

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

November 17, 2015

Western Dealer Holding Company LLC  
DBA Platinum Energy  
30343 Canwood St., Ste 200  
Agoura Hills, CA 91301-4329  
Attn.: Shane Nolan  
(Sent via electronic mail to:  
[snolan@platinum-energy.net](mailto:snolan@platinum-energy.net))

Phillips 66 Company/  
ConocoPhillips  
76 Broadway  
Sacramento, CA 95818  
Attn.: Mr. Ed Ralston  
(Sent via electronic mail to  
[Ed.C.Ralston@p66.com](mailto:Ed.C.Ralston@p66.com))

Sam and Wendy Ng  
3220 Lakeshore Avenue  
Oakland, CA 94610

Charanjeer Kaur and Kulwant Minhas  
PO Box 3545  
Yuba City, CA 95992-3545

Union Oil Company of California  
c/o UNOCAL 76 Prop Tax  
PO Box 7600  
Los Angeles, CA 90051-0600

Subject: Case Closure for Fuel Leak Case No. RO0000229 and Geotracker Global ID T0600101463, UNOCAL #5325, 3220 Lakeshore Avenue, Oakland CA 94610

Dear Responsible Parties:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25296.10[g]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed. This case closure letter and the case closure summary can also be viewed on the State Water Resources Control Board's Geotracker website (<http://geotracker.waterboards.ca.gov>) and the Alameda County Environmental Health website (<http://www.acgov.org/aceh/index.htm>).

Due to residual contamination, the site is closed with Site Management Requirements that limit future land use to the current commercial land use. Site Management Requirements are further described on Page 2 of the attached Case Closure Summary.

If you have any questions, please call Keith Nowell at (510) 567-6764. Thank you.

Sincerely,

A handwritten signature in blue ink that reads "Dilan Roe".

Dilan Roe, P.E.  
LOP and SCP Program Manager

Enclosures: 1. Remedial Action Completion Certification  
2. Case Closure Summary

Cc w/enc.: Susan Hugo, Alameda County Environmental Health, 1131 Harbor Bay Parkway, Alameda, CA 94502 (*Sent via electronic mail to: [susan.hugo@acgov.org](mailto:susan.hugo@acgov.org)*)

Cherie McCaulou, Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay St, Ste 1400, Oakland, CA 94612 (*Sent via electronic mail to: [cmccaulou@waterboards.co.gov](mailto:cmccaulou@waterboards.co.gov)*)

Ken Minn, East Bay Municipal Utility District, P.O. Box 24055, Oakland, CA 94623  
(*Sent via electronic mail to: [kminn@ebmud.com](mailto:kminn@ebmud.com)*)

Chandra Johannesson, East Bay Municipal Utility District, P.O. Box 24055, MS 702, Oakland, CA 94623 (*Sent via E-mail to: [cjohanne@ebmud.com](mailto:cjohanne@ebmud.com)*)

Mark J. Arniola, City of Oakland Public Works Environmental Services, 250 Frank H. Ogawa Plaza, Suite 5301, Oakland, CA 94612 (*Sent via E-mail to: [marniola@oaklandnet.com](mailto:marniola@oaklandnet.com)*)

Dennis Dettloff, Antea Group, 11050 White Rock Rd., Suite 110 Rancho Cordova, CA 95670  
(*Sent via E-mail to: [ddettloff@anteagroup.com](mailto:ddettloff@anteagroup.com)*)

Keith Nowell (*Sent via E-mail to: [keith.nowell@acgov.org](mailto:keith.nowell@acgov.org)*)  
e-File, GeoTracker

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY

ALEX BRISCOE, Agency Director



DEPARTMENT OF ENVIRONMENTAL HEALTH  
OFFICE OF THE DIRECTOR  
1131 HARBOR BAY PARKWAY  
ALAMEDA, CA 94502  
(510) 567-6777  
FAX (510) 337-9135

REMEDIAL ACTION COMPLETION CERTIFICATION

November 17, 2015

Western Dealer Holding Company LLC  
DBA Platinum Energy  
30343 Canwood St., Ste 200  
Agoura Hills, CA 91301-4329  
Attn.: Shane Nolan  
(Sent via electronic mail to:  
[snolan@platinum-energy.net](mailto:snolan@platinum-energy.net))

