

**ExxonMobil**  
**Environmental Services Company**  
4096 Piedmont Avenue #194  
Oakland, California 94611  
510 547 8196 Telephone  
510 547 8706 Facsimile

**Jennifer C. Sedlachek**  
Project Manager

**ExxonMobil**

November 14, 2012

**RECEIVED**

9:03 am, Nov 20, 2012

Alameda County  
Environmental Health

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

**RE: Former Exxon RAS #74121/10605 Foothill Boulevard, Oakland, California.**

Dear Mr. Wickham:

Attached for your review and comment is a letter report entitled *Well Destruction Report* dated November 14, 2012, for the above-referenced site. The report was prepared by Cardno ERI of Petaluma, California, and details well destruction activities at the subject site.

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

If you have any questions or comments, please contact me at 510.547.8196.

Sincerely,



Jennifer C. Sedlachek  
Project Manager

Attachment: Cardno ERI's *Well Destruction Report* dated November 14, 2012

cc: w/ attachment  
Mr. Leroy Griffin, Oakland Fire Department  
Mr. Hugh K. Phares, Jay-Phares Corporation  
Mr. Peter McIntyre, AEI Consultants  
Mr. John Jay, MacArthur Boulevard Associates  
Ms. Donna Drogos, Alameda County Health Care Services, Environmental Health Services

w/o attachment  
Ms. Rebekah A. Westrup, Cardno ERI



November 14, 2012  
Cardno ERI 2780C.R04

Ms. Jennifer C. Sedlachek  
ExxonMobil Environmental Services  
4096 Piedmont Avenue #194  
Oakland, California 94611

Cardno ERI  
License A/C10/C36-611383

601 North McDowell Blvd,  
Petaluma, CA 94954

Phone +1 707 766 2000  
Fax +1 707 789 0414  
www.cardno.com

www.cardnoeri.com

**SUBJECT**      **Well Destruction Report**  
Former Exxon Service Station 74121  
10605 Foothill Boulevard, Oakland, California

Alameda County No. RO0002635

Ms. Sedlachek:

At the request of ExxonMobil Environmental Services (EMES), on behalf of Exxon Mobil Corporation, Cardno ERI prepared this report detailing the destruction of groundwater monitoring wells MW1 through MW3 and MW5 and soil vapor sampling wells VW1 through VW6, VW9 through VW12, VW3R, VW4R, VW11R, and VW12R at the subject site (Plate 1). In electronic correspondence dated September 25, 2012, the Alameda County Health Care Services, Environmental Health Department (the ACEH) notified Cardno ERI that no comments were received during the 30 day public comment period from August 17 through September 24, 2012, regarding the proposed case closure. The ACEH stated that prior to issuance of a remedial action completion certification, the wells had to be decommissioned (Appendix A). The purpose of this work was to destroy the wells and prepare the site for issuance of the remedial action completion certification and case closure.

## **SITE DESCRIPTION**

Former Exxon Service Station 74121 is located at 10605 Foothill Boulevard in Oakland, California (Plate 1). The surrounding area consists of commercial and residential properties. The subject site is a former Exxon service station. Currently the site is an undeveloped, vacant lot on the south corner of the intersection of Foothill

November 14, 2012  
Cardno ERI 2780C.R04 Former Exxon Service Station 74121, Oakland, California

Boulevard and 106<sup>th</sup> Avenue. The site is bordered by residential properties and a shopping center. The USTs were removed from the site prior to 1998. Select site features are shown on Plate 2.

## **FIELD ACTIVITIES**

Field activities were conducted under the advisement of a State of California professional geologist, in accordance with the Alameda County Public Works (the County) requirements, a site-specific health and safety plan, and the field protocol for well destruction (Appendix B).

### **Pre-Field Activities**

Prior to field activities, Cardno ERI obtained the required permits for well destructions from the County. Copies of the permits are presented in Appendix C. The property owners and the County were notified at least one week prior to the start of work. Underground Service Alert was notified at least 48 hours prior to the start of fieldwork to mark buried utilities. In addition, Cardno ERI contracted with a private utility locating firm.

### **Well Destruction Activities**

On October 14, 2012, Cardno ERI observed Woodward Drilling Company (Woodward), of Rio Vista, California, conduct well destruction activities at the site. Well construction details and boring logs are presented in Appendix D. Because of construction on the neighboring property, work was performed on a Sunday to allow parking on the site during the week. The County approved working on Sunday, but required that photos documenting the well destructions be sent to Ms. Vicky Hamlin with the County. Upon receipt of the photos, the County approved the destruction methods.

Well destruction activities for wells MW1 through MW3 and MW5 were completed as follows:

- Each well was grouted with neat cement grout from total depth to surface.
- Each well was placed under 25 psi of pressure for 5 minutes.
- The well vault of each well was removed and the area was capped with soil to match the surrounding area.

Well destruction activities for wells VW1 through VW6, VW9 through VW12, VW3R, VW4R, VW11R, and VW12R were completed as follows.

- The well vault for each well was removed.
- Each well was drilled out to 6 feet bgs, using a 6-inch hollow-stem auger.
- The boring for each well was filled with neat cement and the area was capped with soil to match the surrounding area.

November 14, 2012  
Cardno ERI 2780C.R04 Former Exxon Service Station 74121, Oakland, California

California Department of Water Resources (DWR) well destruction forms (DW-188s) were completed, signed by the licensed driller, and submitted to the County under separate cover, for submittal to the DWR.

### **Waste Management Plan**

Soil generated during well destruction activities was temporarily stored on site in two 55-gallon DOT-approved drums. On October 23, 2012, Cardno ERI observed Belshire remove the drums for transport to TPST for recycling. Disposal documentation is included in Appendix E.

### **CONCLUSIONS**

Groundwater monitoring wells MW1 through MW3 and MW5 and soil vapor sampling wells VW1 through VW6, VW9 through VW12, VW3R, VW4R, VW11R, and VW12R have been destroyed. Waste associated with these activities has been removed from the site.

### **RECOMMENDATIONS**

Cardno ERI recommends site closure and issuance of the remedial action completion certification.

### **CONTACT INFORMATION**

The responsible party contact is Ms. Jennifer C. Sedlachek, ExxonMobil Environmental Services, 4096 Piedmont Avenue #194, Oakland, California, 94611. The consultant contact is Ms. Rebekah A. Westrup, Cardno ERI, 601 North McDowell Boulevard, Petaluma, California, 94954. The agency contact is Mr. Jerry Wickham, Alameda County Health Care Services Agency, Environmental Health Services, 1131 Harbor Bay Parkway, Suite 250, Alameda, California, 94502-6577.

### **LIMITATIONS**

For any documents cited that were not generated by Cardno ERI, the data taken from those documents is used "as is" and is assumed to be accurate. Cardno ERI does not guarantee the accuracy of this data and makes no warranties for the referenced work performed nor the inferences or conclusions stated in these documents.

This document was prepared in accordance with generally accepted standards of environmental, geological and engineering practices in California at the time of investigation. No soil engineering or geotechnical references are implied or should be inferred. The evaluation of the geologic conditions at the site for this investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points.

November 14, 2012  
Cardno ERI 2780C.R04 Former Exxon Service Station 74121, Oakland, California

Please contact Ms. Rebekah A. Westrup, Cardno ERI's project manager for this site, at [rebekah.westrup@cardno.com](mailto:rebekah.westrup@cardno.com) or at (707) 766-2000 with any questions regarding this report.

Sincerely,

  
SCANNED  
IMAGE

  
SCANNED  
IMAGE



Rebekah A. Westrup  
Senior Staff Geologist  
for Cardno ERI  
707 766 2000  
Email: [rebekah.westrup@cardno.com](mailto:rebekah.westrup@cardno.com)

David R. Daniels  
P.G. 8737  
for Cardno ERI  
707 766 2000  
Email: [david.daniels@cardno.com](mailto:david.daniels@cardno.com)

cc: Mr. Jerry Wickham, Alameda County Health Care Services Agency, Department of Environmental Health, 1131 Harbor Bay Parkway, Room 250, Alameda, California, 94502-6577

Mr. John Jay, MacArthur Boulevard Associates, 10700 MacArthur Boulevard, Suite 200, Oakland, California 94605

Enclosures:

