*2.9*	*2.3*	*2.3*
ESL [2]		*83*	*0.023*	*0.044*	*2.9*	*3.3*	*2.3*
ESL [3]		*83*	*0.023*	*0.044*	*2.9*	*3.3*	*2.3*
ESL [4]		*83*	*0.023*	*0.044*	*2.9*	*3.3*	*2.3*

Abbreviations and Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

MTBE = Methyl tertiary-butyl ether

ND = Not detected.

ESL[1] = Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A – Shallow Soil Screening Levels, Groundwater is a current or potential source of drinking water. Residential Land Use.

ESL[2] = Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A – Shallow Soil Screening Levels, Groundwater is a current or potential source of drinking water. Commercial/Industrial Land Use.

ESL[3] = Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table C – Deep Soil Screening Levels, Groundwater is a current or potential source of drinking water. Residential Land Use.

ESL[4] = Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table C – Deep Soil Screening Levels, Groundwater is a current or potential source of drinking water. Commercial/Industrial Land Use.

Results in micrograms per liter (µg/L) unless otherwise specified.

Table 2. Summary of Borehole Groundwater Analytical Results

Sample ID	Sample Date	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes
B10-W	10/5/009	ND<1.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
ESL		*100*	*5.0*	*1.0*	*40*	*30*	*20*

Abbreviations and Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

MTBE = Methyl tertiary-butyl ether

ND = Not detected.

ESL = Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A – Shallow Soil Screening Levels, Results in micrograms per liter (µg/L) unless otherwise specified.

Table 3. Summary of Soil Gas Sample Analytical Results

Sample ID	Sample Date	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylenes	1,2-DCE	Naphthalene	2-Propanol
SG1	10/5/009	1,700	ND<4.8	9.5	42	8.5	33	12	ND<5.3	ND<28	ND<13
SG1-DUP	10/5/009	1,500	ND<4.8	9.2	45	7.5	34	12	ND<5.3	ND<28	16
SG1 Lab Duplicate		1,600	ND<4.8	10	39	8.1	32	12	ND<5.3	ND<28	ND<13
ESL [1]		*10,000*	*9,400*	*84*	*63,000*	*980*	*m, p, o xylenes 21,000 combined*		94	72	None
ESL [2]		*29,000*	*31,000*	*280*	*180,000*	*3,300*	*m, p, o xylenes58,000 combined*		310	240	None

Abbreviations and Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline
MTBE = Methyl tertiary-butyl ether
1,2-DCA = 1,2-Dichloroethane
2-Propanol = used as a leak detector during soil gas sample collection.
ND = Not detected.
ESL[1] = Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table E – Indoor Air and Soil Gas (Vapor Intrusion Concerns) , residential land use.
ESL[2] = Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table E – Indoor Air and Soil Gas (Vapor Intrusion Concerns) , commercial/industrial land use.
Results in micrograms per cubic meter ($\mu g/m^3$) unless otherwise specified.

Report 0405.R5 Table 4
Summary of Calculated Vapor Intrusion Risk and Hazard
Cal/EPA Screening-Level Model
for Soil Gas Contamination (last modified 2/4/2009)
William Wurzbach Company
1200 20th Avenue
Oakland, CA

Chemical	Sample Location	Concentration (µg/m3)	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)	CAS#
Highest Concentration					
Benzene	10	SG1 Lab Duplicate	1.7E-07	5.5E-04	71432
Toluene	45	SG1-DUP	NA	2.5E-04	108883
Ethylbenzene	8.5	SG1	1.3E-08	1.4E-05	100414
m,p-Xylene	34	SG1-DUP	NA	5.6E-04	106423
o-Xylene	12	SG1	NA	2.0E-04	95476
TPH-G	1,700	SG1	Unknown	Unknown	None
		TOTAL	1.8E-07	1.6E-03	

NOTES:
TPH-G = total petroleum hydrocarbons as gasoline.
NA = Not Applicable.
For highest concentration analysis the highest concentration for each chemical from all samples and duplicates was used.
When duplicate sample results were available, the highest concentration, from either the sample or the duplicate was used.
Used p-xylene CAS # for m,p-xylene risk and hazard calculation.
JE spreadsheet default values were used with following exceptions:
• Used vadose zone SCS soil type SI for silt.
• Averaging time for noncarcinogens changed from 30 to 25 years for commercial land use scenario.
• Exposure duration changed from 30 to 25 years for commercial land use scenario.
• Exposure frequency changed from 350 to 250 days a year for commercial land use scenario.

FIGURES

Figure 1
Site Location Map
William Wurzbach Company
1200 20th Avenue
Oakland, California

N

Base Map From:
U.S.Geological Survey
Oakland East and
Oakland West, California
7.5 Minute Quadrangles
Photorevised 1980

P&D Environmental, Inc.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610

0 1,000 2,000
SCALE IN FEET

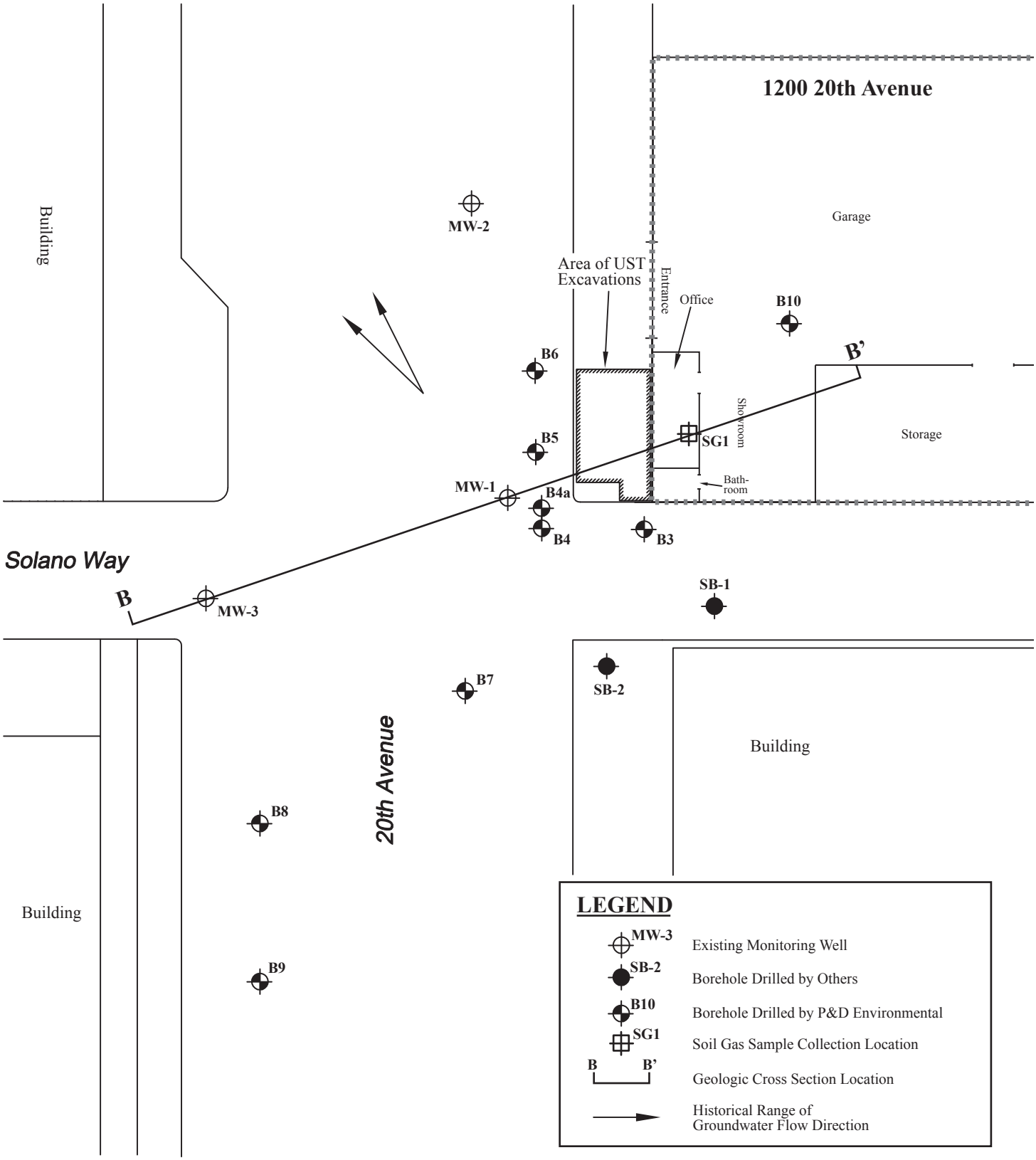
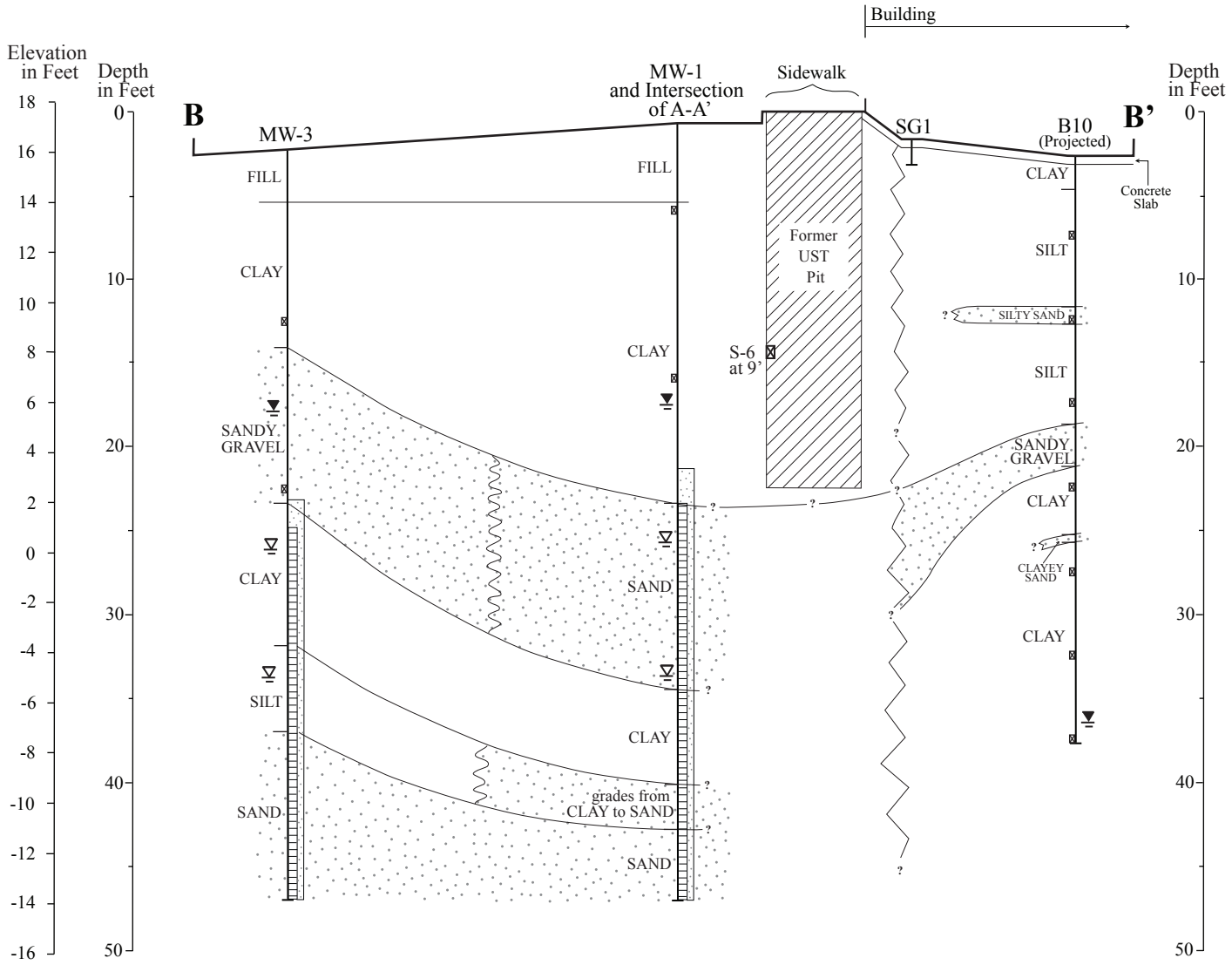