Phillips 66 Company/  
ConocoPhillips  
76 Broadway  
Sacramento, CA 95818  
Attn.: Mr. Ed Ralston  
(Sent via electronic mail to  
[Ed.C.Ralston@p66.com](mailto:Ed.C.Ralston@p66.com))

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Yuba City, CA 95992-3545

Union Oil Company of California  
c/o UNOCAL 76 Prop Tax  
PO Box 7600  
Los Angeles, CA 90051-0600

Subject: Case Closure for Fuel Leak Case No. RO0000229 and Geotracker Global ID T0600101463, UNOCAL #5325, 3220 Lakeshore Avenue, Oakland CA 94610

Dear Responsible Parties:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

Please be aware that claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or
- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

This notice is issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

A handwritten signature in black ink that reads "Ronald Browder". The signature is written in a cursive, slightly slanted style.

Ronald Browder  
Acting Director

# UST Case Closure Summary Form

**Agency Information**

Date: November 16, 2015

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567 – 6764
Staff Person: Keith Nowell	Title: Hazardous Materials Specialist

**Case Information**

Facility Name: Unocal #5325		
Facility Address: 3220 Lakeshore Avenue, Oakland, CA 94610		
RB LUSTIS Case No: 01-1588	Local Case No.: STID #1059	LOP Case No.: RO0000229
URF Filing Date: 6/08/1990	GeoTracker Global ID: T0600101463	
APN: 23-424-18-1	Current Land Use: Active fueling station	
Responsible Party(s):	Address:	Phone:
Phillips 66 Company	76 Broadway Sacramento, CA 95818	916 / 558 - 7633
Western Dealer Holding Co. DBA Platinum Energy	30343 Canwood St., Suite 200 Agoura Hills, CA 91301	818 / 206 - 5704
Union Oil Company of California c/o UNOCAL Prop Tax	PO Box 7600 Los Angeles, CA 90051-0600	
ConocoPhillips	76 Broadway Sacramento, CA 95818	916 / 558 - 7666
Sam and Wendy Ng	3220 Lakeshore Avenue Oakland, CA 94610	510 / 836 - 9888
Charanjeer Kaur and Kulwant Minhas	PO Box 3545 Yuba City, CA 95992-3545	

**Tank Information**

Tank No.	Size (gal)	Contents	Closed in-Place/ Removed/Active	Date
----	10,000	Gasoline	Removed	June 1990
----	10,000	Gasoline	Removed	June 1990
----	120	Waste Oil	Removed	June 1990
Piping			Removed	June 1990
----	550	Waste Oil	Removed	November 15, 1996
Piping			Removed	November 15, 1996
----	12,000	Gasoline	Active	
----	12,000	Gasoline	Active	

**Conceptual Site Model (Attachment 1, 2 pages)**

# UST Case Closure Summary Form

**LTCP Checklist (Attachment 2, 2 pages)**

**LTCP Groundwater Specific Criteria (Attachment 3, 1 page)**

**LTCP Vapor Specific Criteria (Attachment 4, 1 page)**

**LTCP Direct Contact and Outdoor Air Exposure Criteria (Attachment 5, 1 page)**

**Optional Site Map(s) (Attachment 6, 13 pages)**

**Analytical Data (Attachment 7, 43 pages)**

**Additional Information:**

Site Management Requirements: This fuel leak case has been evaluated for closure consistent with the State Water Resource Control Board Low-Threat Underground Storage Tank Closure Policy (LTCP). Under the current land use as an active fueling station, the site is not required to meet media-specific criteria for vapor intrusion to indoor air. Therefore, case closure is granted for the current commercial land use as an active fueling station.

If a change in land use to any residential, commercial other than as a commercial fueling station, or conservative land use, or if any redevelopment occurs, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the site relative to the proposed redevelopment.

