# **BUTTNER PROPERTIES, INC.**

PROPERTY DEVELOPMENT • REAL ESTATE INVESTMENT • PROPERTY MANAGEMENT

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# RECEIVED

October 12, 2010

2:22 pm, Oct 13, 2010

Alameda County Environmental Health

Alameda County Environmental Health Services Local Oversight Program 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Attention: Ms. Barbara Jakub, Hazardous Materials Specialist

RE: Dave's Station 2250 Telegraph Avenue Oakland, California

Dear Ms. Jakub:

The Work Plan dated October 12, 2010, was prepared by our consultant, Fugro West, Inc. ("Fugro"), who we believe to be experienced and qualified to advise us in a technical area that requires a high degree of professional expertise. Therefore we have relied upon Fugro's assistance, knowledge and expertise in their preparation of the report. I am unaware of any material inaccuracy in the information in the report or of any violation of government guidelines that are applicable to the Work Plan. Accordingly, I am not aware of any reason to question the conclusions and recommendations contained in the Work Plan.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1).

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Marianne B. Robism

Marianne B. Robison President



1000 Broadway, Suite 440 Oakland, California 94607 **Tel: (510) 268-0461** Fax: (510) 268-0545

October 12, 2010 Project No. 609.004

Alameda County Environmental Health Services Local Oversight Program 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Attention: Ms. Barbara Jakub, Hazardous Materials Specialist

Subject: Technical Comments and Work Plan for Monitoring Well Installation, Fuel Leak Case No. RO0000359, GeoTracker Global ID T0600100431, Dave's Station, 2250 Telegraph Avenue, Oakland, California

Dear Ms. Jakub:

On behalf of Buttner Properties, Fugro is submitting Technical Comments to Alameda County Environmental Health (ACEH) letter dated August 13, 2010 and a Work Plan for Monitoring Well Installation for the referenced Site in Oakland, California (See Plate 1).

Site investigations and groundwater monitoring have been conducted at the referenced site since the early 1990's. During the summer of 2009 Fugro conducted another supplemental site investigation which included soil vapor and groundwater sampling and analysis, and presented the results in a report entitled "Site Investigation Summer 2009 and Quarterly Groundwater Monitoring Report" dated November 2009. Based on the quantity of groundwater data generated to date, Fugro recommended that three of the existing monitoring wells be abandoned and two new monitoring wells be installed. In a letter dated August 13, 2010 ACEH presented five technical comments based on their review of the November 2009 report. During a conference call on September 16, 2010, Fugro discussed each comment with ACEH and the content of those discussions are summarized below:

<u>ACEH Comment 1. Groundwater Monitoring Network</u> – We do not concur with decommissioning any monitoring wells at this time. Also, the location of proposed monitoring well MW-7 appears to be downgradient of the boring with one of the lowest contaminant concentration. ... Please submit a work plan detailing the proposed design, sampling, and well installation by the date requested below [sic October 12, 2010]. Lastly, please include the locations of conduits on the proposed well location map.

All existing wells will be kept as active groundwater monitoring well network points. ACEH may consider a reduction in sampling and/or the abandonment of certain wells based on the data collected following the installation of the two new wells.

A Work Plan for the installation of new monitoring wells MW-7 and MW-8 is presented subsequently in this letter. Monitoring well MW-7 has been relocated to the east of



temporary sampling points where elevated contaminant concentrations have been previously detected (B-4a, B-5, B-12 and TW-1) as shown on the attached Plate 2. The locations of all known subsurface conduits are presented on Plate 2 as requested.

<u>ACEH Comment 2. Soil Vapor Characterization</u> – The sampling guidance submitted does not contain information or a diagram of the vapor point construction. ...Please explain the sampling in more detail and include a figure with the report requested below showing how the tracer compound is applied since a shroud was not used. Lastly, please provide a table of soil gas sampling depths for all samples.

Soil vapor sampling methods were described in literature contained in Appendix C of the 2009 Site Investigation Report. The construction of the vapor probes contains one point of possible ambient air intrusion, a simple ON/OFF valve located at the top of the vapor probe tubing as shown on the attached schematic of a typical probe. A calibrated plastic syringe is used to draw in a vapor sample and the same syringe is used to inject the vapor sample directly into the mobile laboratory GC unit which was onsite. This is a significant departure from the traditional and complicated sample train collection systems which involve several vapor gauges, multiple tubing runs, and collection canister valves, all of which represent a possible point of ambient air intrusion. The use of a shroud was not deemed necessary to confirm inundation of the leak check compound for this project because of the sampling system used. A few photographs which show the vapor construction materials and sample train used at the Site are also attached.