Figure 2
Site Vicinity Map Detail Showing Sample Collection
and Geologic Cross Section Locations
William Wurzbach Company
1200 20th Avenue
Oakland, California

N

Base Map From:	P&D Environmental, Inc.	0 10 20
Tetra Tech EM Inc. Site Location Map	55 Santa Clara Avenue, Suite 240 Oakland CA 94610	SCALE IN FEET

Figure 3
Typical Soil Gas Sample Collection Manifold
William Wurzbach Company
1200 20th Avenue
Oakland, California



LEGEND

- Screened Interval of Well, with Sand Pack
- Soil Sample Analysis Interval
- Coarse-Grained Soils
- Former UST Pit
- Historical Range of Water Levels Prior to 2002
- Historical High Water Level After 2002

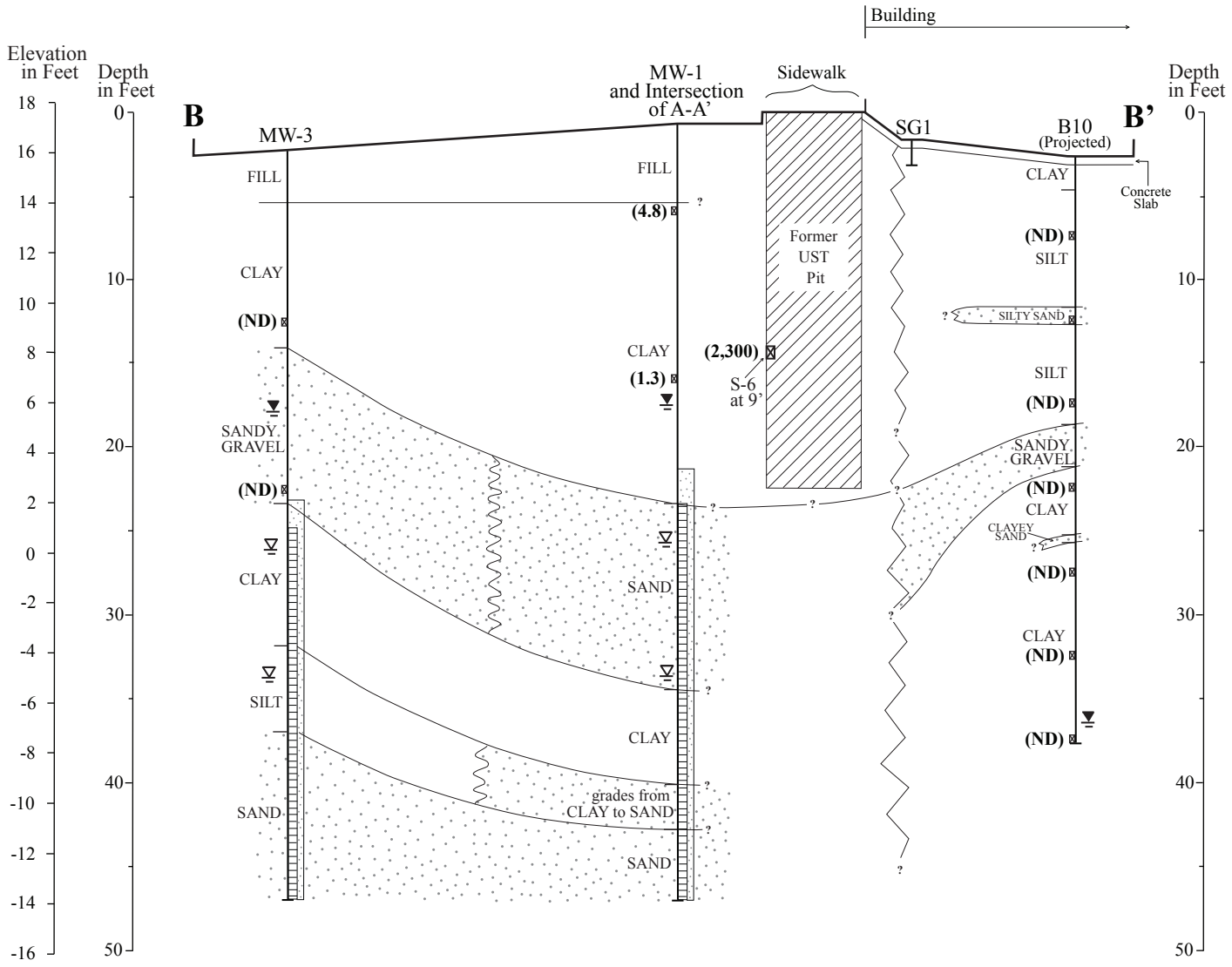
Horizontal Scale in Feet: 0, 10, 20

Vertical Scale in Feet: 0, 3, 6

3x Vertical Exaggeration

Figure 4
Geologic Cross Section B-B'
William Wurzbach Company
1200 20th Avenue
Oakland, California

P&D Environmental, Inc.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610



LEGEND

(2,300)	TPH-G Concentration in Soil (mg/Kg)
ND	Not Detected
- - -	TPH- G Soil Isoconcentration Contour
	Screened Interval of Well, with Sand Pack
	Soil Sample Analysis Interval
	Coarse-Grained Soils
	Former UST Pit
	Historical Range of Water Levels Prior to 2002
	Historical High Water Level After 2002