Acronym List

Plate 1 Site Vicinity Map

Plate 2 Generalized Site Plan

Appendix A Correspondence

Appendix B Field Protocol

Appendix C Permits

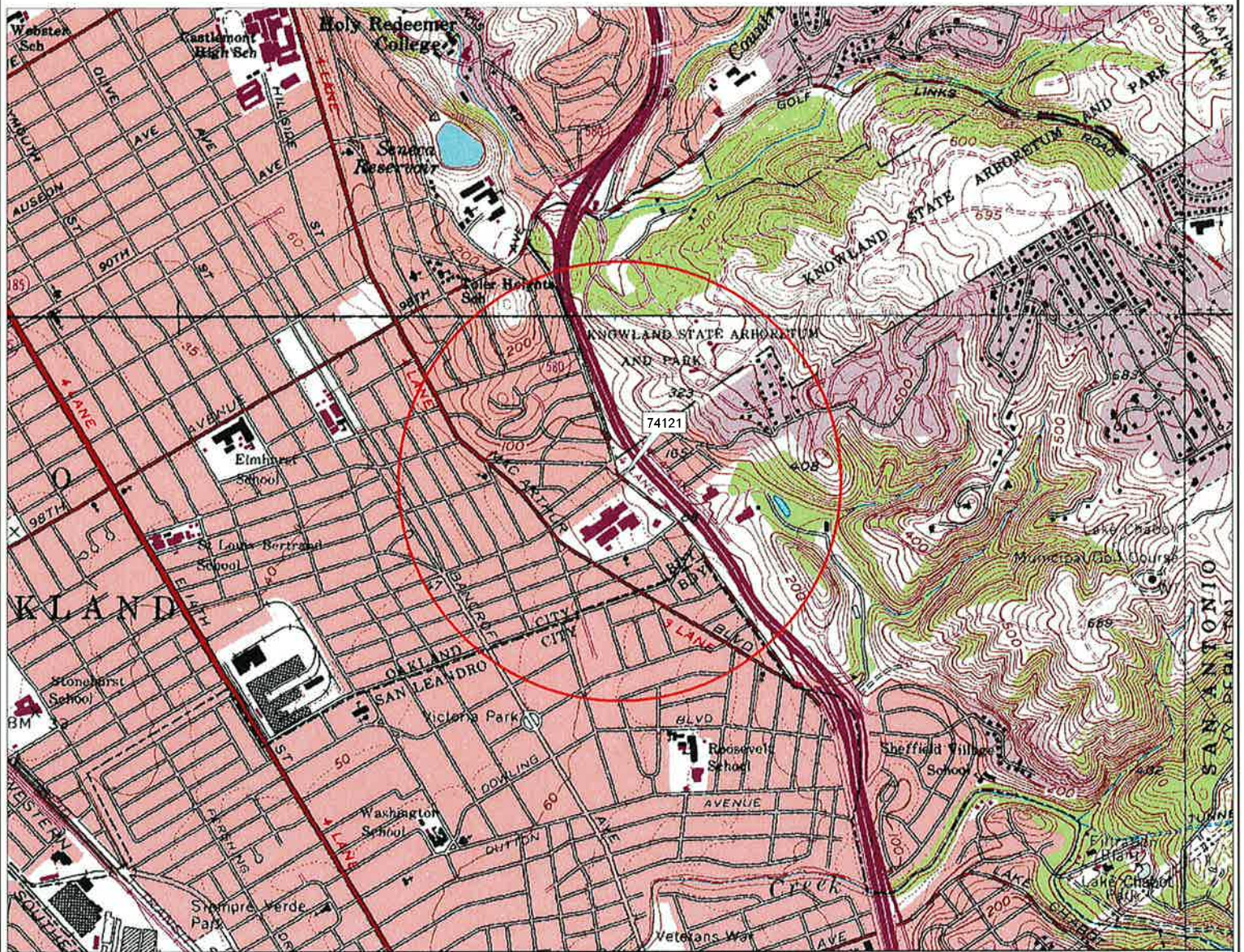
Appendix D Boring Logs and Well Construction Details

Appendix E Disposal Documentation

November 14, 2012  
 Cardno ERI 2780C.R04 Former Exxon Service Station 74121, Oakland, California

## ACRONYM LIST

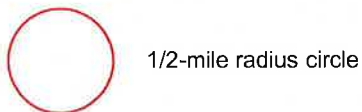
µg/L	Micrograms per liter	NEPA	National Environmental Policy Act
µs	Microsiemens	NGVD	National Geodetic Vertical Datum
1,2-DCA	1,2-dichloroethane	NPDES	National Pollutant Discharge Elimination System
acfm	Actual cubic feet per minute	O&M	Operations and Maintenance
AS	Air sparge	ORP	Oxidation-reduction potential
bgs	Below ground surface	OSHA	Occupational Safety and Health Administration
BTEX	Benzene, toluene, ethylbenzene, and total xylenes	OVA	Organic vapor analyzer
CEQA	California Environmental Quality Act	P&ID	Process & Instrumentation Diagram
cfm	Cubic feet per minute	PAH	Polycyclic aromatic hydrocarbon
COC	Chain of Custody	PCB	Polychlorinated biphenyl
CPT	Cone Penetration (Penetrometer) Test	PCE	Tetrachloroethene or perchloroethylene
DIPE	Di-isopropyl ether	PID	Photo-ionization detector
DO	Dissolved oxygen	PLC	Programmable logic control
DOT	Department of Transportation	POTW	Publicly owned treatment works
DPE	Dual-phase extraction	ppmv	Parts per million by volume
DTW	Depth to water	PQL	Practical quantitation limit
EDB	1,2-dibromoethane	psi	Pounds per square inch
EPA	Environmental Protection Agency	PVC	Polyvinyl chloride
ESL	Environmental screening level	QA/QC	Quality assurance/quality control
ETBE	Ethyl tertiary butyl ether	RBSL	Risk-based screening levels
FID	Flame-ionization detector	RCRA	Resource Conservation and Recovery Act
fpm	Feet per minute	RL	Reporting limit
GAC	Granular activated carbon	scfm	Standard cubic feet per minute
gpd	Gallons per day	SSTL	Site-specific target level
gpm	Gallons per minute	STLC	Soluble threshold limit concentration
GWPTS	Groundwater pump and treat system	SVE	Soil vapor extraction
HVOC	Halogenated volatile organic compound	SVOC	Semivolatile organic compound
J	Estimated value between MDL and PQL (RL)	TAME	Tertiary amyl methyl ether
LEL	Lower explosive limit	TBA	Tertiary butyl alcohol
LPC	Liquid-phase carbon	TCE	Trichloroethene
LRP	Liquid-ring pump	TOC	Top of well casing elevation; datum is msl
LUFT	Leaking underground fuel tank	TOG	Total oil and grease
LUST	Leaking underground storage tank	TPHd	Total petroleum hydrocarbons as diesel
MCL	Maximum contaminant level	TPHg	Total petroleum hydrocarbons as gasoline
MDL	Method detection limit	TPHmo	Total petroleum hydrocarbons as motor oil
mg/kg	Milligrams per kilogram	TPHs	Total petroleum hydrocarbons as stoddard solvent
mg/L	Milligrams per liter	TRPH	Total recoverable petroleum hydrocarbons
mg/m <sup>3</sup>	Milligrams per cubic meter	UCL	Upper confidence level
MPE	Multi-phase extraction	USCS	Unified Soil Classification System
MRL	Method reporting limit	USGS	United States Geologic Survey
msl	Mean sea level	UST	Underground storage tank
MTBE	Methyl tertiary butyl ether	VCP	Voluntary Cleanup Program
MTCA	Model Toxics Control Act	VOC	Volatile organic compound
NAI	Natural attenuation indicators	VPC	Vapor-phase carbon
NAPL	Non-aqueous phase liquid		



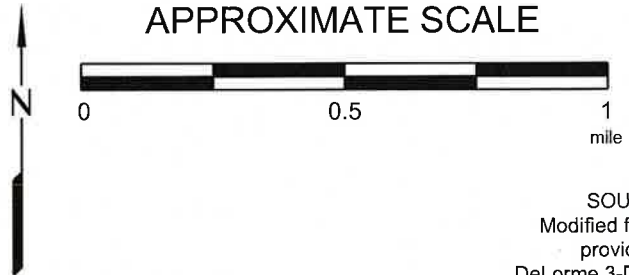
DeLORME  
 © 2002 DeLorme, 3-D TopoQuads. Data copyright of content owner.  
 www.delorme.com

FN 2780 TOPO

**EXPLANATION**



**APPROXIMATE SCALE**

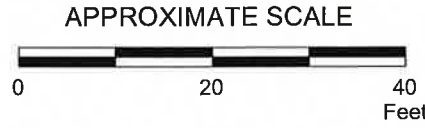
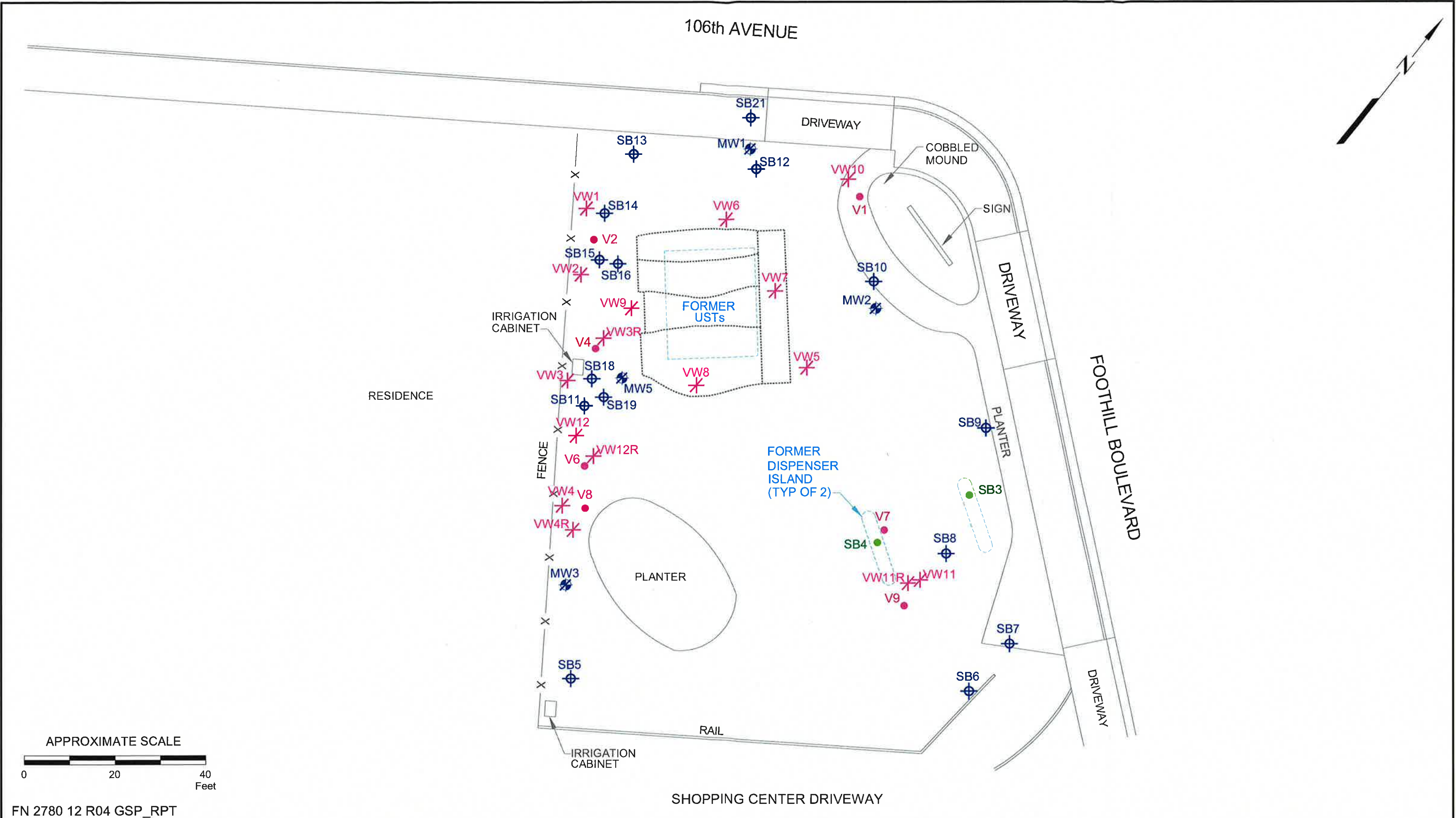