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

**RWQCB Notification**

Notification Date: May 28, 2015

RWQCB Staff Name: Cherie McCaulou	Title: Engineering Geologist
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**Local Agency Representative**

Prepared by: Keith Nowell	Title: Hazardous Materials Specialist
Signature: <i>Keith Nowell</i>	Date: <i>11/17/2015</i>
Approved by: Dilan Roe	Title: LOP and SCP Program Manager
Signature: <i>Dilan Roe</i>	Date: <i>11/17/2015</i>

This Case Closure Summary along with the Case Closure Transmittal letter and the Remedial Action Completion Certification provides documentation of the case closure. This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions. The Conceptual Site Model may not contain all available data. Additional information on the

## UST Case Closure Summary Form

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case can be viewed in the online case file. The entire case file can be viewed over the Internet on the Alameda County Environmental Health (ACEH) website (<http://www.acgov.org/aceh/lop/ust.htm>) or the State of California Water Resources Control Board GeoTracker website (<http://geotracker.waterboards.ca.gov>). Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the ACEH website.

# ATTACHMENT 1



CSM Report

[GEOTRACKER HOME](#) | [MANAGE PROJECTS](#) | [REPORTS](#) | [SEARCH](#) | [LOGOUT](#)

**UNOCAL #5325 (T0600101463) - [MAP THIS SITE](#)**

**COMPLETED - CASE CLOSED**

3220 LAKESHORE AVE.  
**OAKLAND , CA 94610**  
 ALAMEDA COUNTY  
[ACTIVITIES REPORT](#)  
[PUBLIC WEBPAGE](#)  
[VIEW PRINTABLE CASE SUMMARY FOR THIS SITE](#)

**CLEANUP OVERSIGHT AGENCIES**  
 ALAMEDA COUNTY LOP (**LEAD**) - CASE #: RO0000229  
**CASEWORKER:** [KEITH NOWELL](#) - **SUPERVISOR:** DILAN ROE  
 SAN FRANCISCO BAY RWQCB (REGION 2) - CASE #: 01-1588  
**CASEWORKER:** [Cherie McCaulou](#) - **SUPERVISOR:** Cheryl L. Prowell  
 CUF Claim #: 6854 CUF Priority Assigned: D CUF Amount Paid: \$0  
 CR Site ID #: NOT SPECIFIED

THIS PROJECT WAS LAST MODIFIED BY [KEITH NOWELL](#) ON 11/17/2015 2:53:23 PM - [HISTORY](#)

THIS SITE HAS SUBMITTALS. CLICK [HERE](#) TO OPEN A NEW WINDOW WITH THE SUBMITTAL APPROVAL PAGE FOR THIS SITE.

**CSM REPORT - [VIEW PUBLIC NOTICING VERSION OF THIS REPORT](#)**

**UST CLEANUP FUND CLAIM INFORMATION (DATA PULLED FROM SCUFIS)**

CLAIM NO	PRIORITY	CLAIMANT	SITE ADDRESS	AMT REIMB TO DATE	AGE OF LOC	IMPACTED WELLS?	FIVE YEAR REVIEW INFORMATION				
							REVIEW NUM	REVIEWER	FUND RECOMMENDATION	TO OVERSIGHT DATE	TO CLAIMANT DATE
6854	D	UNION OIL COMPANY OF CALIFORNIA CHVPPK/K2232, SAN RAMON CA 94583-2324	3220 LAKESHORE AVE OAKLAND, CA 94610				1	mark owens	Recommended Case Closure	6/24/2014	

**PROJECT INFORMATION (DATA PULLED FROM GEOTRACKER) - [MAP THIS SITE](#)**

SITE NAME / ADDRESS	STATUS	STATUS DATE	RELEASE REPORT DATE	AGE OF CASE	CLEANUP OVERSIGHT AGENCIES
UNOCAL #5325 (Global ID: T0600101463) 3220 LAKESHORE AVE. OAKLAND, CA 94610	Completed - Case Closed	11/17/2015	6/8/1990	25	ALAMEDA COUNTY LOP ( <b>LEAD</b> ) - CASE #: RO0000229 <b>CASEWORKER:</b> <a href="#">KEITH NOWELL</a> - <b>SUPERVISOR:</b> DILAN ROE SAN FRANCISCO BAY RWQCB (REGION 2) - CASE #: 01-1588 <b>CASEWORKER:</b> <a href="#">Cherie McCaulou</a> - <b>SUPERVISOR:</b> Cheryl L. Prowell

**STAFF NOTES (INTERNAL)**

Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the Alameda County Environmental Health website at <https://ehgis.acgov.org/dehpublic/dehpublic.jsp>.