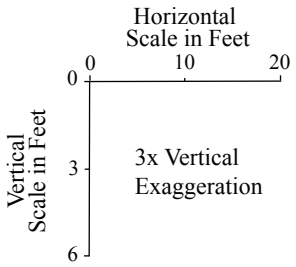
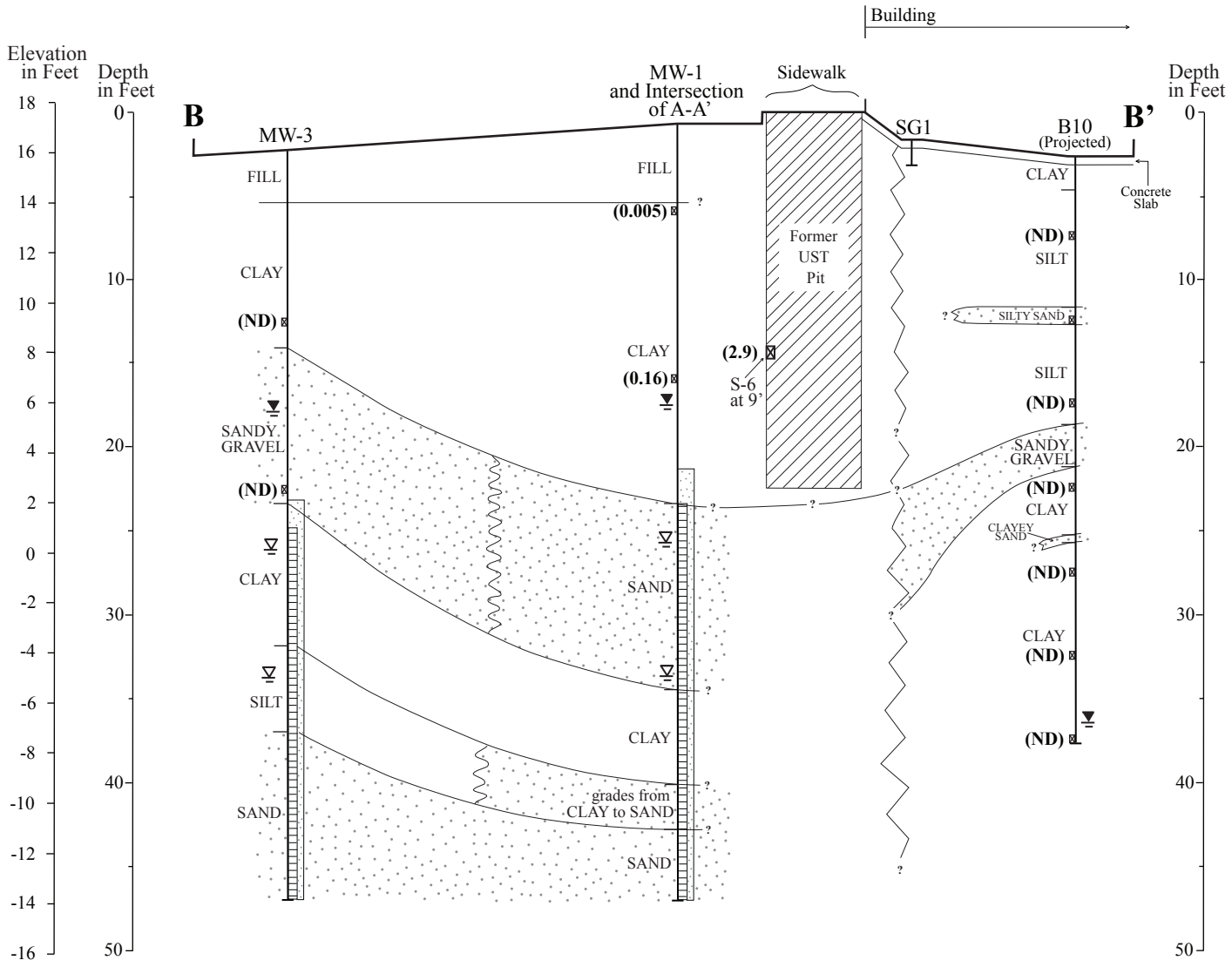


Figure 5
Geologic Cross Section B-B' Showing TPH-G Concentrations in Soil
William Wurzbach Company
1200 20th Avenue
Oakland, California

P&D Environmental, Inc.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610



LEGEND

(2.9)	Benzene Concentration in Soil (mg/Kg)
ND	Not Detected
- - -	Benzene Soil Isoconcentration Contour
	Screened Interval of Well, with Sand Pack
	Soil Sample Analysis Interval
	Coarse-Grained Soils
	Former UST Pit
	Historical Range of Water Levels Prior to 2002
	Historical High Water Level After 2002

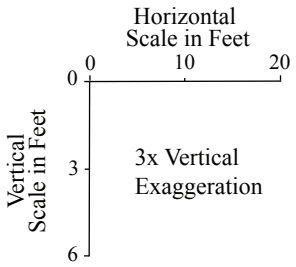


Figure 6
Geologic Cross Section B-B' Showing Benzene Concentrations in Soil
William Wurzbach Company
1200 20th Avenue
Oakland, California

P&D Environmental, Inc.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610

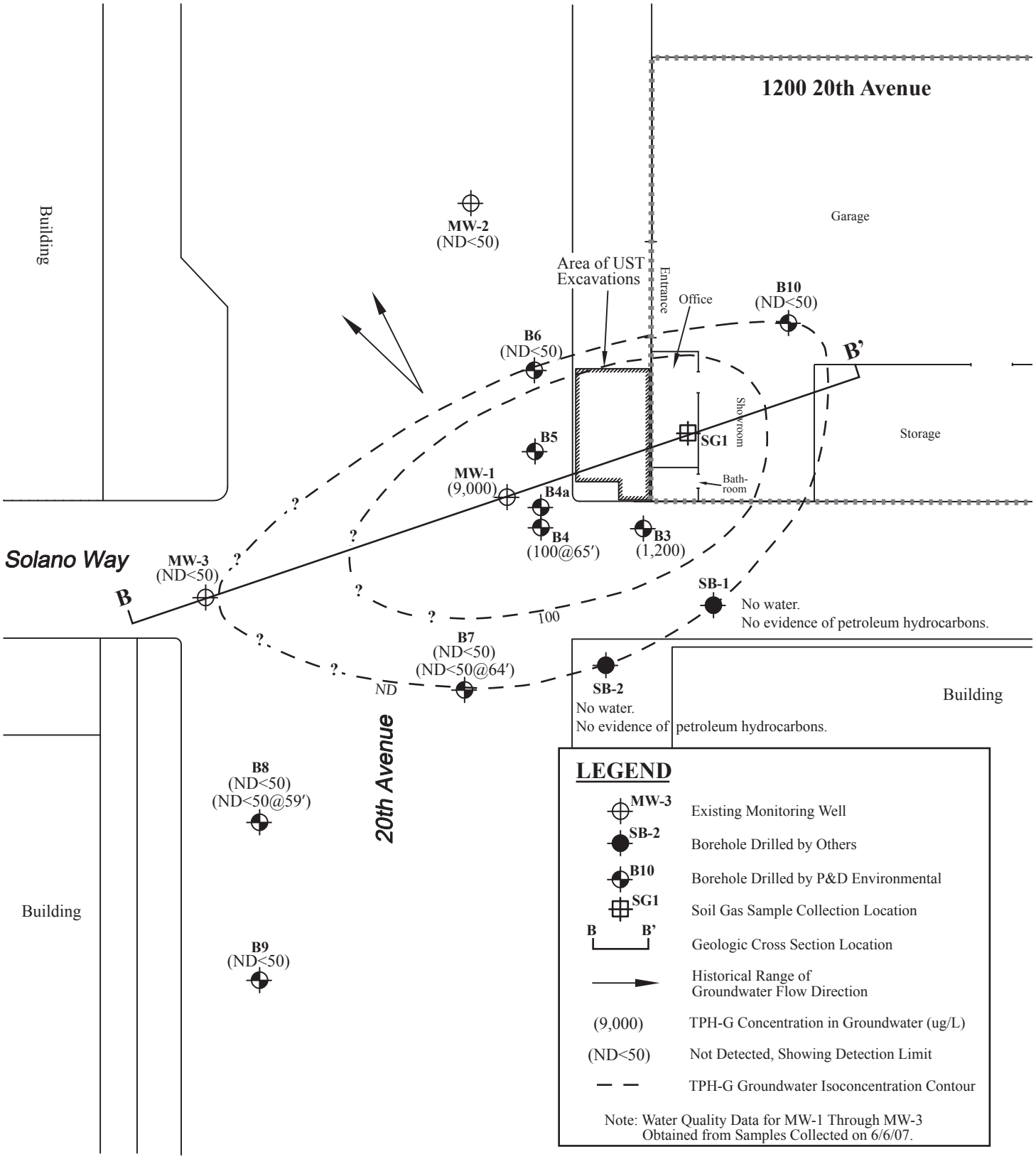


Figure 7
Site Vicinity Map Detail Showing TPH-G Concentrations in Groundwater
William Wurzbach Company
1200 20th Avenue
Oakland, California

N

Base Map From: Tetra Tech EM Inc. Site Location Map	P&D Environmental, Inc. 55 Santa Clara Avenue, Suite 240 Oakland CA 94610	0 10 20 SCALE IN FEET