SOURCE:  
 Modified from a map  
 provided by  
 DeLorme 3-D TopoQuads



**SITE VICINITY MAP**  
 FORMER EXXON SERVICE STATION 74121  
 10605 Foothill Boulevard  
 Oakland, California

**PROJECT NO.**  
 2780  
**PLATE**  
 1



FN 2780 12 R04 GSP\_RPT



**GENERALIZED SITE PLAN**  
 FORMER EXXON SERVICE STATION 74121  
 10605 Foothill Boulevard  
 Oakland, California

**EXPLANATION**

MW5	Destroyed Groundwater Monitoring Well
VW12	Destroyed Soil Vapor Sampling Well

SB21	Direct Push Boring
SB4	Soil Boring
V9	Soil Vapor Probe

<b>PROJECT NO.</b>	2780
<b>PLATE</b>	2



## **APPENDIX A**

### **CORRESPONDENCE**

ALAMEDA COUNTY  
**HEALTH CARE SERVICES**  
AGENCY  
ALEX BRISCOE, Director



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

September 25, 2012

Ms. Jennifer Sedlachek (Sent via E-mail to: [jennifer.c.sedlachek@exxonmobil.com](mailto:jennifer.c.sedlachek@exxonmobil.com))  
Exxon Mobil  
4096 Piedmont, #194  
Oakland, CA 94611

MacArthur Boulevard Associates  
c/o Mr. John Jay, Management Agent (Sent via E-mail to: [johnjay@jayphares.com](mailto:johnjay@jayphares.com))  
10700 MacArthur Boulevard, Suite 200  
Oakland, CA 94605

Subject: Well Decommissioning for Fuel Leak Case No. RO0002635 and GeoTracker Global ID T0600120383, Exxon #7-4121, 10605 Foothill Boulevard, Oakland, CA 94605

Dear Ms. Sedlachek and Mr. Jay:

Alameda County Environmental Health (ACEH) have reviewed the fuel leak case file and case closure summary for the above-referenced site and concur that no further action related to the underground storage tank fuel release is required at this time. No comments were received on the proposed case closure during a public comment period conducted between August 17, 2012 and September 24, 2012. Prior to issuance of remedial action completion certification and case closure, we request that the monitoring wells at the site be properly decommissioned, should the monitoring wells have no further use at the site. Please decommission the monitoring wells and provide documentation of the well decommissioning to this office no later than December 31, 2012. Remedial action completion certification will be issued following receipt of the documentation.

Well destruction permits may be obtained from the Alameda County Public Works Agency (<http://www.acgov.org/pwa/wells/index.shtml>). If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org).

The case will be closed with the following site management requirements:

*"Case closure for this fuel leak site is granted for the current land use as a landscaped area without buildings or as a gasoline service station. If a change in land use to any residential land use, commercial land use other than a gasoline service station, or other conservative land use occurs at this site, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. Due to the potential for vapor intrusion to indoor air in future buildings within a portion of the site, ACEH will re-evaluate the case upon receipt of approved development/construction plans.*

*Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party (or current*

*property owner/developer) prior to and during excavation and construction activities. This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination on site."*

### **TECHNICAL REPORT REQUEST**

Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **December 31, 2012** – Well Decommissioning Report  
File to be named: WELL\_DCM\_R\_yyyy-mm-dd RO2635

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

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

Sincerely,



Digitally signed by Jerry Wickham  
DN: cn=Jerry Wickham, o=Environmental Health,  
ou=Alameda County, email=jerry.wickham@acgov.org, c=US  
Date: 2012.09.25 09:42:26 -07'00'

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

Attachments: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

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

Cardno ERI, Attn: Rebekah Westrup, 601 North McDowell, Petaluma, CA 94954 (Sent via E-mail to: [rebekah.westrup@cardno.com](mailto:rebekah.westrup@cardno.com))

Peter McIntyre, AEI Consultants, 2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597 (Sent via E-mail to: [pmcintyre@aeiconsultants.com](mailto:pmcintyre@aeiconsultants.com))

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

GeoTracker, eFile

## **APPENDIX B**

### **FIELD PROTOCOL**

## **Cardno ERI Well Destruction Field Protocol**

All destruction techniques and methods should be Environmental Protection Agency, American Society of Testing and Materials, and appropriate regulatory agency approved methodologies.

### **Preliminary Activities**

Prior to the onset of field activities at the site, Cardno ERI obtains the appropriate permit(s) from the governing agency(s). Advance notification is made as required by the agency(s) prior to the start of work. Cardno ERI marks the borehole locations and contacts the local one call utility locating service at least 48 hours prior to the start of work to mark buried utilities. Borehole locations may also be checked for buried utilities by a private geophysical surveyor. Prior to well destruction, the well borehole is cleared in accordance with the client's procedures. Fieldwork is conducted under the advisement of a registered professional geologist and in accordance with an updated site-specific safety plan prepared for the project, which is available at the job site during field activities.

### **Overdrilling Well Destruction Procedures**

Each well to be destroyed is overdrilled to its respective total depth. The drill rig is equipped with a continuous flight hollow-stem auger of equal or greater size than the original well borehole. After the annular space backfill and casing(s) are removed from each well by overdrilling, the well borehole is backfilled by pumping the agency-specified sealing material through a tremie pipe placed within the augers to the total depth of the borehole. Each well borehole is backfilled from its respective total depth to within approximately 5 feet of surface grade. After the seal hardens, the remaining annular space of each well borehole is either backfilled with hydrated bentonite chips to approximately 2 feet below ground surface (bgs) followed by sand to the base of the pavement (or 6 inches below grade if no pavement is present), or backfilled with neat cement grout to just below surface grade. The destruction of each well is completed to surface grade with material that best matches existing surface conditions and meets local agency requirements.

### **Pressure Grouting Well Destruction Procedures**

Due to the potential close proximity of wells to buried utility lines, subsurface structures or surface structures, wells may be destroyed in place by pressure grouting. Prior to pressure grouting a well, the total depth of the well's casing is measured and compared to the well's original borelog and construction details to verify that obstructions are not present. If present, obstructions that would prevent adequate filling of the well must be removed before pressure grouting. An agency-specified sealing material is then pumped under pressure into the casing of the well. Pressure grouting must be continued until a sufficient amount of sealing material has been emplaced to ensure that the sand filter pack and well casing are filled to within 5 feet of surface grade. The amount of sealing material needed can be calculated using the following equation:

$$\text{Sealant (cubic feet)} = L * (R_b^2 + 2.1 * R_c^2)$$

Where L is the length of casing (feet) to be filled (total length minus 5 feet),  
R<sub>b</sub> is the radius (feet) of the borehole and  
R<sub>c</sub> is the radius (feet) of the casing.

After the seal hardens, the well casing is removed to a depth required by client or local agency. The open hole is either backfilled with 3 feet of hydrated bentonite chips followed by 1½ feet of sand to approximately 6 inches bgs, or backfilled with neat cement grout to just below surface grade. The remaining hole is completed with material that best matches existing surface conditions and meets local agency requirements.

**Soil Sampling Procedures**

If drilling has not been recently conducted at the site, Cardno ERI collects a profile sample from the soil cuttings using a 6-inch long brass sleeve. The brass sleeve is sealed with Teflon™ tape, capped, placed in a cooler chilled to 4° Celsius and transported to a state-certified laboratory under proper chain-of-custody protocol.

**Air Monitoring Procedures**

Cardno ERI performs a field evaluation for volatile hydrocarbon concentrations in the breathing zone using a calibrated photo-ionization detector or lower explosive level meter.

**Waste Treatment and Soil Disposal**

Soil cuttings generated from the well destruction are stored on site in labeled, Department of Transportation-approved, 55-gallon drums or other appropriate storage container. The soil is removed from the site and transported under manifest to a client- and regulatory-approved facility for recycling or disposal. Decontamination fluids are stored on site in labeled, regulatory-approved storage containers. Fluids are subsequently transported under manifest to a client- and regulatory-approved facility for disposal or treated with a permitted mobile or fixed-base carbon treatment system.

## **APPENDIX C**

### **PERMITS**

# Alameda County Public Works Agency - Water Resources Well Permit



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

**Application Approved on: 10/03/2012 By jamesy**

**Permit Numbers: W2012-0715 to W2012-0719  
Permits Valid from 10/11/2012 to 10/31/2012**

**Application Id:** 1348854145269  
**Site Location:** 10605 Foothill Blvd, Oakland, CA  
**Project Start Date:** 10/11/2012  
**Assigned Inspector:** Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

**City of Project Site:**Oakland  
**Completion Date:**10/31/2012

**Applicant:** CARDNO ER - Rebekah A Westrup  
601 N McDowell Bl, Petaluma, CA 94954  
**Property Owner:** MacArthur Blvd. Association  
10700 MacArthur Blvd, Ste 200, Oakland, CA 94605  
**Client:** ExxonMobil Oil Corp  
4096 Piedmont Ave #194, Oakland, CA 94611

**Phone:** 707-766-2000  
**Phone:** --  
**Phone:** 510-547-8196

	<b>Total Due:</b>	\$1853.00
<b>Receipt Number: WR2012-0326</b>	<b>Total Amount Paid:</b>	\$1853.00
<b>Payer Name : Environmental Resolutions, Inc.</b>	Paid By: CHECK	<b>PAID IN FULL</b>

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## Works Requesting Permits:

Well Destruction-Monitoring - 4 Wells  
Driller: Woodward - Lic #: 710079 - Method: Hand

**Work Total: \$1588.00**

### Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2012-0715	10/03/2012	01/09/2013	MW1	8.00 in.	2.00 in.	0.00 ft	26.50 ft			
W2012-0716	10/03/2012	01/09/2013	MW2	8.00 in.	2.00 in.	0.00 ft	26.50 ft			
W2012-0717	10/03/2012	01/09/2013	MW3	8.00 in.	2.00 in.	0.00 ft	26.50 ft			
W2012-0718	10/03/2012	01/09/2013	MW5	8.00 in.	2.00 in.	0.00 ft	26.50 ft			

### Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

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

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and



## Alameda County Public Works Agency - Water Resources Well Permit

mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
5. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.
6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
8. Remove the Christy box or similar structure.

Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil.

After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
10. Applicant shall document the well destructions and submit the required information within 10 days from the completion of work.

Well Destruction-Vapor monitoring well - 16 Wells

Driller: Woodward - Lic #: 710079 - Method: Hand

**Work Total: \$265.00**

**Specifications**

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2012-0719	10/03/2012	01/09/2013	VW1	6.00 in.	0.25 in.	0.00 ft	6.00 ft			
W2012-0719	10/03/2012	01/09/2013	VW10	6.00 in.	0.25 in.	0.00 ft	6.00 ft			
W2012-0719	10/03/2012	01/09/2013	VW11	6.00 in.	0.25 in.	0.00 ft	6.00 ft			
W2012-0719	10/03/2012	01/09/2013	VW11R	3.25 in.	0.25 in.	0.00 ft	5.00 ft			
W2012-0719	10/03/2012	01/09/2013	VW12	6.00 in.	0.25 in.	0.00 ft	6.00 ft			

## Alameda County Public Works Agency - Water Resources Well Permit

W2012-0719	10/03/2012	01/09/2013	VW12R	3.25 in.	0.25 in.	0.00 ft	5.00 ft
W2012-0719	10/03/2012	01/09/2013	VW2	6.00 in.	0.25 in.	0.00 ft	6.00 ft
W2012-0719	10/03/2012	01/09/2013	VW3	6.00 in.	0.25 in.	0.00 ft	6.00 ft
W2012-0719	10/03/2012	01/09/2013	VW3R	3.25 in.	0.25 in.	0.00 ft	5.00 ft
W2012-0719	10/03/2012	01/09/2013	VW4	6.00 in.	0.25 in.	0.00 ft	6.00 ft
W2012-0719	10/03/2012	01/09/2013	VW4R	3.35 in.	0.25 in.	0.00 ft	5.00 ft
W2012-0719	10/03/2012	01/09/2013	VW5	6.00 in.	0.25 in.	0.00 ft	6.00 ft
W2012-0719	10/03/2012	01/09/2013	VW6	6.00 in.	0.25 in.	0.00 ft	6.00 ft
W2012-0719	10/03/2012	01/09/2013	VW7	6.00 in.	0.25 in.	0.00 ft	6.00 ft
W2012-0719	10/03/2012	01/09/2013	VW8	6.00 in.	0.25 in.	0.00 ft	6.00 ft
W2012-0719	10/03/2012	01/09/2013	VW9	6.00 in.	0.25 in.	0.00 ft	6.00 ft

### Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
2. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days, including permit number and site map.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
5. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
6. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

## Alameda County Public Works Agency - Water Resources Well Permit

7. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
8. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
9. Remove the Christy box or similar structure.

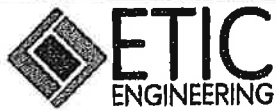
Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil.

After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
  11. Vapor monitoring wells constructed with tubing shall be decommissioned by complete removal of tubing, grout seal, and fill material of sand or bentonite. Fill material may be removed by hand auger if material can be removed completely.
- Vapor monitoring wells constructed with pvc pipe less than 2" shall be overdrilled to total depth.
- Vapor monitoring wells constructed with 2" pvc pipe or larger may be grouted by tremie pipe (any depth) or pressure grouted (less than 30', 25 psi for 5 min).
12. Applicant shall document the well destructions and submit the required information within 10 days from the completion of work.
-

## **APPENDIX D**

### **BORING LOGS AND WELL CONSTRUCTION DETAILS**



CLIENT ExxonMobil	SITE NUMBER 7-4121	LOCATION 10605 Foothill Blvd Oakland, California
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LOG OF SOIL BORING: **MW1**

DRILLING AND SAMPLING METHODS: Cleared using an air-knife and vacuum rig to 5 feet bgs. Advanced using a limited access auger rig with 8-inch diameter augers. Sampled with an 18-inch long split spoon modified California sampler.

COORDINATES: N2097737.2 :E6084704  
 ELEVATION TOP OF CASING: 82.47  
 CASING BELOW SURFACE:

WATER LEVEL	▽ 21	▽ 16.55		START	FINISH
TIME	0910	1315		TIME	TIME
DATE	1/23/07	1/24/07		0820	1050
REFERENCE	GS	GS		DATE	DATE
				1/23/07	1/23/07

DRILLING COMPANY: Cascade  
 LICENSE NUMBER: C57-717510

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING							Top soil/Grass	
				0						DESCRIPTION BY: E. Appel	
				1						DETAILS	
				2						SILTY CLAY - dark olive brown (2.5Y 4/4), stiff, low to moderate plasticity, slightly moist	
				3						Single bolt, water tight Morrison well box	
				4						Neat cement grout from 1 to 6 feet bgs	
				5						2-inch I.D. schedule 40 PVC riser casing from ground surface to 10 feet bgs	
				6						- becoming yellowish-brown (10YR 3/3)	
18	6	7		7						- very stiff to hard	
		13		8						Bentonite chips from 6 to 8 feet bgs.	
		23	0.9	9						- very hard	
18	15	14		10						#2/12 sand from 8 to 25 feet bgs	
		21		11						CLAYEY SILT - yellowish-brown (10YR 3/3), very hard, low plasticity, slightly moist.	
		40	1.3	12						2-inch I.D. 0.010 inch slot, schedule 40 PVC screen from 10 to 25 feet bgs. Threaded PVC cap at 25 feet bgs.	
18	18	8									
		28	0.5								
		33									
18	6	4									
		21									

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 3/25/07



CLIENT

ExxonMobil

SITE NUMBER

7-4121

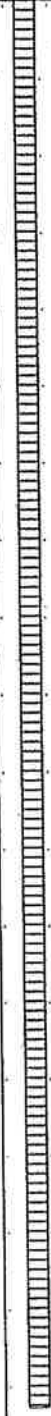
LOCATION

10605 Foothill Blvd  
Oakland, California

LOG OF SOIL BORING:

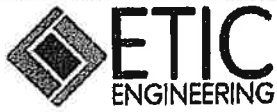
**MW1**

INCHES		BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	LOG OF SOIL BORING: MW1
DRIVEN	RECOVER								
		40	0.3						
18	18	8		13			ML	- moist	
		25		14					
		26	2.1	15				<b>SILTY SAND</b> - olive (5Y 4/3), to olive gray (5Y 4/2), medium dense, fine grained, very moist.	
18	15	6		16					
		8		17			SM		
		11		18					
18	12	11		19				<b>POORLY GRADED SAND</b> - olive gray (5Y 4/2), dense, fine to medium grained, wet.	
		10	0.6	20					
		10		21				- medium to coarse grained	
18	18	7		22			SP		
		16		23					
		21	24	24					
18	6	9		25				Boring terminated at 25 feet bgs.	
		24		26					
		27	134	27					
18	0	13							
		18							
		26							



Borehole depth at 25 feet bgs

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 3/29/07



CLIENT ExxonMobil	SITE NUMBER 7-4121	LOCATION 10605 Foothill Blvd Oakland, California
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LOG OF SOIL BORING: **MW2**

COORDINATES: N2067726.8 :E6084748.5  
 ELEVATION TOP OF CASING: 84.40  
 CASING BELOW SURFACE:

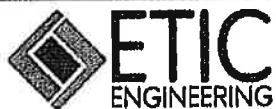
DRILLING COMPANY: Cascade  
 LICENSE NUMBER: C57-717510

DRILLING AND SAMPLING METHODS: Cleared using an air-knife and vacuum rig to 5 feet bgs. Advanced using a limited access auger rig with 8-inch diameter augers. Sampled with an 18-inch long split spoon modified California sampler.

WATER LEVEL	▽ 15	▽ 18.3		START	FINISH
TIME	1125	1320		TIME	TIME
DATE	1/23/07	1/24/07		1055	1230
REFERENCE	GS	GS		DATE	DATE
				1/23/07	1/23/07

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING						Top soil/Grass	
				0					DESCRIPTION BY: E. Appel	DETAILS
				1					<p><b>SILTY CLAY</b> - dark grayish brown (10YR 4/2), stiff, medium plasticity, slightly moist</p> <p>- yellowish brown (10YR 3/3), very stiff</p> <p>- hard, some caliche stringers</p> <p><b>CLAYEY SILT</b> - yellowish brown (10YR 3/3), hard, low plasticity, slightly moist to moist.</p>	<p>Single bolt, water tight Morrison well box</p> <p>Neat cement grout from 1 to 6 feet bgs</p> <p>2-inch I.D. schedule 40 PVC riser casing from ground surface to 10 feet bgs.</p> <p>Bentonite chips from 6 to 8 feet bgs</p> <p>#2/12 sand from 8 to 25 feet bgs.</p> <p>2-inch I.D. 0.010 inch slot, schedule 40 PVC screen from 10 to 25 feet bgs. Threaded PVC cap at 25 feet bgs.</p>
				2						
				3						
				4						
				5				CL		
18	9	5		6						
		9		6						
		14	0.0	7						
18	10	12		8						
		24		8						
		39	0.3	9						
18	12	8		10						
		17		10						
		26	0.0	11				ML		
18	12	13		12						
		18		12						

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 3/29/07



CLIENT  
ExxonMobil

SITE NUMBER  
7-4121

LOCATION  
10605 Foothill Blvd  
Oakland, California

INCHES		BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	LOG OF SOIL BORING:	
DRIVEN	RECOVER								MW2	
		24	0.3							
18	9	7		13			ML			
		19		14						
		28	0.2	15			SP		POORLY GRADED SAND - olive gray (5Y 4/4), medium dense, fine grained, wet.	
18	18	12		15					CLAYEY SILT - yellowish brown (10YR 3/3), hard, low plasticity, wet.	
		19		16						
		27	1.3	16			ML			
18	12	6		17					SILTY SAND - olive gray (5Y 4/4), medium dense, fine grained, wet.	
		11		18						
		20	1.5	18						
18	15	16		19						
		20		20						
		21		20						
18	12	7		21					SAND WITH SILT - olive gray (5Y 4/4), medium dense, fine to medium grained with some lenses of coarse grained, wet.	
		13		22						
		17	17.2	22						
18	14	8		23					- diminishing silt. dense to medium dense	
		16		24			SP			
		19	155.3	24						
18	18	5		25						
		16		26					- dense	
		25	1,498	26						
				27						

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 3/29/07

Boring terminated at 26.5 feet bgs. Borehole depth at 26.5 feet bgs





CLIENT ExxonMobil	SITE NUMBER 7-4121	LOCATION 10605 Foothill Blvd Oakland, California
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DRILLING AND SAMPLING METHODS: Cleared using an air-knife and vacuum rig to 5 feet bgs. Advanced using a limited access auger rig with 8-inch diameter augers. Sampled with an 18-inch long split spoon modified California sampler.