**SITE HISTORY**

The site is currently an active fueling station with three dispenser islands. Four tanks were removed in October 1985. Stained odiferous soil was noted. Free product was observed in well S-1. In May 1990, three soil borings were advanced adjacent to the UST complex. Soil samples indicated that TPHg was present in concentrations up to 7,500 mg/kg.

In June 1990 two 10,000-gallon gasoline USTs, one waste-oil UST (variously reported having a capacity of 120-, 280-, and 550 gallons), were removed and replaced by 2 12,000-gal fuel and 1 550-gal waste oil tank. Piping and dispensers were also removed and replaced at the site. Petroleum hydrocarbons were detected in soil. Approximately 250 cu yds soil excavated and removed from site.

Groundwater wells were subsequently installed on-site and petroleum hydrocarbons were detected in groundwater. Free product was observed in wells U-1 and U-2 in the late 1990s, and was last observed in March 1998. Free product skimmers operated in wells U-1 and U-2 in 1996 and 1997. The 550-gal waste oil tank removed and product piping was removed and replaced in November 1996. An additional 278 tons of soil was excavated and off-hauled at the time of the waste oil tank removal.

A tank cavity well was installed on 6/24/1997 and one on 9/28/2000. A minimum of 36,700 gallons of contaminated groundwater was extracted via these wells and transported for off-site disposal. A 6-day DPE event was performed in April 1999. Ozone sparging pilot test was performed June through August 2006 with post test monitoring. Groundwater monitoring has been performed through May 2015.

**RESPONSIBLE PARTIES**

NAME	ORGANIZATION	ADDRESS	CITY	EMAIL
CHARANJEER KAUR	Private party property owner	PO BOX 3545	YUBA CITY	
ED RALSTON	Phillips 66 Company	76 BROADWAY	SACRAMENTO	<a href="mailto:ed.c.ralston@p66.com">ed.c.ralston@p66.com</a>
KULWANT MINHAS	Private party property owner	PO BOX 3545	YUBA CITY	
NA	UNION OIL COMPANY OF CALIFORNIA c/o UNOCAL 76 PROP TAX	PO BOX 7600	LOS ANGELES	
SAM S. NG	Lakeshore 76	3220 LAKESHORE AVENUE	OAKLAND	
SHANE NOLAN	WESTERN DEALER HOLDING CO LLC	30343 CANWOOD STREET SUITE 200	AGOURA HILLS	<a href="mailto:snolan@platinum-energy.net">snolan@platinum-energy.net</a>
TERRY GRAYSON	CONOCOPHILLIPS	76 BROADWAY	SACRAMENTO	
WENDY W. NG	Lakeshore 76	3220 LAKESHORE AVE.	OAKLAND	

**CLEANUP ACTION INFO**

ACTION TYPE	BEGIN DATE	END DATE	PHASE	CONTAMINANT MASS REMOVED	DESCRIPTION
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IN SITU PHYSICAL/CHEMICAL TREATMENT (OTHER THAN SVE)	6/14/2006	9/1/2006				Ozone air sparge
DUAL PHASE EXTRACTION	4/5/1999	4/10/1999	Water, Soil Vapor			A total of 26.75 gallons of TPH removed in conjunction with the treatment of 13,580 gallons of groundwater. Approximately 167 pounds of TPH recovered from the vapor phase.
PUMP & TREAT (P&T) GROUNDWATER	6/24/1997	9/30/2000	Water			Between June 1997 and October 2000, approximately 36,659 gallons of groundwater pumped from tank pit for off-site disposal
EXCAVATION	11/19/1996	11/27/1996	Soil			167 tons soil transported for off-site disposal
EXCAVATION	7/11/1990	7/12/1990	Soil	Tons		700 tons soil excavated for off-site disposal- Quantity approximate
EXCAVATION	10/24/1985	10/24/1985	Soil			Soil disposal referenced but does not state quantity