Table 6 from the 2009 Site Investigation Report summarized the chemical concentrations of the soil gas samples obtained from the Site. Although the report indicated that all vapor samples were collected at a depth of 5 feet, Table 6 has been revised to include this information. The revised Table 6 is attached.

<u>ACEH Comment 3.</u> <u>Groundwater Contaminant Plume Monitoring</u> – Please discontinue groundwater sample analysis in non-detect, upgradient well MW-2. The following wells should be gauged and sampled annually; MW-1, MW-5, and MW-6. ...Continue gauging and sampling monitoring wells MW-3, MW-4 on a semiannual basis. The new wells MW-7 and MW-8 should be gauged and sampled quarterly for the first year.

Fugro will conduct groundwater monitoring activities at the Site in accordance with the scope and frequency outlined in this comment. As discussed with you on September 16, 2010, it is Fugro's opinion that contaminants detected in well MW-6 suggest that an offsite source/release is responsible for the contaminant concentrations in that well. The groundwater flow direction observed at the Site and chemical ratios determined for that well suggest that the contaminants are not related to releases from the Site. Fugro will sample Well MW-6 in October 2010, and will re-petition ACEH to drop the testing requirement for this well.



# <u>ACEH Comment 4. Corrective Action Plan</u> – At this time, a Feasibility Study/Corrective Action Plan (FS/CAP) prepared in accordance with Title 23, California Code of Regulations, Section 2725 appears warranted.

Once Wells MW-7 and MW-8 have been installed and sampled, there will be sufficient data upon which to discuss the scope of additional data gaps, future monitoring requirements and the scope and timing to prepare a FS/CAP. Accordingly, we anticipate a meeting between ACEH, Fugro, and Buttner Properties as early as February 2011.

# <u>ACEH Comment 5. Perjury Statement</u> – All submittals (to ACEH) are required to have a signed statement from the responsible party... Submittals without the perjury statement will be rejected.

The signed statement from the responsible party (Buttner Properties) has been included in the cover letter for this document.

# WORK PLAN FOR MONITORING WELL INSTALLATION

# Preliminary Planning, Utility Locating and Permitting

Well installation will be conducted using standard industry practices for field work at sites that are known to contain soil and groundwater contamination. Fugro staff will follow our Standard Operating Procedures (SOPs) for conducting environmental studies of this nature. A site-specific health and safety plan (HSP) will be developed based on site conditions and contaminants present. Prior to the start of any field work a tail gate meeting will be conducted to review the HSP.

Prior to conducting any intrusive fieldwork, the proposed well locations will be marked and a utility survey will be completed by a private underground utility locator. Fugro will also notify Underground Service Alert (USA) a minimum of two days prior to intrusive field activities. A drilling permit from Alameda County Public Works Agency (ACPWA) and an encroachment permit from the City of Oakland will be obtained in accordance with local jurisdiction requirements.

# Well Borehole Drilling and Sampling

A licensed C-57 well drilling subcontractor will be retained to advance two boreholes (MW-7 and MW-8) at the locations shown on the attached Site Plan. Based on existing site stratigraphy and the adequate performance of the existing groundwater monitoring wells, the new wells will be installed in a manner similar to the well installation activities already conducted at the Site. Boreholes will be advanced to a depth of about 20 feet below the existing groundsurface (bgs) using a hollow stem auger drill rig equipped with 8-inch diameter augers.

Each boring will be logged in accordance with the Unified Soil Classification System (USCS) and soils encountered will be screened in the field using an Organic Vapor Meter (OVM). Soil samples will be collected from a variety of depths from each boring. The quantity and quality of the samples collected is highly dependent on field sample recovery. In general,



soil samples will be collected from the surface, and at 1, 2, 5, 7, 10, 15, and 20 feet bgs within the borings. Selected soil samples for chemical analyses will be retained in cleaned containers, sealed withTeflon<sup>®</sup> sheeting, and plastic end-caps. Samples will be labeled and stored in an ice-chilled cooler pending delivery to a State of California certified analytical laboratory under appropriate chain-of-custody. The testing program for selected soil samples will include the following:

- Total Volatile Hydrocarbons as gasoline (TVHg) using EPA Method 5030/8260b;
- Total Extractable Hydrocarbons as diesel and motor oil (TEHd and TEHmo) using EPA Methods 8015m, with silica gel cleanup;
- Lead scavengers (1,2,-dichloroethane and 1,2-dibromoethane) using EPA Method 5030/8260b;
- Five fuel oxygenates (MTBE, TAME, ETBE, TBA, and DIPE) using EPA Method 5030/8260b; and
- Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) using EPA Method 5030/8260b.