LOG OF SOIL BORING: **MW3**

COORDINATES: N2097634.7 :E6084733.1  
 ELEVATION TOP OF CASING: 83.25  
 CASING BELOW SURFACE:

WATER LEVEL	20.5	16.9		START TIME	FINISH TIME
TIME	0935	1325		0825	1030
DATE	1/24/07	1/24/07		DATE	DATE
REFERENCE	GS	GS		1/24/07	1/24/07

DRILLING COMPANY: Cascade  
 LICENSE NUMBER: C57-717510

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING						Top soil/Grass	
				0					DESCRIPTION BY: E. Appel	DETAILS
				1					SILTY CLAY - very dark gray (10YR 3/1), medium stiff, moderate plasticity, slightly moist to moist.	Single bolt, water tight Morrison well box Neat cement grout from 1 to 6 feet bgs
				2						
				3					- very stiff	2-inch I.D. schedule 40 PVC riser casing from ground surface to 10 feet bgs.
				4						
18	18	3		5			CL		- dark yellowish brown (10YR 3/4)	Bentonite chips from 6 to 8 feet bgs.
		9		6						
		12	0.0	7					CLAYEY SILT - dark yellowish brown (10YR 4/6), hard, low plasticity, trace of fine grained sand. moist	#2/12 sand from 8 to 26 feet bgs.
				8						
18	18	4		9					ML	2-inch I.D. 0.010 inch slot, schedule 40 PVC screen
		9		10						
		14	0.0	11						
18	14	10		12						
		20								
		32	0.3							
18	18	8								
		12								

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 3/29/07



CLIENT  
ExxonMobil

SITE NUMBER  
7-4121

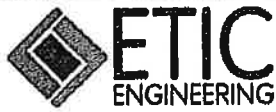
LOCATION  
10605 Foothill Blvd  
Oakland, California

LOG OF SOIL BORING:

**MW3**

INCHES		BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	LOG OF SOIL BORING: MW3	from 10 to 25 feet bgs. Threaded PVC cap at 25 feet bgs
DRIVEN	RECOVER									
		26	0.2					- less clay, more sand		
18	15	7		13			ML			
		19		14				- less sand, more clay		
		27	0.0	15				<b>SANDY SILT WITH CLAY</b> - dark yellowish brown (10YR 4/6), very stiff, low plasticity, moist		
18	18	5		16						
		14		16						
		29	0.7	17			ML			
18	13	11		18				- very moist		
		19		18						
		27	0.4	19				<b>SILT WITH CLAY</b> - dark yellowish brown (10YR 4/6), very stiff, low plasticity, moist		
18	15	6		20			ML			
		13		20						
		22	0.1	21						
18	14	7		22				<b>SANDY SILT</b> - dark yellowish brown (10YR 4/6), very stiff to hard, low plasticity, fine grained sand, very moist.		
		16		22						
		20	1.5	23			ML			
18	17	10		24				<b>SILTY SAND</b> - dark yellowish brown (10YR 4/6). dense to medium dense, fine grained, moist to very moist.		
		12		24						
		23	0.4	25			SM			
18	18	9		26						
		16		26						
		21	0.2	27				Boring terminated at 26.5 feet bgs	Borehole depth at 26.55 feet bgs	

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 3/29/07



CLIENT ExxonMobil	SITE NUMBER 7-4121	LOCATION 10605 Foothill Blvd Oakland, California
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LOG OF SOIL BORING: **MW5**

DRILLING AND SAMPLING METHODS: Cleared using an air-knife and vacuum rig to 5 feet bgs. Advanced using a limited access auger rig with 8-inch diameter augers. Sampled with an 18-inch long split spoon modified California sampler

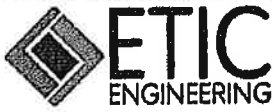
COORDINATES: N6084713.8 :E6084713.8  
 ELEVATION TOP OF CASING: 82.65  
 CASING BELOW SURFACE:

WATER LEVEL	▽ 19	▽ 10		START	FINISH
TIME	1440	1310		TIME	TIME
DATE	1/23/07	1/24/07		1400	1530
REFERENCE	GS	GS		DATE	DATE
				1/23/07	1/23/07

DRILLING COMPANY: Cascade  
 LICENSE NUMBER: C57-717510

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING							Top soil/Grass	
				0						DESCRIPTION BY: E. Appel	DETAILS
				1						SILTY CLAY - dark grayish brown (10YR 4/2), stiff, moderate plasticity, slightly moist  - yellowish brown (10YR 4/4)  - very stiff  - hard, some fine grained sand  CLAYEY SILT - yellowish brown (10YR 4/4), hard, low plasticity, slightly moist.	Single bolt, water tight Morrison well box Neat cement grout from 1 to 7 feet bgs  2-inch I.D. schedule 40 PVC riser casing from ground surface to 11 feet bgs.
				2							
				3							
				4							
				5							
18	12	4		6							
		12		7							
		21	4.6	8							
				9							
18	13	4		10							
		19		11							
		26	0.0	12							
				13							
		10		14							
18	12	20		15							
		29	0.5	16							
				17							
		12		18							
18	6	19		19							
				20							
				21							
				22							
				23							
				24							
				25							
				26							
				27							
				28							
				29							
				30							
				31							
				32							

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 3/29/07



CLIENT ExxonMobil	SITE NUMBER 7-4121	LOCATION 10605 Foothill Blvd Oakland, California
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INCHES		BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	LOG OF SOIL BORING: MW5	
DRIVEN	RECOVER								bgs.	
		30	0.0	13				ML		
18	18	6		13.5				CL	SILTY CLAY - yellowish brown (10YR 4/6), hard, low plasticity, moist.	
		16		14					SANDY SILT - olive gray (5Y 4/4), hard, low plasticity, fine grained sand, moist.	
		30	2.4	14.5				ML		
18	9	7		15						
		18		15.5					CLAYEY SILT - olive gray (5Y 4/4), hard, low plasticity, moist.	
		24	0.3	16				ML		
18	15	10		17						
		17		17.5					SILTY SAND - dark olive gray (5Y 3/2), dense, fine grained, very moist.	
		29	15.9	18						
				18.5				SM		
18	18	13		19					- wet	
		22		19.5						
		31	121.1	20					POORLY GRADED SAND - dark olive gray (5Y 3/2), dense, fine grained, wet	
18	18	8		21					- medium and coarse grained	
		14		21.5						
		23	3.0	22					- medium dense, fine grained with medium grains	
18	18	6		23						
		10		23.5				SP	- medium grained with some fine and coarse grains	
		19	8.7	24						
18	18	16		25					- dense	
		18		25.5						
		23	3.0	26					Boring terminated at 26.5 feet bgs.	
				26.5						
				27						

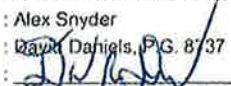
LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 3/25/07

Borehole depth at 26 feet bgs

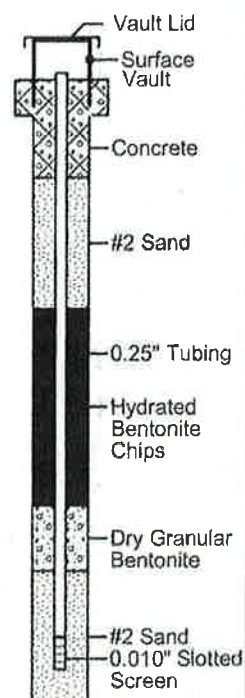
# BORING LOG VW3R

(Page 1 of 1)

Date Drilled: : 12/19/2011  
 Drilling Co.: : Cascade Drilling L.P.  
 Drilling Method: : Hand Auger  
 Sampling Method: : Hand Auger  
 Borehole Diameter: : 3.25"  
 Casing Diameter: : 0.25"  
 Location N-S : 13' North of VW3  
 Location E-W : 0.5' West of VW3  
 Total Depth: : 5 ft. bgs  
 First GW Depth: : N/A

Project No.: : Former Exxon Service Station 74121  
 Site: : 10605 Foothill Boulevard, Oakland, CA  
 Logged By: : Alex Snyder  
 Reviewed By: : David Daniels, P.G. 8737  
 Signature: 


Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	USCS	Sample Condition	Water Levels	Well: VW3R
						<input checked="" type="checkbox"/> No Recovery <input type="checkbox"/> Sampled Interval <input type="checkbox"/> Described Sample <input checked="" type="checkbox"/> Preserved Sample	<input type="checkbox"/> After Completion: N/A <input type="checkbox"/> During Drilling: N/A	
DESCRIPTION								
0						Grass		
					SC	Clayey SAND: fine- to medium-grained sand, brown, damp, subangular to subrounded, poorly graded (25,10,65,0)		
					SC	Clayey SAND: fine- to medium-grained, dark brown, damp, subangular to subrounded, poorly graded (35,0,65,0)		
					CL	Sandy CLAY: Dark brown, damp, low to moderate plasticity, sand fine- to medium-grained (60,0,40,0)		
5	2.4							
						Total Depth 5 feet bgs		
10								