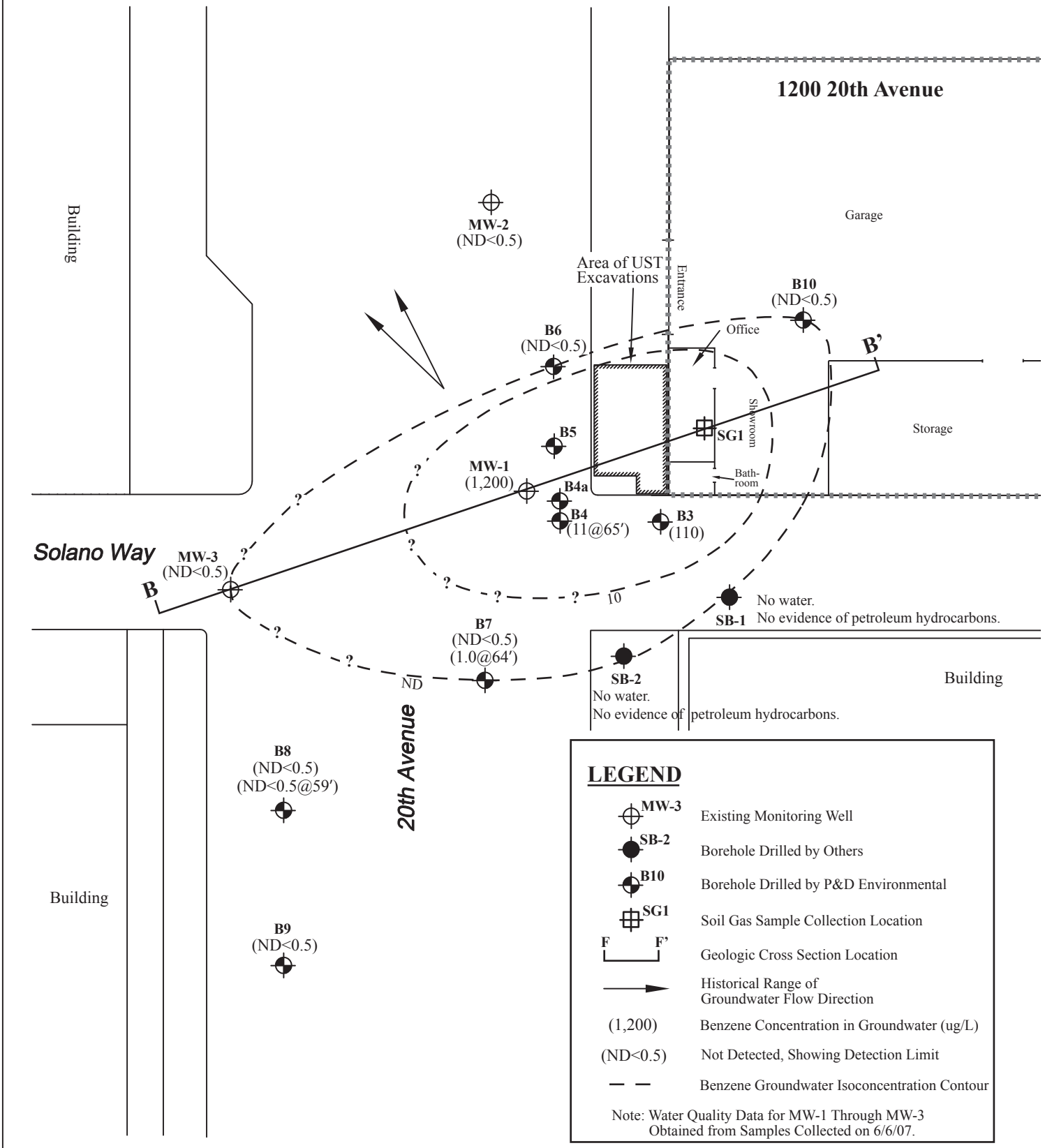


Figure 8
Site Vicinity Map Detail Showing Benzene Concentrations in Groundwater
William Wurzbach Company
1200 20th Avenue
Oakland, California

N

Base Map From: Tetra Tech EM Inc. Site Location Map	P&D Environmental, Inc. 55 Santa Clara Avenue, Suite 240 Oakland CA 94610	0 10 20 SCALE IN FEET

APPENDIX A

Soil Boring Logs

P&D ENVIRONMENTAL, INC.

BORING NO.: B10	PROJECT NO.: 0405.R5	PROJECT NAME: William Wurzbach Co., 1200 20th Ave., Oakland	
BORING LOCATION: Inside garage, approximately 20 ft. from garage entrance		ELEVATION AND DATUM: None	
DRILLING AGENCY: Vironex, Inc.	DRILLER: Justin	DATE & TIME STARTED: 10/5/09 0830	DATE & TIME FINISHED: 10/5/09 1000
DRILLING EQUIPMENT: Geoprobe 6600			
COMPLETION DEPTH: 35.0 Feet	BEDROCK DEPTH: Not Encountered	LOGGED BY: MLD	CHECKED BY:
FIRST WATER DEPTH: Not Encountered	NO. OF SAMPLES: 7 Soil, 1 Water		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	0.0 to 0.5 ft. Concrete (1-in.) and base rock.		No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler lined with 4.8-foot long 1.5-inch O.D. transparent PVC sleeves.
	0.5 to 2.0 ft. Olive-brown clay (CL); medium stiff, moist, with black mottling. No Petroleum Hydrocarbon (PHC) odor.	CL				
	2.0 to 9.0 ft. Olive-brown silt (ML); medium stiff, moist, with minor coarse sand and trace angular gravel to 0.5-in. diameter, and black mottling. No PHC odor.	ML	B10-4.5		0	0 to 5 ft. 4.6 ft. recovery
5	5.0 to 6.0 ft. Increased sand content.					5 to 10 ft. 4.8 ft. recovery
	9.0 to 10.0 ft. Orange-brown silty sand (SM); medium dense, moist, with minor angular gravel to 0.25-in. diameter. No PHC odor.	SM	B10-9.5		0	
10	10.0 to 16.0 ft. Olive-brown silt (ML); stiff, moist, with some coarse sand, and black mottling. No PHC odor.	ML				10 to 15 ft. 4.8 ft. recovery
15			B10-14.5		0	15 to 20 ft. 4.8 ft. recovery
	16.0 to 18.5 ft. Clayey sandy gravel (GC); moist, with angular gravel to 0.5-in. diameter. No PHC odor.	GC				
	18.5 to 22.5 ft. Olive-brown silty clay (CL); stiff, moist, with some angular gravel to 0.5-in. diameter, and orange and black mottling. No PHC odor.	CL	B10-19.5		0	
20						20 to 25 ft. 4.6 ft. recovery
	22.5 to 23.5 ft. Brown clayey fine sand (SC); medium dense, moist. No PHC odor.	SC				
	23.5 to 35.0 ft. Olive-brown clay (CL); very stiff, moist, with black mottling. No PHC odor.	CL	B10-24.5		0	
25						25 to 30 ft. 4.8 ft. recovery
30			B10-29.5		0	

(Continued on page 2.)

P&D ENVIRONMENTAL, INC.

BORING NO.: B10	PROJECT NO.: 0405.R5	PROJECT NAME: William Wurzbach Co., 1200 20th Ave., Oakland	
BORING LOCATION: Inside garage, approximately 20 ft. from garage entrance		ELEVATION AND DATUM: None	
DRILLING AGENCY: Vironex, Inc.	DRILLER: Justin	DATE & TIME STARTED: 10/5/09 0830	DATE & TIME FINISHED: 10/5/09 1000
DRILLING EQUIPMENT: Geoprobe 6600			
COMPLETION DEPTH: 35.0 Feet	BEDROCK DEPTH: Not Encountered	LOGGED BY: MLD	CHECKED BY:
FIRST WATER DEPTH: Not Encountered	NO. OF SAMPLES: 7 Soil, 1 Water		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	(Continued from page 1.) 23.5 to 35.0 ft. Olive-brown clay (CL); very stiff, moist, with black mottling. No PHC odor.	CL	No Well Constructed		0	30 to 35 ft. 4.8 ft. recovery
		▼				Water not encountered during drilling.
35		x	B10-34.5		0	Borehole terminated at 35.0 ft. on 10/5/09. Temporary 1-in. diameter slotted PVC casing placed in borehole. Borehole dry at 1000. Water level measured at 33.9 ft. at 1030, and at 33.7 ft. at 1053. Water sample B10-W collected at 1100; 3 VOA containers collected. Borehole grouted on 10/5/09 using a tremie pipe and neat cement grout.

APPENDIX B

Soil Gas Purge Volume Calculations, Soil Gas Sampling Data Sheets, And Weather Data

Report 0405.R5
Appendix B
3 feet tubing, 8 inch sand interval

Soil Gas Purge Volume Calculations

One Purge Volume is calculated as the volume of the tubing interior plus the volume of the sand interval of the borehole.

The tubing interior volume is calculated as follows:

V tubing = pi x (r x r) x h, where pi = 3.14, r = 0.187 in./2, and h = 3 ft.

V tubing = 3.14 x (0.0935 x 0.0935) x (3 ft. x 12 in./ft.) =	0.99	cubic inches.

The sand interval volume is calculated as follows:

V sand interval = pi x (r x r) x h x porosity, where pi = 3.14, r = 1.0 in./2, h = 8 in., and porosity = 0.35

V sand interval = 3.14 x (0.5 x 0.5) x 8 x 0.35 =	2.20	cubic inches.

The total volume for one purge volume is V tubing + V sand interval, where

V total = 0.99 cubic inches + 2.20 cubic inches =	3.19	cubic inches.

To convert to cubic centimeters:

V total = 3.19 cubic inches x 16.39 cubic centimeters/cubic inches =	52.2	cubic centimeters.

The total volume to be purged is 3 purge volumes.

V purge total = 52.2 cubic centimeters x 3 =	157	cubic centimeters.

The flow controller has a nominal flow rate of 200 cubic centimeters per minute.

The purge time is calculated as follows:

T purge = 157 cubic centimeters/200 cubic centimeters per minute =	0.78	minutes.
Converting the purge time to seconds, 0.78 minutes x 60seconds/ minute =	47	seconds.