Data results will be reviewed upon receipt from the laboratory to validate the data. Data will then be tabulated with other Site data.

# Well Construction

Upon boring completion, Fugro will construct each monitoring well using materials and construction details similar to those used for existing site wells. Since the exiting wells have been performing adequately for the purposes of the environmental studies being conducted we judge that there is no reason to change these details.

The wells will consist of two-inch diameter, Schedule 40, PVC casing, 0.02-inch slotted PVC screen, and a locking well cap. Based on known groundwater fluctuation data, the well screens will be positioned between depths of 5 to 20 feet bgs, similar to the well screens installed for the existing Site monitoring wells. The boring annulus between the well casing and the borehole wall will be filled with clean Monterey #3 sand from the bottom of the boring to six inches above the top of the screen section (4.5 to 20 feet bgs). Approximately one foot of hydrated bentonite pellets will be placed above the sand pack. Neat cement grout will be tremied from the top of the hydrated bentonite to the surface to provide the well seal. Each wellhead will be secured with a water-tight, traffic-rated cover, installed flush with the existing pavement surface. After each well has been installed, the top of casing and the existing groundsurface will be surveyed to a local datum by a State-certified land surveyor.

After no less than 48-hours, each well will be developed by purging between five and ten well volumes of water. During purging various parameters including temperature, conductivity, pH, and turbidity (visual) will be noted on well development logs. Well development will be completed using a peristaltic pump and/or disposable bailers. Details regarding the well installation activities, including well completion details and results of analyses, will be presented



in a Well Completion Report to ACEH. In addition, a State of California Department of Water Resources (DWR) Form 188, Well Completion Report will be completed and filed in accordance with State and local jurisdiction requirements.

# Monitoring and Water Sampling

Monitoring of wells MW-7 and MW-8 will occur on a quarterly basis during the first year. During each monitoring event, Fugro will gauge the wells and then purge approximately three casing volumes of water while monitoring pH, temperature, and conductivity parameters as well as visually monitoring turbidity. After purging, the wells will be allowed to recharge. Once the depth to water recharges to within 80 percent of their initial levels, the wells will be sampled using clean disposable bailers. Groundwater samples obtained from the wells will be obtained from each using a disposable bailer. The groundwater samples will be placed in laboratoryprepared containers, stored in cooled ice-chests, and submitted to a State-certified chemical testing laboratory under chain-of-custody documentation for the following analyses:

- TVHg by EPA Method 5030/8260;
- TEHd and TEHmo by EPA Method 8015m, using silica gel cleanup; and
- Lead scavengers, five fuel oxygenates, and BTEX by EPA Method 8260.

Data generated during well installation activities as well as all subsequent groundwater monitoring events will be uploaded to the ACEH ftp site as well as the Regional Water Quality Control Board's (RWQCB) GeoTracker database.

# Investigation and Sampling Derived Waste Materials

All investigation-derived waste materials including soil cuttings from the installation of the two wells and purged groundwater will be drummed and stored temporarily at the Site pending offsite disposal.



# **CLOSING STATEMENT**

Fugro respectfully requests ACEH to review and approval of the Work Plan described herein. Well installation will need to be conducted at a time conducive to the existing property tenants and as such may take some time to coordinate. Accordingly, Buttner Properties and Fugro appreciate sufficient time to schedule and complete the work. If you should have any questions or comments, please feel free to contact the undersigned at (510) 268-0461.