# BORING LOG VW4R

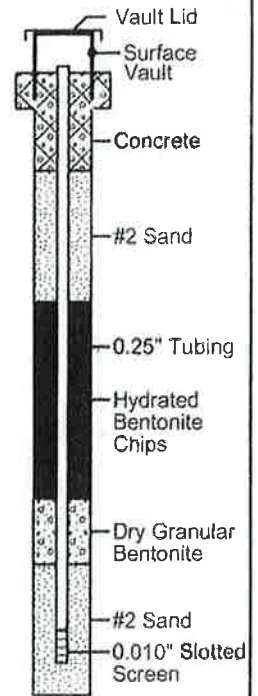
(Page 1 of 1)

Date Drilled: : 12/19/2011  
 Drilling Co.: : Cascade Drilling L.P.  
 Drilling Method: : Hand Auger  
 Sampling Method: : Hand Auger  
 Borehole Diameter: : 3.25"  
 Casing Diameter: : 0.25"  
 Location N-S : 1.5' South of VW4  
 Location E-W : 4' East of VW4  
 Total Depth: : 5 ft. bgs  
 First GW Depth: : N/A

Project No.: : Former Exxon Service Station 74121  
 Site: : 10605 Foothill Boulevard, Oakland, CA  
 Logged By: : Alex Snyder  
 Reviewed By: : David Daniels, R.G. 8/37  
 Signature: 

Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	USCS	Sample Condition	Water Levels	DESCRIPTION
						<input checked="" type="checkbox"/> No Recovery <input type="checkbox"/> Sampled Interval <input type="checkbox"/> Described Sample <input checked="" type="checkbox"/> Preserved Sample	<input type="checkbox"/> After Completion: N/A <input type="checkbox"/> During Drilling: N/A	
0								Grass
								Clayey SAND: fine- to medium-grained, brown, damp, subangular to subrounded, poorly graded, rootlets present (25,10,65,0)
					SC			Moist and dark brown at 2.5 feet bgs
								Sandy CLAY: dark brown, moist, low to moderate plasticity, sand fine- to moderate-grained (60,0,40,0)
					CL			
5		2.4						Total Depth 5 feet bgs

Well: VW4R



# BORING LOG VW11R

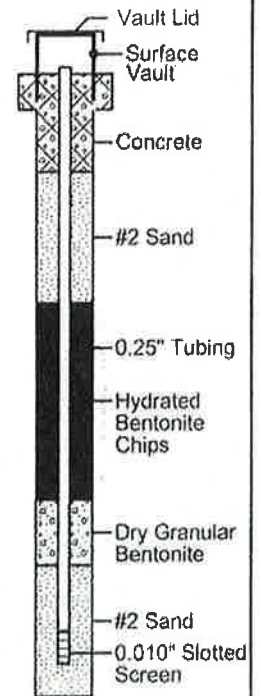
(Page 1 of 1)

Date Drilled: 12/19/2011  
 Drilling Co.: Cascade Drilling L.P.  
 Drilling Method: Hand Auger  
 Sampling Method: Hand Auger  
 Borehole Diameter: 3.25"  
 Casing Diameter: 0.25"  
 Location N-S: 2' South of VW11  
 Location E-W: 0.5' West of VW11  
 Total Depth: 5 ft. bgs  
 First GW Depth: N/A

Project No.: Former Exxon Service Station 74121  
 Site: 10605 Foothill Boulevard, Oakland, CA  
 Logged By: Alex Snyder  
 Reviewed By: David Daniels, A.G. 8737  
 Signature: *[Signature]*

Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	USCS	Sample Condition	Water Levels
						<input checked="" type="checkbox"/> No Recovery <input type="checkbox"/> Sampled Interval <input type="checkbox"/> Described Sample <input checked="" type="checkbox"/> Preserved Sample	<input type="checkbox"/> After Completion: N/A <input type="checkbox"/> During Drilling: N/A
DESCRIPTION							
0						Grass	
					SC	Clayey SAND with Gravel: fine- to medium-grained, dark brown, damp subangular to subrounded, poorly graded, (30,0,60,10)	
					SC	Clayey SAND: fine- to medium-grained, damp, brown, subangular to subrounded, poorly graded (15,0,85,0)	
					SC	Clayey SAND: fine- to medium-grained, damp, dark brown, subangular to subrounded, poorly graded (25,0,75,0)	
5	2.4					Total Depth 5 feet bgs	

Well: VW11R



# BORING LOG VW12R

(Page 1 of 1)

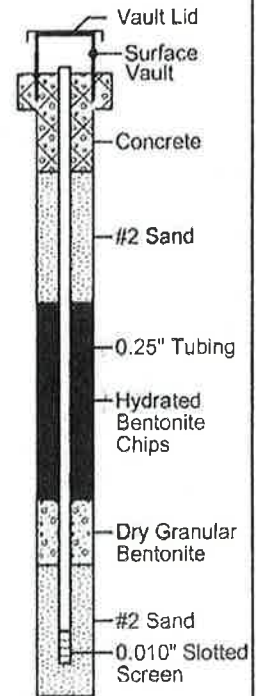
Date Drilled: : 12/19/2011  
 Drilling Co.: : Cascade Drilling L.P.  
 Drilling Method: : Hand Auger  
 Sampling Method: : Hand Auger  
 Borehole Diameter: : 3.25"  
 Casing Diameter: : 0.25"  
 Location N-S : 0.5' North of VW12  
 Location E-W : 5' East of VW12  
 Total Depth: : 5 ft. bgs  
 First GW Depth: : N/A

Project No.: : Former Exxon Service Station 74121  
 Site: : 10605 Foothill Boulevard, Oakland, CA  
 Logged By: : Alex Snyder  
 Reviewed By: : David Daniels, P.G. 8737  
 Signature: : *[Signature]*

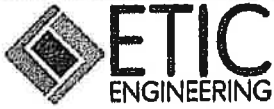
Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	USCS	Sample Condition	Water Levels
						<input checked="" type="checkbox"/> No Recovery <input type="checkbox"/> Sampled Interval <input type="checkbox"/> Described Sample <input checked="" type="checkbox"/> Preserved Sample	<input type="checkbox"/> After Completion: N/A <input type="checkbox"/> During Drilling: N/A

Well: VW12R

DESCRIPTION					
0					Grass
					Clayey SAND: fine- to medium-grained, brown, damp, subangular to subrounded, poorly graded (25,10,65,0)
				SC	Dark brown @ 2.5 feet bgs
					Moist @ 3 feet bgs
				SC	Clayey SAND: fine- to medium-grained, moist, dark brown, subangular to subrounded, poorly graded (40,0,60,0)
5	2.4				Total Depth 5 feet bgs







CLIENT ExxonMobil	SITE NUMBER 7-4121	LOCATION 10605 Foothill Blvd Oakland, California
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DRILLING AND SAMPLING METHODS: Borehole cleared to 6 feet bgs using a hand auger. Sampled with slide hammer using 6-inch-long stainless-steel liners.

LOG OF SOIL BORING: **VW1**

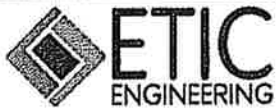
COORDINATES: N2097703.7 : E6084683.6  
 ELEVATION TOP OF CASING:  
 CASING BELOW SURFACE: -81.77

WATER LEVEL				START TIME 1130	FINISH TIME 1245
TIME				DATE 1/22/07	DATE 1/22/07
DATE					
REFERENCE					

DRILLING COMPANY: Cascade  
 LICENSE NUMBER: C57-717510

INCHES		BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER								Top soil/Grass	
									DESCRIPTION BY: E. Appel	DETAILS
				0					SILTY CLAY - dark olive brown (2.5Y 3/3). soft, low plasticity, slightly moist.	Single bolt, water tight Morrison well box
				1						Neat cement grout from 0.5 to 4 feet bgs
				2						0.125-inch I.D. stainless steel tubing from ground surface to 5.25 feet
				3				CL		
				4					- becoming yellowish-brown (10YR 5/6), moist	Bentonite chips from 4 to 5 feet bgs.
				5						#2/12 sand from 5 to 6 feet bgs.
6	4			6					Boring terminated at 6 feet bgs	0.375-inch I.D. 0.010-inch slot stainless steel screen from 5.25 to 5.75 feet bgs
6	4									
				7						
				8						
				9						
				10						
				11						
				12						

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 4/3/07



CLIENT ExxonMobil	SITE NUMBER 7-4121	LOCATION 10605 Foothill Blvd Oakland, California
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DRILLING AND SAMPLING METHODS: Borehole cleared to 6 feet bgs using a hand auger. Sampled with slide hammer using 6-inch-long stainless-steel liners.

LOG OF SOIL BORING: **VW2**

COORDINATES: N2097691.3 : E6084692  
 ELEVATION TOP OF CASING:  
 CASING BELOW SURFACE: -81.98

WATER LEVEL				START TIME 1155	FINISH TIME 1300
TIME				DATE 1/22/07	DATE 1/22/07
DATE				REFERENCE	

DRILLING COMPANY: Cascade  
 LICENSE NUMBER: C57-717510

INCHES		BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER									Top soil/Grass	
DESCRIPTION BY: E. Appel										DETAILS	
				0							
				1						<p><b>SILTY CLAY</b> - dark olive brown (2.5Y 3/3), soft, low plasticity, slightly moist.</p>	
				2							
				3					CL		
				4						- becoming yellowish-brown (10YR 5/6), moist	
6	4			5						Bentonite chips from 4 to 5 feet bgs	
6	4			6						<p>#2/12 sand from 5 to 6 feet bgs.          0.375-inch I.D. 0.010-inch slot stainless steel screen from 5.25 to 5.75 feet bgs</p>	
				7						Boring terminated at 6 feet bgs	
				8							
				9							
				10							
				11							
				12							

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 4/3/07



CLIENT ExxonMobil	SITE NUMBER 7-4121	LOCATION 10605 Foothill Blvd Oakland, California
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DRILLING AND SAMPLING METHODS: Borehole cleared to 6 feet bgs using a hand auger. Sampled with slide hammer using 6-inch-long stainless-steel liners.