SOIL GAS SAMPLING DATA SHEET

Address 1200 20th AVE., OAKLAND

Job # 0405

Date 10/5/09

P&D Sampler MLD

Drilling Company VIRONEX

Probe Method (check one)
o PRT
x Temp Well

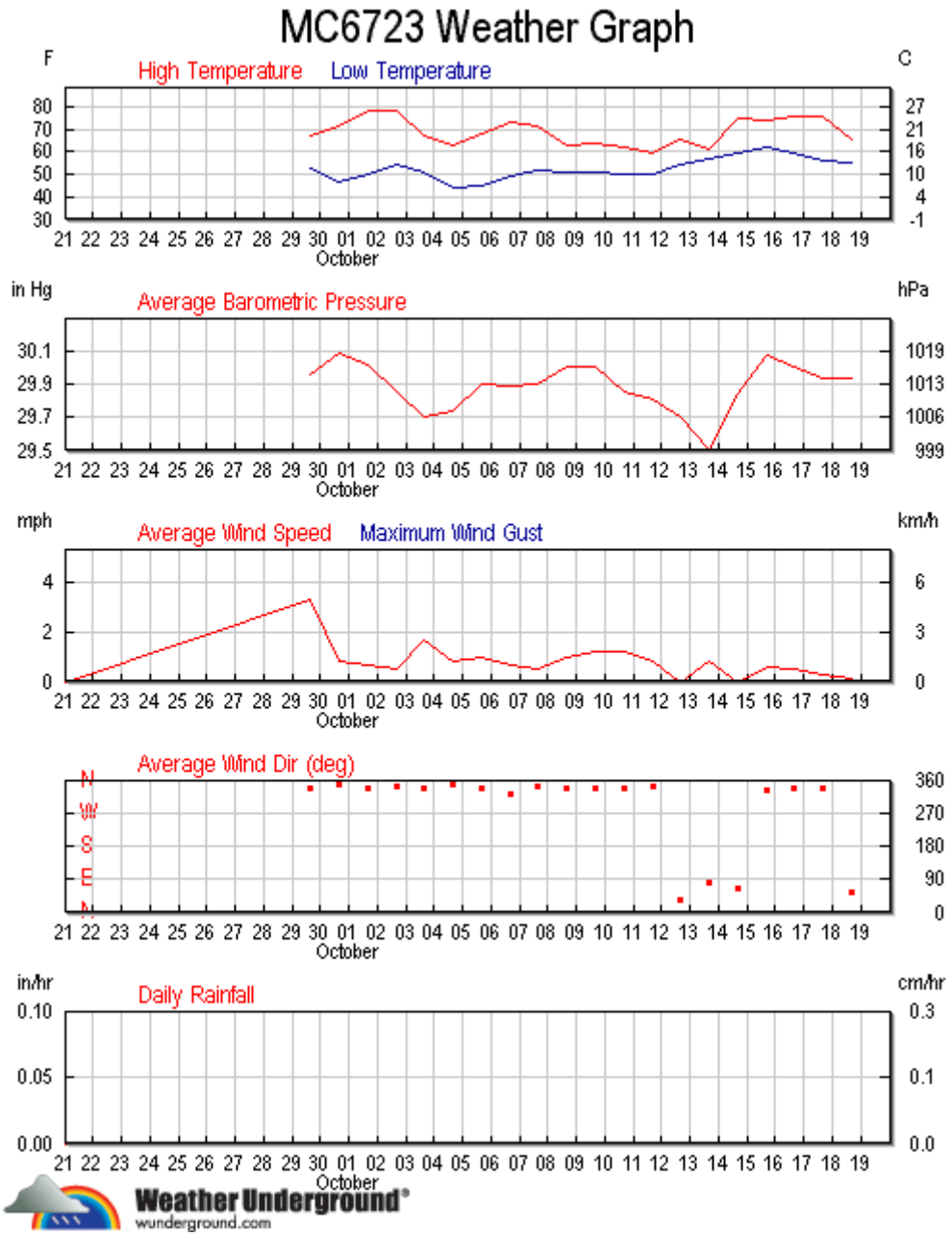
Soil Gas Location Designation	Probe Depth (Ft.)	Time Probe Installed	Canister #	Sample Canister Initial Vacuum Check (In. Hg) and time	Start leak check vacuum (In. Hg) and time	End leak check vacuum (In. Hg) and time	ADDITIONAL leak check vacuum (In. Hg) and time	Start PURGE time	End PURGE time	Start of tracer gas equilibration time	Time and conc. (ppm) of tracer gas equilibration	Begin sample collection vacuum (In. Hg) and time	End sample collection vacuum (In. Hg) and time	NOTES
SG 1	1	1026	12373	vac -30	vac -26	vac -26	vac				conc. 42	vac -26	vac -5	
				time 1120	time 1130	time 1140	time	time 114300	time 114347	time 1144	time 1149	time 115100	time 120330	0 PPM 12:06:14
SG 1			34107	vac	vac	vac	vac				conc.	vac	vac	
DUP				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	
SG				vac	vac	vac	vac				conc.	vac	vac	
				time	time	time	time	time	time	time	time	time	time	

http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=MC6723&graphspan=custom&month=9&day=21&year=2009&monthend=10&dayend=19&yearend=2009

Location = **Lat:** N 37 ° 47 ' 44 " (37.796 °) **Lon:** W 122 ° 12 ' 10 " (-122.203 °) **Elevation (ft):** 200

September 21 2009 - TO - October 19 2009 Go

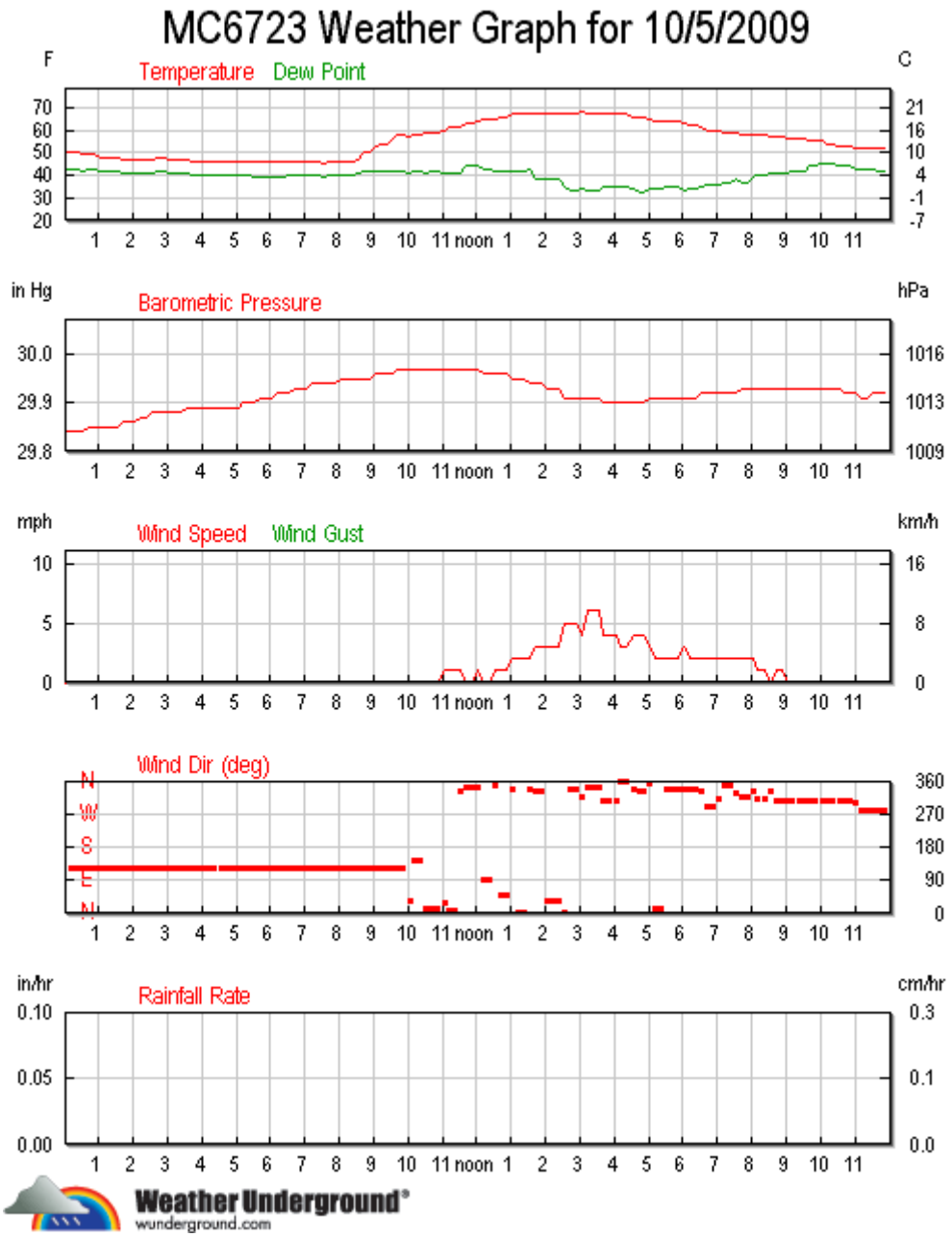
	High:	Low:	Average:
Temperature:	**90.0** °F	**44.0** °F	**62.0** °F
Dew Point:	**64.0** °F	**-99.9** °F	**49.9** °F
Humidity:	93.0%	16.0%	68.2%
Wind Speed:	**9.0**mph from the WNW	-	**0.7**mph
Wind Gust:	**0.0**mph from the North	-	-
Wind:	-	-	WNW
Pressure:	**30.18**in	**29.36**in	-
Precipitation:	**0.00**in		



Weather Underground
wunderground.com

October 5 2009 View Next Day »

	Current:	High:	Low:	Average:
Temperature:	**55.0** °F	**68.0** °F	**45.0** °F	**55.6** °F
Dew Point:	**47.0** °F	**45.0** °F	**32.0** °F	**39.8** °F
Humidity:	73%	81%	28%	59%
Wind Speed:	**0.0**mph	**6.0**mph	-	**1.0**mph
Wind Gust:	**0.0**mph	**0.0**mph	-	-
Wind:	NW	-	-	NNW
Pressure:	**30.15**in	**29.97**in	**29.84**in	-
Precipitation:	**0.00**in			



APPENDIX C

Soil Disposal Manifest

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

2. Page 1 of 1

3. Document Number 7706

GENERATOR

4. Generator's Name and Mailing Address

William Warzbuch Company
1200 20th Ave
Oakland, CA 94606

Generator's Phone

5. Transporter Company Name | 6. US EPA ID Number

CLEARWATER ENVIRONMENTAL | CAR000007013

7. Transporter Phone

(510) 476-1740

8. Designated Facility Name and Site Address | 9. US EPA ID Number

ALVISO INDEPENDENT OIL
5002 ARCHER STREET
ALVISO, CA 95002 | CAL000161743

10. Facility's Phone

(510) 476-1740

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-Hazardous waste - Solid	001	dm	100	P
b.				