Sincerely, FUGRO WEST, INC.

er U. C

Karen A. Emery Project Geologist

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Ueriann N. Alexander, P.E., R.E.A. Civil Engineer 40469 (exp. 3/31/11) REA 03130 (exp. 7/11)



KAE/JNA:afp

Attachments: Table 6 - Summary of Chemical Concentrations - Soil Gas - Revised

Plate 1 – Vicinity Map

No. C040469

3-31-11

OF CAL

Plate 2 – Site Plan

Appendix - Soil Vapor Survey Methodology

Copies Submitted:

(1 hardcopy and pdf) Addressee (1 hardcopy and pdf) Ms. Marianne Robison, Buttner Properties

- (1 pdf) Mr. Tim Robison, Ph.D.
- (1 pdf) Ms. Helen Robison

TABLE

# Table 6 Summary of Chemical Concentrations - Soil Gas - Revised 2250 Telegraph Avenue, Oakland, California

			Sample ID										Regulatory Criteria		
Analyte	Units	SG-1	SG-2	SG-3	SG-3 (Resample)	SG-4	SG-5	SG-6	SG-6	SG-6	SG-7	SG-7 (Duplicate)	Air Blank	ESLs <sup>1</sup> Lowest Residential Exposure	ESLs <sup>1</sup> Lowest Commerical/Industrial Exposure
Sample Depth	feet	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	n/a		
Purge Volume		1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	7.0	1.0	1.0			
Date		7/31/2009	7/31/2009	7/31/2009	7/31/2009	7/31/2009	7/31/2009	7/31/2009	7/31/2009	7/31/2009	7/31/2009	7/31/2009	7/31/2009		
Petroleum Hydrocarbons															
TPHg	µg/m³	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	36,000	31,000	<10,000	10,000	29,000
TPHd	µg/m³	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000	<50,000	10,000	29,000
Volatile Organic Compounds															
Benzene	µg/m³	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	84	280
Toluene	µg/m³	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	63,000	180,000
Ethylbenzene	µg/m³	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	980	3,300
m,p-Xylene	µg/m³	300	<200	<200	<200	<200	320	250	<200	<200	260	230	<200	21,000	21,000
o-Xylene	µg/m³	130	<100	<100	<100	<100	140	120	<100	<100	100	100	<100		21,000
MTBE	µg/m³	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	9,400	31,000
Dissolved Gases															
Methane	% Vol	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	NE	NE
Oxygen	% Vol	16	9.6	20	19	11	13	8.7	3.2	9.7	16	6.8	21	NE	NE
Carbon Dioxide	% Vol	4.0	7.2	1.5	2.0	9.2	6.8	11	16	10	4.9	12	<1.0	NE	NE
Leak Check Compound															
% of 1,1-Difluoroethane Detected	%	<0.04	<0.04	0.14	0.07	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		
1,1-Difluoroethane	µg/m³	<10,000	<10,000	37,000	19,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	<10,000	NE	NE

#### Notes:

TPHg = Total Petroleum Hydrocarbons as gasoline TPHd = Total Petroleum Hydrocarbons as diesel

Detected concentrations are shown in **Bold** 

NE = Not established

µg/m<sup>3</sup> = micrograms per cubic meter -- = Not Applicable

< = not detected at or above the listed laboratory reporting limit

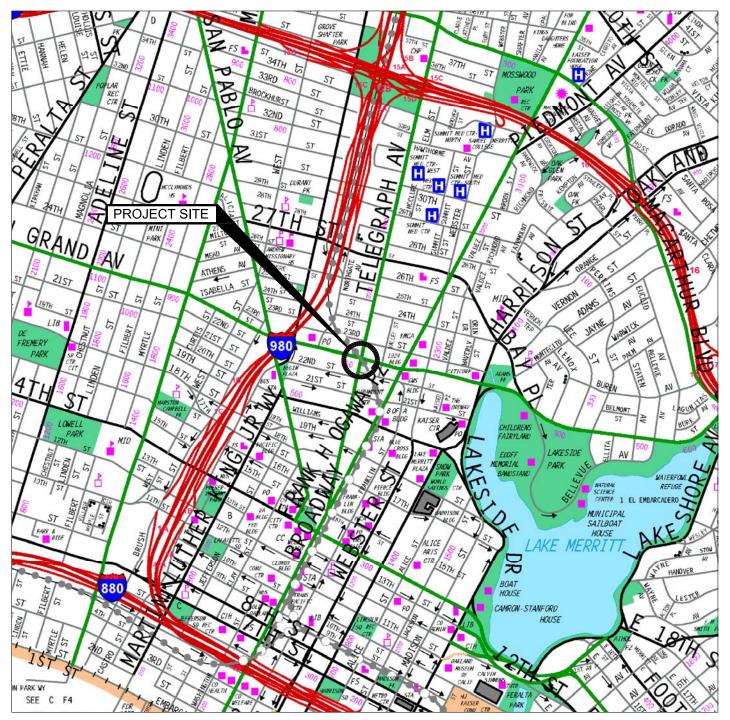
ESLs = San Francisco Bay Regional Water Quality Control Board, Screening for Environmental Concerns at Sites with Contaminated Soil and Grounwater, Interim Final November 2007, Revised May 2008