LOG OF SOIL BORING: **VW3**

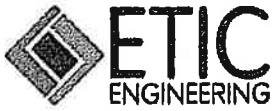
COORDINATES: N2097670.8 :E6084704.6  
 ELEVATION TOP OF CASING:  
 CASING BELOW SURFACE: -82.64

WATER LEVEL				START TIME 1430	FINISH TIME 1510
TIME				DATE 1/22/07	DATE 1/22/07
DATE					
REFERENCE					

DRILLING COMPANY: Cascade  
 LICENSE NUMBER: C57-717510

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING						Top soil/Grass	
				0					DESCRIPTION BY: E. Appel	DETAILS
				1					<p><b>SILTY CLAY</b> - dark olive brown (2.5Y 3/3), soft, low plasticity, slightly moist.</p> <p>- becoming yellowish-brown (10YR 5/6), moist</p> <p>Boring terminated at 6 feet bgs.</p>	<p>Single bolt, water tight Morrison well box</p> <p>Neat cement grout from 0.5 to 4 feet bgs</p> <p>0.125-inch I.D. stainless steel tubing from ground surface to 5.25 feet.</p> <p>Bentonite chips from 4 to 5 feet bgs.</p> <p>#2/12 sand from 5 to 6 feet bgs.</p> <p>0.375-inch I.D. 0.010-inch slot stainless steel screen from 5.25 to 5.75 feet bgs.</p>
				2						
				3			CL			
				4						
				5						
6	4			6						
6	4			6						
				7						
				8						
				9						
				10						
				11						
				12						

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 4/3/07



CLIENT ExxonMobil	SITE NUMBER 7-4121	LOCATION 10605 Foothill Blvd Oakland, California
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DRILLING AND SAMPLING METHODS: Borehole cleared to 6 feet bgs using a hand auger. Sampled with slide hammer using 6-inch-long stainless-steel liners.

LOG OF SOIL BORING: **VW4**

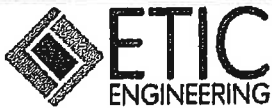
COORDINATES: N2097648 1 :E6084721.3  
 ELEVATION TOP OF CASING:  
 CASING BELOW SURFACE: -83.13

WATER LEVEL				START TIME	FINISH TIME
TIME				1445	1530
DATE				1/22/07	1/22/07
REFERENCE					

DRILLING COMPANY: Cascade  
 LICENSE NUMBER: C57-717510

INCHES		BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER									Top soil/Grass	
DESCRIPTION BY: E. Appel										DETAILS	
				0						SILTY CLAY - dark olive brown (2.5Y 3/3), soft, low plasticity, slightly moist	
				1						Single bolt, water tight Morrison well box	
				2					CL	Neat cement grout from 0.5 to 4 feet bgs	
				3						0.125-inch I.D. stainless steel tubing from ground surface to 5.25 feet	
				4						Bentonite chips from 4 to 5 feet bgs.	
				5					SP-SC	#2/12 sand from 5 to 6 feet bgs.	
6	4			6						0.375-inch I.D. 0.010-inch slot stainless steel screen from 5.25 to 5.75 feet bgs.	
6	4			6						Boring terminated at 6 feet bgs	
				7							
				8							
				9							
				10							
				11							
				12							

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 4/3/07



CLIENT ExxonMobil	SITE NUMBER 7-4121	LOCATION 10605 Foothill Blvd Oakland, California
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DRILLING AND SAMPLING METHODS: Borehole cleared to 6 feet bgs using a hand auger hammer using 6-inch-long stainless-steel liners. Sampled with slide

LOG OF SOIL BORING: **VW5**

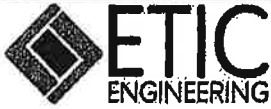
COORDINATES: N2097706 7 :E6084744.8  
ELEVATION TOP OF CASING:  
CASING BELOW SURFACE: -84.47

DRILLING COMPANY: Cascade  
LICENSE NUMBER: C57-717510

WATER LEVEL				START TIME 1050	FINISH TIME 1230
TIME				DATE 1/22/07	DATE 1/22/07
DATE					
REFERENCE					

INCHES		BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER									Top soil/Grass	
										DESCRIPTION BY:	DETAILS
										E. Appel	
				0						SILTY CLAY - dark olive brown (2.5Y 3/3), soft, low plasticity, slightly moist.	Single bolt, water tight Morrison well box
				1							Neat cement grout from 0.5 to 4 feet bgs
				2							0.125-inch I.D. stainless steel tubing from ground surface to 5.25 feet
				3					CL		
				4						- becoming yellowish-brown (10YR 5/6). moist	Bentonite chips from 4 to 5 feet bgs.
				5							#2/12 sand from 5 to 6 feet bgs.
6	4			6						Boring terminated at 6 feet bgs	0.375-inch I.D. 0.010-inch slot stainless steel screen from 5.25 to 5.75 feet bgs
6	4										
				7							
				8							
				9							
				10							
				11							
				12							

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 4/3/07



CLIENT ExxonMobil	SITE NUMBER 74121	LOCATION 10605 Foothill Blvd Oakland, California
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DRILLING AND SAMPLING METHODS: Borehole cleared to 6 feet bgs using a hand auger. Sampled with a slide hammer using 6-inch long stainless-steel liners.

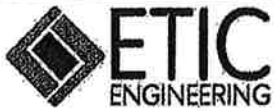
LOG OF SOIL BORING: **VW6**  
 COORDINATES: N2097721.6 : E6084709.7  
 ELEVATION TOP OF CASING: 83.44  
 CASING BELOW SURFACE:

WATER LEVEL				START TIME 1045	FINISH TIME 1505
TIME				DATE 3/23/09	DATE 3/23/09
DATE					
REFERENCE					

DRILLING COMPANY: Vironex  
 LICENSE NUMBER: C57-705927

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING							Top Soil/Grass	
60			1.5	0						DESCRIPTION BY: M. Garcia	DETAILS 
				1						SILTY CLAY - very dark brown (10YR 2/2), soft, low plasticity, moist.	
				2						- moist to wet.	
			0.3	3					CL	- very stiff.	
	12			4							
				5						Boring terminated at 6 feet bgs.	
				6							
				7							
				8							
				9							
				10							
				11							
				12							
				13							
				14							
				15							
				16							
				17							
				18							
				19							
				20							

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 5/14/09



CLIENT ExxonMobil	SITE NUMBER 74121	LOCATION 10605 Foothill Blvd Oakland, California
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DRILLING AND SAMPLING METHODS: Borehole cleared to 6 feet bgs using a hand auger. Sampled with a slide hammer using 6-inch long stainless-steel liners.

LOG OF SOIL BORING: **VW7**

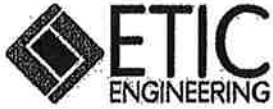
COORDINATES: N2097715.7 :E6084729.7  
 ELEVATION TOP OF CASING: 83.96  
 CASING BELOW SURFACE:

WATER LEVEL				START TIME 1000	FINISH TIME 1445
TIME				DATE 3/23/09	DATE 3/23/09
DATE					
REFERENCE					

DRILLING COMPANY: Vironex  
 LICENSE NUMBER: C57-705927

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING							Top Soil/Grass	
DESCRIPTION BY: M. Garcia										DETAILS	
60			0.9	0							
			0.5	1							
				2				CL			
			0.9	3							
				4				CLAY - very dark brown (10YR 2/2), hard, low plasticity, dry to moist.			
	12			5				CL			
				6					Boring terminated at 6 feet bgs.		
				7							
				8							
				9							
				10							
				11							
				12							
				13							
				14							
				15							
				16							
				17							
				18							
				19							
				20							

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 5/14/09



CLIENT ExxonMobil	SITE NUMBER 74121	LOCATION 10605 Foothill Blvd Oakland, California
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LOG OF SOIL BORING: **VW8**

DRILLING AND SAMPLING METHODS: Borehole cleared to 6 feet bgs using a hand auger. Sampled with a slide hammer using 8-inch long stainless-steel liners.

COORDINATES: N2097687.2 : E6084729.7  
 ELEVATION TOP OF CASING: 83.70  
 CASING BELOW SURFACE:

WATER LEVEL				START TIME 0955	FINISH TIME 1424
TIME				DATE 3/23/09	DATE 3/23/09
DATE					
REFERENCE					

DRILLING COMPANY: Vironex  
 LICENSE NUMBER: C57-705927

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING						Top Soil/Grass	
60			2.7	0					DESCRIPTION BY: M. Garcia	DETAILS 
				1					<b>SILTY CLAY WITH TRACE SAND</b> - very dark brown (10YR 2/2), firm to stiff, low plasticity, fine grained sand, moist. - mottled with dark yellowish brown (10YR 4/6). - with some small roots and trace subangular gravel 0.5 inches in diameter.	
			2.2	2				CL	<b>CLAY WITH SOME SAND</b> - dark brown (10YR 3/3) mottled with dark yellowish brown (10YR 4/6), hard, low plasticity, fine grained sand, moist.	
	12			3					Boring terminated at 6 feet bgs.	
				4						
				5						
				6						
				7						
				8						
				9						
				10						
				11						
				12						
				13						
				14						
				15						
				16						
				17						
				18						
				19						
				20						

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 5/14/09





CLIENT ExxonMobil	SITE NUMBER 74121	LOCATION 10605 Foothill Blvd Oakland, California
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LOG OF SOIL BORING: **VW9**

DRILLING AND SAMPLING METHODS: Borehole cleared to 6 feet bgs using a hand auger. Sampled with a slide hammer using 6-inch long stainless-steel liners.