15. Special Handling Instructions and Additional Information

Wear PPE
Emergency Contact
(510) 476-1740
Attn: Kirk Hayward

Handling Codes for Wastes Listed Above

11a.	11b.

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to state or federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Signed on behalf of Generator | Signature | Month 10 | Day 12 | Year 09

TRANSPORTER

17. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name: William Clark | Signature | Month 10 | Day 12 | Year 09

FACILITY

18. Discrepancy Indication Space

19. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 18.

Printed/Typed Name: Charles Seaton | Signature | Month 10 | Day 13 | Year 09

WHITE – ORIGINAL (Return to Generator) YELLOW – TSDF (Retain Copy) PINK – TRANSPORTER COPY GOLDENROD – GENERATOR'S COPY

APPENDIX D

Laboratory Analytical Report and Chain of Custody Documentation

- **McCampbell Work Order # 0910088 Borehole B10 Soil**
- **McCampbell Work Order # 0910091 Borehole B10 Groundwater**
- **Air Toxics Work Order # 0910197_B Soil Gas SG1 and SG1-DUP modified TO-3 for TPH-G**
- **Air Toxics Work Order # 0910197_A Soil Gas SG1 and SG1-DUP modified TO-15 for VOCs including MBTEX, 1,2-DCA, and Naphthalene**

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

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0405; J.W. Silveira	Date Sampled: 10/05/09
		Date Received: 10/05/09
	Client Contact: Paul King	Date Reported: 10/08/09
	Client P.O.:	Date Completed: 10/07/09

WorkOrder: 0910088

October 08, 2009

Dear Paul:

Enclosed within are:

1) The results of the **7** analyzed samples from your project: **#0405; J.W. Silveira,**
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.

P & D ENVIRONMENTAL, INC.
55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

0910088

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER: 0405

PROJECT NAME: J.W. SILVEIRA 1200 20th AVE. OAKLAND, CA

SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES Michael Deschenes

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH(G) AND MBTEX BY EPA 8021B	PRESERVATIVE	REMARKS
B10-4.5	10/5/09	0840	Soil		1	X	ICE	NORMAL TURN AROUND
B10-9.5		0845			1	X		
B10-14.5		0850			1	X		
B10-19.5		0855			1	X		
B10-24.5		0900			1	X		
B10-29.5		0915			1	X		
B10-34.5		0940			1	X		

ICE / °C 6.0C
GOOD CONDITION ✓ APPROPRIATE
HEAD SPACE ABSENT ___ CONTAINERS ✓
DECHLORINATED IN LAB ___ PRESERVED IN LAB ___
PRESERVATION ___ VOAS | O & G | METALS | OTHER

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Michael Deschenes	10/5/09	17	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
	10/5/09	1715	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

TOTAL NO. OF SAMPLES (THIS SHIPMENT): 7
TOTAL NO. OF CONTAINERS (THIS SHIPMENT): 7
LABORATORY: McCAMPBELL ANALYTICAL
LABORATORY CONTACT: ANGELA RYDELIUS
LABORATORY PHONE NUMBER: (877) 252-9262
SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO

Results and billing to:
P&D Environmental, Inc.
lab@pdenviro.com

REMARKS:

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0910088 **ClientCode: PDEO**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Paul King
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610
(510) 658-6916 FAX 510-834-0152

Email: lab@pdenviro.com
cc:
PO:
ProjectNo: #0405; J.W. Silveira

Bill to:
Accounts Payable
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

Requested TAT: 5 days

Date Received: **10/05/2009**
Date Printed: **10/05/2009**

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
0910088-001	B10-4.5	Soil	10/5/2009 8:40	☐	A											
0910088-002	B10-9.5	Soil	10/5/2009 8:45	☐	A											
0910088-003	B10-14.5	Soil	10/5/2009 8:50	☐	A											
0910088-004	B10-19.5	Soil	10/5/2009 8:55	☐	A											
0910088-005	B10-24.5	Soil	10/5/2009 9:00	☐	A											
0910088-006	B10-29.5	Soil	10/5/2009 9:15	☐	A											
0910088-007	B10-34.5	Soil	10/5/2009 9:40	☐	A											

Test Legend:

1	G-MBTEX_S	2		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: **P & D Environmental**

Date and Time Received: **10/5/2009 4:30:33 PM**

Project Name: **#0405; J.W. Silveira**

Checklist completed and reviewed by: Melissa Valles

WorkOrder N°: **0910088** 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: 6°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
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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

P & D Environmental	Client Project ID: #0405; J.W. Silveira	Date Sampled: 10/05/09
		Date Received: 10/05/09
55 Santa Clara, Ste.240	Client Contact: Paul King	Date Extracted: 10/05/09
Oakland, CA 94610	Client P.O.:	Date Analyzed: 10/07/09

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 0910088

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	B10-4.5	S	ND	ND	ND	ND	ND	ND	1	84	
002A	B10-9.5	S	ND	ND	ND	ND	ND	ND	1	88	
003A	B10-14.5	S	ND	ND	ND	ND	ND	ND	1	86	
004A	B10-19.5	S	ND	ND	ND	ND	ND	ND	1	89	
005A	B10-24.5	S	ND	ND	ND	ND	ND	ND	1	88	
006A	B10-29.5	S	ND	ND	ND	ND	ND	ND	1	86	
007A	B10-34.5	S	ND	ND	ND	ND	ND	ND	1	89	

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:

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 46191 WorkOrder: 0910088

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0910088-001A**

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	110	106	3.97	118	117	0.601	70 - 130	20	70 - 130	20
MTBE	ND	0.10	108	99.3	8.35	86	92.6	7.39	70 - 130	20	70 - 130	20
Benzene	ND	0.10	91.5	86.9	5.21	90.5	90.8	0.338	70 - 130	20	70 - 130	20
Toluene	ND	0.10	89.7	84.8	5.68	89.3	89.2	0.0280	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	89.1	84.4	5.40	89	89.5	0.526	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	90.3	85	6.09	89.9	89.7	0.190	70 - 130	20	70 - 130	20
%SS:	84	0.10	79	77	2.60	89	99	10.9	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 46191 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910088-001A	10/05/09 8:40 AM	10/05/09	10/07/09 3:28 AM				

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.

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 46247 WorkOrder: 0910088

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0910088-007A**

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	110	105	4.53	108	109	1.07	70 - 130	20	70 - 130	20
MTBE	ND	0.10	98.6	96.6	2.07	96.8	109	11.7	70 - 130	20	70 - 130	20
Benzene	ND	0.10	95.3	95.4	0.112	99.2	90.7	9.03	70 - 130	20	70 - 130	20
Toluene	ND	0.10	93.1	93.2	0.102	96.3	90.9	5.72	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	92.5	92.6	0.186	91.9	85.6	7.06	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	93	89.9	3.34	90.7	87.8	3.30	70 - 130	20	70 - 130	20
%SS:	89	0.10	90	81	10.8	81	78	4.24	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 46247 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910088-002A	10/05/09 8:45 AM	10/05/09	10/07/09 4:28 AM	0910088-003A	10/05/09 8:50 AM	10/05/09	10/07/09 4:57 AM
0910088-004A	10/05/09 8:55 AM	10/05/09	10/07/09 5:27 AM	0910088-005A	10/05/09 9:00 AM	10/05/09	10/07/09 5:57 AM
0910088-006A	10/05/09 9:15 AM	10/05/09	10/07/09 7:27 AM	0910088-007A	10/05/09 9:40 AM	10/05/09	10/07/09 8:27 AM

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

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0405; J.W. Silveira	Date Sampled: 10/05/09
		Date Received: 10/05/09
	Client Contact: Paul King	Date Reported: 10/08/09
	Client P.O.:	Date Completed: 10/08/09

WorkOrder: 0910091

October 08, 2009

Dear Paul:

Enclosed within are:

1) The results of the **1** analyzed sample from your project: **#0405; J.W. Silveira,**
2) A QC report for the above sample,
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.

0910091

P & D ENVIRONMENTAL, INC.
55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER: 0405

PROJECT NAME: J.W. SILVEIRA 1200 20th AVE., OAKLAND

SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-G & MBTEX BY EPA 8021B	PRESERVATIVE	REMARKS
TS B10-W	10/5/09	1100	WATER	3 VOA's	3	X	ICE	NORMAL TURN AROUND

ICE / t° 6.0C
GOOD CONDITION √ APPROPRIATE
HEAD SPACE ABSENT √ CONTAINERS √
DECHLORINATED IN LAB ___ PRESERVED IN LAB ___
PRESERVATION VOAS | O&G | METALS | OTHER

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	TOTAL NO. OF SAMPLES (THIS SHIPMENT): 1
	10/5/09	3PM		TOTAL NO. OF CONTAINERS (THIS SHIPMENT): 3
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY CONTACT: ANGELA RYDELIUS
	10/5/09	415		LABORATORY PHONE NUMBER: (877) 252-9262
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO

LABORATORY: MCCAMPBELL ANALYTICAL

Results and billing to:
P&D Environmental, Inc.
lab@pdenviro.com

REMARKS: ALL PRESERVED WITH HCL

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0910091 **ClientCode: PDEO**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Paul King
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610
(510) 658-6916 FAX 510-834-0152

Email: lab@pdenviro.com
cc:
PO:
ProjectNo: #0405; J.W. Silveira

Bill to:
Accounts Payable
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

Requested TAT: 5 days

Date Received: **10/05/2009**
Date Printed: **10/05/2009**

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
0910091-001	B10-W	Water	10/5/2009 11:00	☐	A											

Test Legend:

1	G-MBTEX_W	2		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.

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Sample Receipt Checklist

Client Name: **P & D Environmental**

Date and Time Received: **10/5/2009 4:52:55 PM**

Project Name: **#0405; J.W. Silveira**

Checklist completed and reviewed by: Melissa Valles

WorkOrder N°: **0910091** Matrix Water

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: 6°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Client contacted: Date contacted: Contacted by:

Comments:

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental	Client Project ID: #0405; J.W. Silveira	Date Sampled: 10/05/09
		Date Received: 10/05/09
55 Santa Clara, Ste.240	Client Contact: Paul King	Date Extracted: 10/06/09
Oakland, CA 94610	Client P.O.:	Date Analyzed: 10/06/09

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 0910091

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	B10-W	W	ND	ND	ND	ND	ND	ND	1	111	b1

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	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples are reported in ug/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:

b1) aqueous sample that contains greater than ~1 vol. % sediment

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 46233 WorkOrder 0910091

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0910066-003A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	113	119	4.95	113	117	2.98	70 - 130	20	70 - 130	20
MTBE	ND	10	119	117	1.82	119	118	0.819	70 - 130	20	70 - 130	20
Benzene	ND	10	109	108	1.58	104	107	3.40	70 - 130	20	70 - 130	20
Toluene	ND	10	96.7	94.9	1.83	90.6	93.4	3.03	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	96.7	96.1	0.677	92.4	95.2	3.00	70 - 130	20	70 - 130	20
Xylenes	ND	30	109	109	0	104	107	2.76	70 - 130	20	70 - 130	20
%SS:	105	10	101	102	1.45	98	101	2.66	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 46233 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910091-001A	10/05/09 11:00 AM	10/06/09	10/06/09 10:50 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, or inconsistency in sample containers.

Air Toxics LTD.
Laboratory Services Since 1989

10/15/2009
Mr. Paul King
P & D Environmental
55 Santa Clara
Suite 240
Oakland CA 94610

Project Name: J.W. Silveira Co. 1200 20th Ave. Oakland
Project #: 0405
Workorder #: 0910197B

Dear Mr. Paul King

The following report includes the data for the above referenced project for sample(s) received on 10/7/2009 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

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0910197B

Work Order Summary

CLIENT:	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610	**BILL TO:**	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610
PHONE:	510-658-6916	**P.O. #**	
FAX:	510-834-0772	**PROJECT #**	0405 J.W. Silveira Co. 1200 20th Ave. Oakland
DATE RECEIVED:	10/07/2009	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	10/15/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SG1	Modified TO-3	7.0 "Hg	15 psi
01AA	SG1 Lab Duplicate	Modified TO-3	7.0 "Hg	15 psi
02A	SG1-DUP	Modified TO-3	7.0 "Hg	15 psi
03A	Lab Blank	Modified TO-3	NA	NA
04A	LCS	Modified TO-3	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 10/15/09

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
P & D Environmental
Workorder# 0910197B

Two 1 Liter Summa Canister samples were received on October 07, 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

The Chain of Custody (COC) was not relinquished properly. A date was not provided.

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: SG1

Lab ID#: 0910197B-01A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.066	0.27	0.42	1.7

Client Sample ID: SG1 Lab Duplicate

Lab ID#: 0910197B-01AA

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.066	0.27	0.39	1.6

Client Sample ID: SG1-DUP

Lab ID#: 0910197B-02A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.066	0.27	0.37	1.5

Air Toxics LTD.
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Client Sample ID: SG1

Lab ID#: 0910197B-01A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d101407**	**Date of Collection: 10/5/09 12:03:00 PM**	
Dil. Factor:	**2.64**	**Date of Analysis: 10/14/09 12:59 PM**	

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.066	0.27	0.42	1.7

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	98	75-150

Air Toxics LTD.
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Client Sample ID: SG1 Lab Duplicate

Lab ID#: 0910197B-01AA

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d101408**	**Date of Collection: 10/5/09 12:03:00 PM**	
Dil. Factor:	**2.64**	**Date of Analysis: 10/14/09 01:36 PM**	

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.066	0.27	0.39	1.6

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	99	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SG1-DUP

Lab ID#: 0910197B-02A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d101409**	**Date of Collection: 10/5/09 12:03:00 PM**	
Dil. Factor:	**2.64**	**Date of Analysis: 10/14/09 02:09 PM**	

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.066	0.27	0.37	1.5

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	96	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0910197B-03A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d101404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/14/09 11:05 AM**	

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.025	0.10	Not Detected	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	98	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0910197B-04A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	**d101418**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/14/09 10:10 PM**	

Compound	**%Recovery**
TPH (Gasoline Range)	108

Container Type: NA - Not Applicable

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

P & D E IRONMENTAL, INC.

55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0405	J.W. SILVEIRA CO. 1200 20th AVE. OAKLAND

SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES Michael Deschenes

SAMPLE NUMBER	DATE	TIME	TYPE	INITIAL VACUUM	SAMPLE LOCATION	FINAL VACUUM	NUMBER OF CONTAINERS	ANALYSIS(ES): TO-15	(MBTEX 2-Propanol) 1,2-DCA	Naphthalene TO-3	TPH-G	PRESERVATIVE	REMARKS
SG1	10/5/09	12032	SIL AIR		-26 SUMA# 12373	-5	1	X	X			None	Normal Turn Around
SG1-DUP	10/5/09	12032	↓		-26 SUMA# 34107	-5	1	X	X			"	" " "

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	TOTAL NO. OF SAMPLES (THIS SHIPMENT) / TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	LABORATORY:
Michael Deschenes	10/6/09				AIR TOXICS, LTD
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY CONTACT:	LABORATORY PHONE NUMBER:
				KYLE JAGADRI	(916) 985-1000
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO	

Results and billing to:
P&D Environmental, Inc.
lab@pdenviro.com

REMARKS: 2-Propanol was our tracer gas.

Revised COC Received 10/8/09

P & D ENVIRONMENTAL, INC.
55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

Receipt VGR 10/7/09

0910197

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0405	J.W. SILVEIRA CO, 1200 20th AVE. OAKLAND

SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES Michael Deschenes

	SAMPLE NUMBER	DATE	TIME	TYPE	INITIAL VACUUM	SAMPLE LOCATION	FINAL VACUUM	NUMBER OF CONTAINERS	ANALYSIS(ES): TO-15 (MBTEX 2-Propanol)	12-PCA TO-3	TPH-G			PRESERVATIVE	REMARKS	
01A	SG1	10/5/09	12:03:20	2.5L SUMA	-26	SUMA# 12373	-5	1	X	X				None	Normal Turn Around	7.0"Hg
02A	SG1-DUP	10/5/09	12:03:20	↓	-26	SUMA# 34107	-5	1	X	X				"	"	7.0"Hg

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	TOTAL NO. OF SAMPLES (THIS SHIPMENT)	LABORATORY:
Michael Deschenes				TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	AIR TOXICS, LTD
RELINQUISHED BY: (SIGNATURE)	DATE 10/7/09	TIME 905	RECEIVED BY: (SIGNATURE) AIL Monica Gregori	LABORATORY CONTACT: KYLE JAGADORI	LABORATORY PHONE NUMBER: (916) 985-1000
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO	

Results and billing to: P&D Environmental, lab@pdenviro.com

CUSTODY SEAL INTACT? Y N NONE TEMP MA

REMARKS: 2-Propanol was our tracer gas.

Fed Ex

Air Toxics LTD.
Laboratory Services Since 1989

10/16/2009
Mr. Paul King
P & D Environmental
55 Santa Clara
Suite 240
Oakland CA 94610

Project Name: J.W. Silveira Co. 1200 20th Ave. Oakland
Project #: 0405
Workorder #: 0910197A

Dear Mr. Paul King

The following report includes the data for the above referenced project for sample(s) received on 10/7/2009 at Air Toxics Ltd.

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

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

Regards,

Kyle Vagadori
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0910197A

Work Order Summary

CLIENT:	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610	**BILL TO:**	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610
PHONE:	510-658-6916	**P.O. #**	
FAX:	510-834-0772	**PROJECT #**	0405 J.W. Silveira Co. 1200 20th Ave. Oakland
DATE RECEIVED:	10/07/2009	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	10/16/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SG1	Modified TO-15	7.0 "Hg	15 psi
01AA	SG1 Lab Duplicate	Modified TO-15	7.0 "Hg	15 psi
02A	SG1-DUP	Modified TO-15	7.0 "Hg	15 psi
03A	Lab Blank	Modified TO-15	NA	NA
04A	CCV	Modified TO-15	NA	NA
05A	LCS	Modified TO-15	NA	NA

CERTIFIED BY: Linda J. Fruman DATE: 10/16/09

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
P & D Environmental
Workorder# 0910197A

Two 1 Liter Summa Canister samples were received on October 07, 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

The Chain of Custody (COC) was not relinquished properly. A date was not provided.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

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

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: SG1

Lab ID#: 0910197A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.3	3.0	4.2	9.5
Toluene	1.3	11	5.0	42
Ethyl Benzene	1.3	2.0	5.7	8.5
m,p-Xylene	1.3	7.7	5.7	33
o-Xylene	1.3	2.7	5.7	12

Client Sample ID: SG1 Lab Duplicate

Lab ID#: 0910197A-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.3	3.2	4.2	10
Toluene	1.3	10	5.0	39
Ethyl Benzene	1.3	1.9	5.7	8.1
m,p-Xylene	1.3	7.3	5.7	32
o-Xylene	1.3	2.8	5.7	12

Client Sample ID: SG1-DUP

Lab ID#: 0910197A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.3	2.9	4.2	9.2
Toluene	1.3	12	5.0	45
Ethyl Benzene	1.3	1.7	5.7	7.5
m,p-Xylene	1.3	7.8	5.7	34
o-Xylene	1.3	2.6	5.7	12
2-Propanol	5.3	6.7	13	16