<sup>1</sup> = Table E-2 Sahllow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (volatile chemicals only)

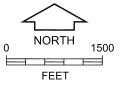


PLATES



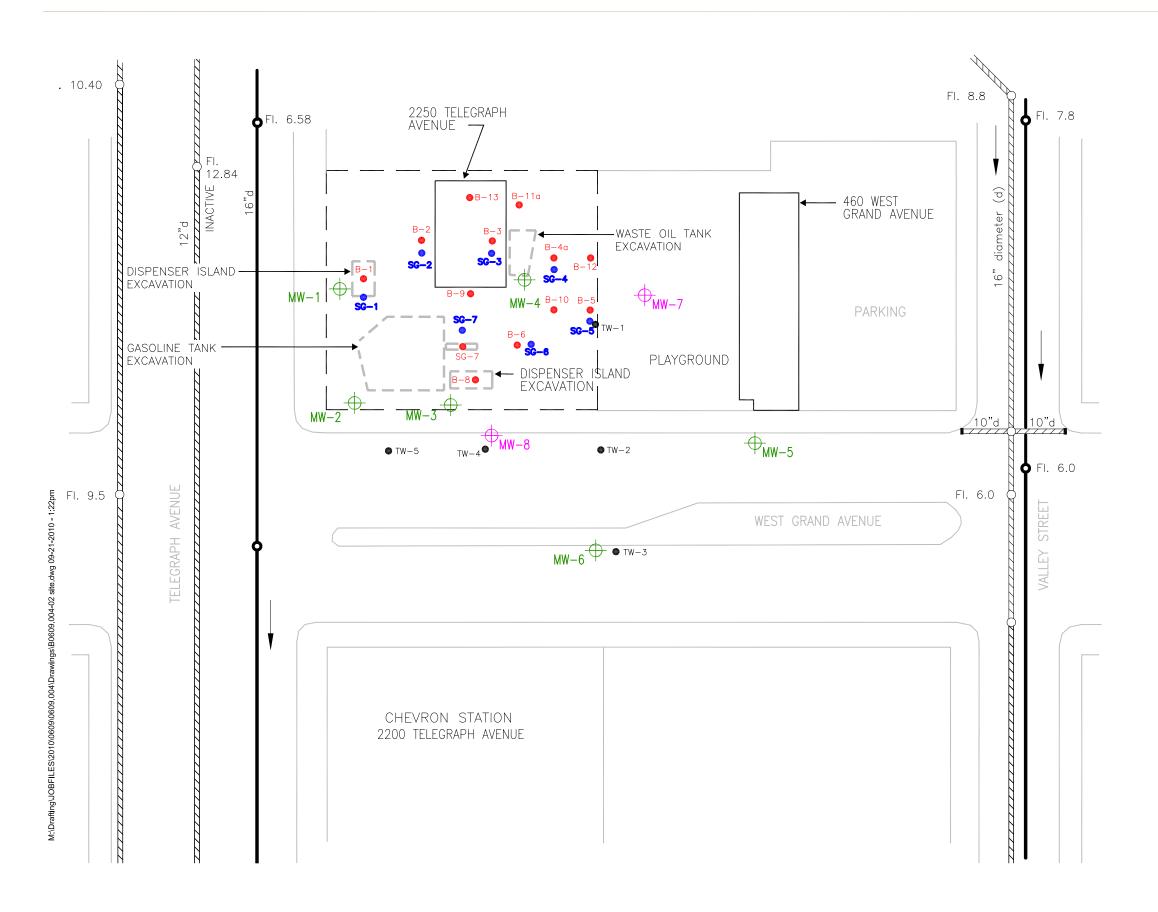


**SOURCE:** This Site Vicinity Map is based on The Thomas Guide Digital Edition 2003, Bay Area Metro, Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Santa Clara Counties.