COORDINATES: N2097692.4 : E6084705.7  
 ELEVATION TOP OF CASING: 82.72  
 CASING BELOW SURFACE:

WATER LEVEL				START TIME 1045	FINISH TIME 1600
TIME				DATE 3/23/09	DATE 3/23/09
DATE					
REFERENCE					

DRILLING COMPANY: Vironex  
 LICENSE NUMBER: C57-705927

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING						Top Soil/Grass	
60			1.0	0					DESCRIPTION BY: M. Garcia	<p>DETAILS</p>
				1			ML	CLAYEY SILT - very dark brown (10YR 2/2), firm, dry to moist.		
				2						
			0.2	3			CL	CLAY - very dark brown (10YR 2/2), hard, low plasticity, dry.		
	12			4						
				5						
				6				Boring terminated at 6 feet bgs.		
				7						
				8						
				9						
				10						
				11						
				12						
				13						
				14						
				15						
				16						
				17						
				18						
				19						
				20						

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 5/14/09



CLIENT ExxonMobil	SITE NUMBER 74121	LOCATION 10605 Foothill Blvd Oakland, California
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LOG OF SOIL BORING: **VW10**

**DRILLING AND SAMPLING METHODS** Borehole cleared to 6 feet bgs using a hand auger. Sampled with a slide hammer using 6-inch long stainless-steel liners.

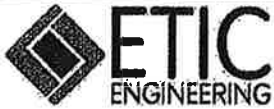
COORDINATES: N2097745.6 ; E6084725.4  
 ELEVATION TOP OF CASING: 84.05  
 CASING BELOW SURFACE:

WATER LEVEL				START TIME 1150	FINISH TIME 1535
TIME				DATE 3/23/09	DATE 3/23/09
DATE					
REFERENCE					

DRILLING COMPANY: Vironex  
 LICENSE NUMBER: C57-705927

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS		
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING						Top Soil/Wood Chips		
60			0.7	0					DESCRIPTION BY: M. Garcia	DETAILS	
			0.6	1					<p><b>SILTY CLAY</b> - black (10YR 2/1) mottled with dark yellowish brown (10YR 4/6), very stiff, low plasticity, moist.</p> <p>- color becomes dark yellowish brown (10YR 4/6), moist to wet.</p>	<ul style="list-style-type: none"> <li>Single bolt, water tight Morrison well box</li> <li>Neat cement grout from 0.5 to 4 feet bgs</li> <li>0.25-inch stainless steel tubing from ground surface to 5.25 feet.</li> <li>Bentonite chips from 4 to 5 feet bgs.</li> <li>#2/12 sand from 5 to 6 feet bgs.</li> <li>0.4-inch 0.0057-inch pore stainless steel screen from 5.25 to 5.75 feet bgs.</li> </ul>	
	12			2							
				3							
				4							
				5							
				6							
				7							
				8							
				9							
				10							
				11							
				12							
				13							
				14							
				15							
				16							
				17							
				18							
				19							
				20							

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 5/14/09



CLIENT ExxonMobil	SITE NUMBER 74121	LOCATION 10605 Foothill Blvd Oakland, California
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DRILLING AND SAMPLING METHODS: Borehole cleared to 6 feet bgs using a hand auger. Sampled with a slide hammer using 6-inch long stainless-steel liners.

LOG OF SOIL BORING: **VW11**

COORDINATES: N2097685.5 :E6084794.6  
 ELEVATION TOP OF CASING: 85.51  
 CASING BELOW SURFACE:

WATER LEVEL				START TIME 0843	FINISH TIME 1310
TIME				DATE 3/23/09	DATE 3/23/09
DATE					
REFERENCE					

DRILLING COMPANY: Vironex  
 LICENSE NUMBER: C57-705927

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING						Top Soil/Grass	
60				0					DESCRIPTION BY: M. Garcia	DETAILS 
				1			ML	CLAYEY SILT - dark brown (10YR 3/6), soft, low plasticity, moist.		
				2						
				3				CLAY - very dark brown (10YR 2/2) hard, low plasticity, dry to moist.		
				4			CL			
	12		4.4	5						
				6				Boring terminated at 6 feet bgs.		
				7						
				8						
				9						
				10						
				11						
				12						
				13						
				14						
				15						
				16						
				17						
				18						
				19						
				20						

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 5/14/09



CLIENT ExxonMobil	SITE NUMBER 74121	LOCATION 10605 Foothill Blvd Oakland, California
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LOG OF SOIL BORING: **VW12**

**DRILLING AND SAMPLING METHODS** Borehole cleared to 6 feet bgs using a hand auger. Sampled with a slide hammer using 6-inch long stainless-steel liners.

COORDINATES: N2097662.3 :E6084713.8  
 ELEVATION TOP OF CASING: 83.04  
 CASING BELOW SURFACE:

WATER LEVEL				START TIME 0925	FINISH TIME 1355
TIME				DATE 3/23/09	DATE 3/23/09
DATE					
REFERENCE					

DRILLING COMPANY: Vironex  
 LICENSE NUMBER: C57-705927

INCHES				DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	SURFACE CONDITIONS	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING						Top Soil/Grass	
60			4.4	0					DESCRIPTION BY: M. Garcia	<b>DETAILS</b> 
				1					<b>SILTY CLAY</b> - black (10YR 2/1) soft to firm, low plasticity, moist.	
				2			CL			
			0.6	3						
			0.1	4					<b>CLAY</b> - very dark brown (10YR 2/2) very stiff, low plasticity, moist.	
	12			5			CL			
				6					Boring terminated at 6 feet bgs.	
				7						
				8						
				9						
				10						
				11						
				12						
				13						
				14						
				15						
				16						
				17						
				18						
				19						
				20						

LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 5/14/09

**TABLE 1**  
**WELL CONSTRUCTION DETAILS**  
Former Exxon Service Station 74121  
10605 Foothill Boulevard  
Oakland, California  
(Page 1 of 1)

Well ID	Well Installation Date	Well Destruction Date	TOC Elevation (feet)	Well Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material
MW1	01/23/07	10/14/12	82.47	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
MW2	01/23/07	10/14/12	84.40	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
MW3	01/24/07	10/14/12	83.25	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
MW5	01/23/07	10/14/12	82.65	PVC	26.5	25	8	2	10 - 25	0.010	8 - 25	#2/12 Sand
VW1	01/22/07	10/14/12	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW2	01/22/07	10/14/12	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW3	01/22/07	10/14/12	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW3R	12/19/11	10/14/12	---	Stainless Steel	5	5	3.25	0.25	4.50 - 4.75	0.010	4 - 5	#2 Sand
VW4	01/22/07	10/14/12	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW4R	12/19/11	10/14/12	---	Stainless Steel	5	5	3.25	0.25	4.50 - 4.75	0.010	4 - 5	#2 Sand
VW5	01/22/07	10/14/12	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW6	03/23/09	10/14/12	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW7	03/23/09	Feb-10	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW8	03/23/09	Feb-10	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW9	03/23/09	10/14/12	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW10	03/23/09	10/14/12	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW11	03/23/09	10/14/12	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW11R	12/19/11	10/14/12	---	Stainless Steel	5	5	3.25	0.25	4.50 - 4.75	0.010	4 - 5	#2 Sand
VW12	03/23/09	10/14/12	---	Stainless Steel	6	6	6	0.25	5.25 - 5.75	0.0057	5 - 6	#2/12 Sand
VW12R	12/19/11	10/14/12	---	Stainless Steel	5	5	3.25	0.25	4.50 - 4.75	0.010	4 - 5	#2 Sand

Notes:  
TOC = Top of well casing elevation. Elevation based on City of San Jose datum.  
PVC = Polyvinyl chloride.  
--- = Not applicable.

## **APPENDIX E**

### **DISPOSAL DOCUMENTATION**

# Manifest

## SOIL SAFE OF CA - TPST Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment: 11, 8, 12 Responsible for Payment: \_\_\_\_\_ Transport Truck #: 393 1476 Facility #: A07 Approval Number: 38814 Load #: 1906

Generator's Name and Billing Address: **EXXONMOBIL OIL CORP.**  
ATTN: EMES ADMINISTRATOR  
2555 W. 100TH ST. #1108  
TORRANCE, CA 90504

Generator's Phone #: 310-212-2938  
Person to Contact: \_\_\_\_\_  
FAX#: \_\_\_\_\_ Customer Account Number: \_\_\_\_\_

Consultant's Name and Billing Address: \_\_\_\_\_  
Consultant's Phone #: \_\_\_\_\_  
Person to Contact: \_\_\_\_\_  
FAX#: \_\_\_\_\_ Customer Account Number: \_\_\_\_\_

Generation Site (Transport from): (name & address)  
**EXXONMOBIL 74121**  
10805 FOOTHILL BOULEVARD  
OAKLAND, CA

Site Phone #: \_\_\_\_\_  
Person to Contact: \_\_\_\_\_  
FAX#: \_\_\_\_\_

Designated Facility (Transport to): (name & address)  
**SOIL SAFE**  
12328 HILISIOUS AVENUE  
ADELANTO, CA 92301

Facility Phone #: (800) 882-8001  
Person to Contact: DELLENA JEFFREY  
FAX#: (760) 248-8004

Transporter Name and Mailing Address:  
**BELSHIRE**  
25871 TOWNE CENTRE DRIVE  
FOOTHILL RANCH, CA 92610  
RES: 211589

Transporter's Phone #: 949-460-6200 CAR000183913  
Person to Contact: LARRY MOOTHART 450847  
FAX#: \_\_\_\_\_ Customer Account Number: \_\_\_\_\_  
949-460-6210

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input checked="" type="checkbox"/>	<u>2</u>	<u>Soil</u>	<u>38400</u>	<u>37600</u>	<u>1000</u>
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>					<u>150</u>

List any exception to items listed above: \_\_\_\_\_ Scale Ticket # 104787

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way. On behalf of ExxonMobil

Print or Type Name: Generator  Consultant   
Rebekah A. Westrup Signature and date: [Signature] Month: 10 Day: 22 Year: 12

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: [Signature] Signature and date: [Signature] Month: 10 Day: 23 Year: 12

Discrepancies: \_\_\_\_\_

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: D. JEFFREY/J. PROVANSAL Signature and date: [Signature]

Generator and/or Consultant

Transporter

Recycling Facility

Please print or type.