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Laboratory Services Since 1989

Client Sample ID: SG1

Lab ID#: 0910197A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**d101425**	**Date of Collection:**	**10/5/09 12:03:00 PM**
Dil. Factor:	**2.64**	**Date of Analysis:**	**10/14/09 07:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	1.3	Not Detected	4.8	Not Detected
Benzene	1.3	3.0	4.2	9.5
1,2-Dichloroethane	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	11	5.0	42
Ethyl Benzene	1.3	2.0	5.7	8.5
m,p-Xylene	1.3	7.7	5.7	33
o-Xylene	1.3	2.7	5.7	12
2-Propanol	5.3	Not Detected	13	Not Detected
Naphthalene	5.3	Not Detected	28	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	111	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	90	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SG1 Lab Duplicate

Lab ID#: 0910197A-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**d101426**	**Date of Collection: 10/5/09 12:03:00 PM**	
Dil. Factor:	**2.64**	**Date of Analysis: 10/14/09 08:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	1.3	Not Detected	4.8	Not Detected
Benzene	1.3	3.2	4.2	10
1,2-Dichloroethane	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	10	5.0	39
Ethyl Benzene	1.3	1.9	5.7	8.1
m,p-Xylene	1.3	7.3	5.7	32
o-Xylene	1.3	2.8	5.7	12
2-Propanol	5.3	Not Detected	13	Not Detected
Naphthalene	5.3	Not Detected	28	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SG1-DUP

Lab ID#: 0910197A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**d101423**	**Date of Collection: 10/5/09 12:03:00 PM**	
Dil. Factor:	**2.64**	**Date of Analysis: 10/14/09 06:49 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	1.3	Not Detected	4.8	Not Detected
Benzene	1.3	2.9	4.2	9.2
1,2-Dichloroethane	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	12	5.0	45
Ethyl Benzene	1.3	1.7	5.7	7.5
m,p-Xylene	1.3	7.8	5.7	34
o-Xylene	1.3	2.6	5.7	12
2-Propanol	5.3	6.7	13	16
Naphthalene	5.3	Not Detected	28	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0910197A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**d101405**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/14/09 04:09 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	91	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0910197A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**d101402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/14/09 02:29 AM**	

Compound	%Recovery
Methyl tert-butyl ether	103
Benzene	119
1,2-Dichloroethane	117
Toluene	117
Ethyl Benzene	110
m,p-Xylene	107
o-Xylene	112
2-Propanol	86
Naphthalene	86

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0910197A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**d101404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/14/09 03:31 AM**	

Compound	%Recovery
Methyl tert-butyl ether	114
Benzene	120
1,2-Dichloroethane	116
Toluene	120
Ethyl Benzene	109
m,p-Xylene	109
o-Xylene	111
2-Propanol	94
Naphthalene	97

Container Type: NA - Not Applicable

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

P & D E IRONMENTAL, INC.

55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0405	J.W. SILVEIRA CO. 1200 20th AVE. OAKLAND

SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES Michael Deschenes

SAMPLE NUMBER	DATE	TIME	TYPE	INITIAL VACUUM	SAMPLE LOCATION	FINAL VACUUM	NUMBER OF CONTAINERS	ANALYSIS(ES): TO-15	(MBTEX 2-Propanol) 1,2-DCA	Naphthalene TO-3	TPH-G	PRESERVATIVE	REMARKS
SG1	10/5/09	12032	SIL AIR		-26 SUMA# 12373	-5	1	X	X			None	Normal Turn Around
SG1-DUP	10/5/09	12032	↓		-26 SUMA# 34107	-5	1	X	X			"	" " "

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	TOTAL NO. OF SAMPLES (THIS SHIPMENT) / TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	LABORATORY:
Michael Deschenes	10/6/09				AIR TOXICS, LTD
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY CONTACT:	LABORATORY PHONE NUMBER:
				KYLE JAGADRI	(916) 985-1000
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO	

Results and billing to:
P&D Environmental, Inc.
lab@pdenviro.com

REMARKS: 2-Propanol was our tracer gas.

Revised COC Received 10/8/09

P & D ENVIRONMENTAL, INC.
55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

Receipt VGR 10/7/09

0910197

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0405	J.W. SILVEIRA CO, 1200 20th AVE. OAKLAND

SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES Michael Deschenes

	SAMPLE NUMBER	DATE	TIME	TYPE	INITIAL VACUUM	SAMPLE LOCATION	FINAL VACUUM	NUMBER OF CONTAINERS	ANALYSIS(ES): TO-15 (MBTEX 2-Propanol)	12-PCA TO-3	TPH-G			PRESERVATIVE	REMARKS	
01A	SG1	10/5/09	12:03:20	2.5L SUMA	-26	SUMA# 12373	-5	1	X	X				None	Normal Turn Around	7.0"Hg
02A	SG1-DUP	10/5/09	12:03:20	↓	-26	SUMA# 34107	-5	1	X	X				"	"	7.0"Hg

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	TOTAL NO. OF SAMPLES (THIS SHIPMENT)	LABORATORY:
Michael Deschenes				TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	AIR TOXICS, LTD
RELINQUISHED BY: (SIGNATURE)	DATE 10/7/09	TIME 905	RECEIVED BY: (SIGNATURE) AIL Monica Gregori	LABORATORY CONTACT: KYLE JAGADORI	LABORATORY PHONE NUMBER: (916) 985-1000
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO	

Results and billing to: P&D Environmental, lab@pdenviro.com

CUSTODY SEAL INTACT? Y N NONE TEMP MA

REMARKS: 2-Propanol was our tracer gas.

Fed Ex

APPENDIX E

Soil Gas Risk and Hazard Calculation Work Sheets

DATA ENTRY SHEET

SG-SCREEN
PA Version 2.0; 04/

Reset to Defaults

DTSC
Vapor Intrusion Guidance
Interim Final 12/04
(last modified 2/4/09)

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
71432	1.00E+01			Benzene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	15	24	SI		

MORE ↓

ENTER Vandose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, $\rho_b{}^A$ (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, $\theta_w{}^V$ (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
	1.5	0.43	0.15	5

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
1	0.280	0.263	6.91E-09	0.833	5.75E-09	4,000	1.00E+01	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	7,977	5.29E-03	2.17E-01	1.80E-04	6.86E-03	1

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	1.00E+01	1.25	8.33E+01	6.86E-03	5.00E+03	3.50E+10	2.43E-03	2.43E-02

Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
2.9E-05	3.0E-02

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.7E-07	5.5E-04

MESSAGE SUMMARY BELOW:

END

DATA ENTRY SHEET

SG-SCREEN
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Reset to Defaults

DTSC
Vapor Intrusion Guidance
Interim Final 12/04
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Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
108883	4.50E+01			Toluene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	15	24	SI		

MORE ↓

ENTER Vandose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, $\rho_b{}^A$ (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, $\theta_w{}^V$ (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
	1.5	0.43	0.15	5

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
1	0.280	0.263	6.91E-09	0.833	5.75E-09	4,000	4.50E+01	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	9,001	6.29E-03	2.58E-01	1.80E-04	6.79E-03	1

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	4.50E+01	1.25	8.33E+01	6.79E-03	5.00E+03	4.63E+10	2.43E-03	1.09E-01

Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
NA	3.0E-01

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	2.5E-04

MESSAGE SUMMARY BELOW:

END

DATA ENTRY SHEET

SG-SCREEN
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DTSC
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(last modified 2/4/09)

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
100414	8.50E+00			Ethylbenzene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	15	24	SI		

MORE ↓

ENTER Vandose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, $\rho_b{}^A$ (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, $\theta_w{}^V$ (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
	1.5	0.43	0.15	5

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
1	0.280	0.263	6.91E-09	0.833	5.75E-09	4,000	8.50E+00	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	9,994	7.43E-03	3.05E-01	1.80E-04	5.85E-03	1

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	8.50E+00	1.25	8.33E+01	5.85E-03	5.00E+03	2.36E+12	2.42E-03	2.06E-02

Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
2.5E-06	1.0E+00

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.3E-08	1.4E-05

MESSAGE SUMMARY BELOW:

END

DATA ENTRY SHEET

SG-SCREEN
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DTSC
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(last modified 2/4/09)

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
106423	3.40E+01			p-Xylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	15	24	SI		

MORE ↓

ENTER Vandose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, $\rho_b{}^A$ (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, $\theta_w{}^V$ (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
	1.5	0.43	0.15	5

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
1	0.280	0.263	6.91E-09	0.833	5.75E-09	4,000	3.40E+01	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	10,083	7.22E-03	2.96E-01	1.80E-04	6.00E-03	1

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	3.40E+01	1.25	8.33E+01	6.00E-03	5.00E+03	1.17E+12	2.43E-03	8.25E-02

Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
NA	1.0E-01

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	5.6E-04

MESSAGE SUMMARY BELOW:

END

DATA ENTRY SHEET

SG-SCREEN
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Reset to Defaults

DTSC
Vapor Intrusion Guidance
Interim Final 12/04
(last modified 2/4/09)

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
95476	1.20E+01			o-Xylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	15	24	SI		

MORE ↓

ENTER Vandose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, $\rho_b{}^A$ (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, $\theta_w{}^V$ (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
	1.5	0.43	0.15	5

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
1	0.280	0.263	6.91E-09	0.833	5.75E-09	4,000	1.20E+01	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	10,245	4.88E-03	2.00E-01	1.80E-04	6.79E-03	1

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	1.20E+01	1.25	8.33E+01	6.79E-03	5.00E+03	4.63E+10	2.43E-03	2.92E-02

Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
NA	1.0E-01

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	2.0E-04

MESSAGE SUMMARY BELOW:

END