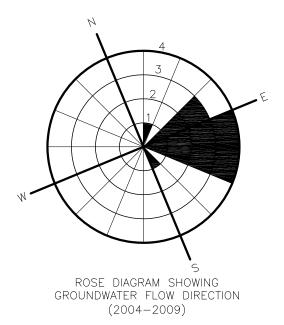


VICINITY MAP 2250 Telegraph Avenue Oakland, California

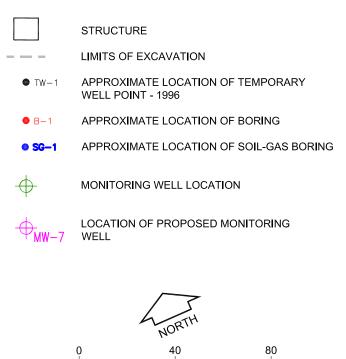
PLATE 1







## LEGEND



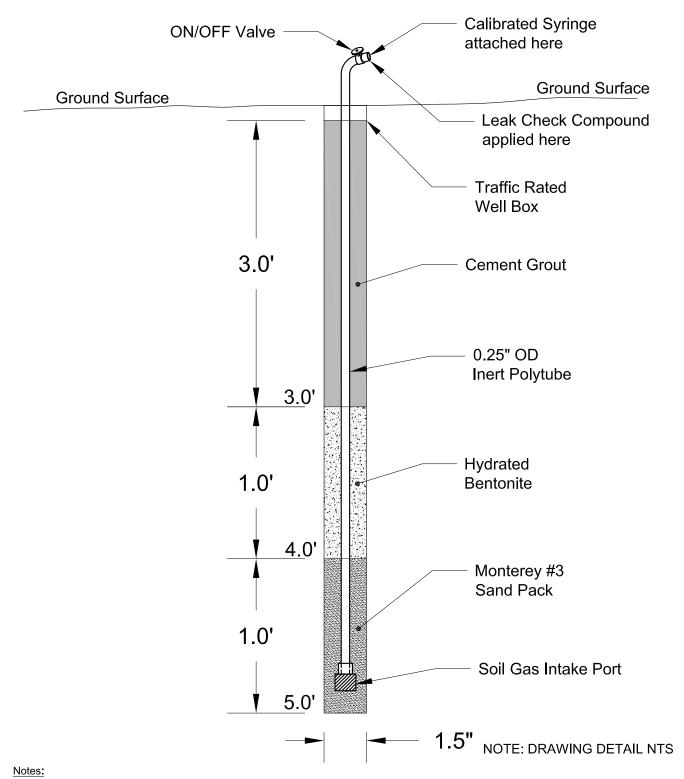
**SITE PLAN** 2250 Telegraph Avenue Oakland, California

FEET

PLATE 2

APPENDIX SOIL VAPOR SURVEY METHODOLOGY October 2010 Project No. 609.004





1. See attached photos which were taken during field installation.

2. The exposed tubing and the ON/OFF valve is secured beneath a traffic rated well box when not in use.

SOIL VAPOR PROBE CONSTRUCTION SCHEMATIC

2250 Telegraph Avenue Oakland, California





View of soil gas intake port connected to ¼" O.D. Polytube



View of placement of sand pack around polytube

# Soil Vapor Probe Photographs 2250 Telegraph Avenue

Oakland, California





View of soil gas probe installation



View of soil gas probe installation

# **Soil Vapor Probe Photographs**

2250 Telegraph Avenue Oakland, California





View of soil gas probe sampling



View of soil gas probe duplicate sampling

# Soil Vapor Probe Photographs

2250 Telegraph Avenue Oakland, California



# SOIL VAPOR SURVEY METHODOLOGY DTSC Protocols

# Active Soil Vapor Sampling System

TEG's low-dead volume soil vapor sampling system has been inspected, endorsed, and is favored by all regulatory agencies who have seen it, including the EPA and CA DTSC. The design eliminates the risk of air leakage down the soil vapor probe, ensures sample collection from the tip, and greatly facilitates decontamination procedures.

#### **Probe Construction**

TEG's soil vapor probes are constructed of 1 inch outer diameter chrom-moly steel, equipped with a steel drop off tip. The Strataprobe can use a larger diameter probe if needed. Nominal lengths are 4 feet and additional lengths may be added to one another to achieve the required sampling depth. An inert 1/8 inch tube runs through the center of the probe and is attached to the sampling port with a stainless steel post run fitting.

#### **Probe Insertion**

The probe is driven into the ground with an electric rotary hammer, or with the Strataprobe. After inserted to the desired depth, the probe is retracted slightly, which opens the tip and exposes the vapor sampling port. This design prevents clogging of the sampling port and cross-contamination from soils during insertion. Once the probe rod is placed, the sample can be collected after waiting twenty minutes for equilibration.

## Soil Gas Sampling

Soil vapor is withdrawn from the inert tubing using a calibrated syringe connected via an on-off valve. A purge volume test is conducted by sampling at the first soil vapor location three times after sequentially collecting and discarding one, three, and seven dead volumes of soil vapor gas to flush the sample tubing and fill it with in-situ soil vapor. The purge volume used prior to the sample yielding the highest analytical value is used for all subsequent sampling. After purging, the next 20cc to 50cc of soil vapor are withdrawn in the syringe, plugged, and immediately transferred to the mobile lab for analysis within the required holding time. During sampling, a leak check gas is used to confirm that the sample train and probe rod is tight and leak free. Additional soil vapor may be collected and stored in gas-tight containers (e.g. Summa canisters) as desired.

## Flushing & Decontamination Procedures

To minimize the potential for cross-contamination between sites, all external probe parts are cleaned of excess dirt and moisture prior to insertion. The internal inert tubing and sampling syringes are flushed with large volumes of ambient air between samples or discarded as required. If water, dirt, or any material is observed in the tubing, the tubing is discarded and replaced with fresh tubing.

**DTSC Protocols** 

# **Analytical Methodology**

Soil vapor samples collected from each probe will be transferred directly to the on-site mobile laboratory and analyzed immediately. There will be minimal lag time between sample collection and analysis, ensuring that the integrity of the sample is maintained.

Samples will be analyzed on a gas chromatograph equipped with capillary columns and a combination of mass spectrometer (GC/MS), TCD, and FID detectors as needed. This combination of columns and detectors ensures compound separation, recognition, and detection at the required levels.

These detectors enable on-site analysis for petroleum hydrocarbons, volatile aromatics (BTEX), and volatile organic compounds (e.g. DCE, TCE, PCE, vinyl chloride) using EPA approved analytical methodology outlined in methods 8260B and 8015m. Output signals from each detector are processed by computer chromatography software and the results entered into a laboratory computer for on-site processing.

## **Daily instrument Calibration**

Daily continuing calibration is performed at the start of each day by injecting and analyzing a midrange calibration standard. Acceptable continuing calibration agreement: +/- 15% to 25% to the calibration curve, depending on the compound.

## Blanks & Duplicates

Blanks are analyzed at the start of each day and more often as appropriate depending upon the measured concentrations. Typically, when high sample values are encountered, additional blanks may be analyzed. Duplicate samples are analyzed as needed or as requested by the client or regulatory agency.

## **Compound Confirmation**

A MS (mass spectrometer) detector is used for absolute compound identification of VOCs. Also, a surrogate compound is added to each sample during analysis to confirm that the chromatographic retention times have not shifted during the course of the day and that surrogate recovery is adequate showing proper instrument operation and integrity.

# Health and Safety - Training and Medical Monitoring Programs

In order to reduce potential employee exposure to hazardous materials and reduce the risk of injury incurred during the normal performance of work, TEG maintains active participation of personnel in a Injury and Illness Prevention Program (IIPP). Each TEG employee that performs work in a laboratory or in the field, is required to have completed a 40-hour training session in accordance with 29 CFR 1910.120. The Health and Safety Officer coordinates all aspects of training and maintaining the Injury and Illness Prevention program, including, but not limited to:

- -- annual physical examination of field personnel (including an initial baseline exam upon hiring)
- -- health, safety and hazardous material training
- -- first aid and Cardio-Pulmonary Resuscitation (CPR) training
- -- safety equipment inventory and purchasing

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-- review of health and safety procedures, exposure limits, and plans for each project.

Work procedures and required safety conditions are determined on the basis of anticipated work, environmental conditions and levels of toxic chemicals at a given site. Consultation with client safety personnel or representatives is undertaken to determine potential health hazards to workers at that site. Each TEG employee participates in all pre-job safety meetings at each job site.