RISK INFORMATION [VIEW LTCP CHECKLIST](#) [VIEW PATH TO CLOSURE PLAN](#) [VIEW CASE REVIEWS](#)

CONTAMINANTS OF CONCERN	CURRENT LAND USE	BENEFICIAL USE	DISCHARGE SOURCE	DATE REPORTED	STOP METHOD	NEARBY / IMPACTED WELLS
MTBE / TBA / Other Fuel Oxygenates, Gasoline	Commercial	GW - Municipal and Domestic Supply		6/8/1990	Close and Replace Tank	0
FREE PRODUCT	OTHER CONSTITUENTS	NAME OF WATER SYSTEM	LAST REGULATORY ACTIVITY	LAST ESI UPLOAD	EXPECTED CLOSURE DATE	MOST RECENT CLOSURE REQUEST
NO	NO	East Bay MUD	10/19/2015	10/19/2015	5/5/2015	11/14/2013

CDPH WELLS WITHIN 1600 FEET OF THIS SITE  
NONE

CALCULATED FIELDS (BASED ON LATITUDE / LONGITUDE)

APN 023 042401801	GW BASIN NAME Santa Clara Valley - East Bay Plain (2-9.04)	WATERSHED NAME South Bay - East Bay Cities (204.20)
COUNTY Alameda	PUBLIC WATER SYSTEM(S) • EAST BAY MUD - 375 ELEVENTH STREET, OAKLAND, CA 94607	

MOST RECENT CONCENTRATIONS OF PETROLEUM CONSTITUENTS IN GROUNDWATER - [HIDE](#) [VIEW ESI SUBMITTALS](#)

FIELD PT NAME	DATE	TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	MTBE	TBA
QA	9/24/2003		ND	ND	ND	ND	ND	ND
QA-TB	3/11/2002	OTHER	ND	ND	ND	ND	ND	ND
TB-LB	12/10/2001	OTHER	ND	ND	ND	ND	ND	ND
TB1	6/6/2012	OTHER	ND	ND	ND	ND	ND	ND
TB1_201006	6/28/2010	OTHER	ND	ND	ND	ND	ND	ND
TB2	12/4/2009	OTHER	ND	ND	ND	ND	ND	ND
U-1	3/12/2015	1810 UG/L	ND	ND	ND	2.4 UG/L	3.8 UG/L	976 UG/L
U-1_201006	6/28/2010	OTHER	ND	ND	2.1 UG/L	2.2 UG/L	5.1 UG/L	1110 UG/L
U-2	3/12/2015	219 UG/L	ND	ND	ND	ND	45.5 UG/L	2520 UG/L
U-2_201006	6/28/2010	OTHER	0.64 UG/L	ND	18.5 UG/L	ND	55.9 UG/L	3750 UG/L
U-3	3/12/2015	ND	ND	ND	ND	ND	ND	ND
U-3_201006	6/28/2010	OTHER	ND	ND	ND	ND	ND	ND
U-4	3/12/2015	ND	ND	ND	ND	ND	ND	ND
U-4_201006	6/28/2010	OTHER	ND	ND	ND	ND	ND	ND
U-5	3/12/2015	56.1 UG/L	ND	ND	ND	ND	4.8 UG/L	125 UG/L
U-5_201006	6/28/2010	OTHER	ND	ND	ND	ND	3.8 UG/L	66.6 UG/L
U-6	3/12/2015	ND	ND	ND	ND	ND	2.3 UG/L	179 UG/L
U-6_201006	6/28/2010	OTHER	ND	ND	ND	ND	ND	11.4 UG/L

MOST RECENT CONCENTRATIONS OF PETROLEUM CONSTITUENTS IN SOIL - [HIDE](#) [VIEW ESI SUBMITTALS](#)

FIELD PT NAME	DATE	TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	MTBE	TBA
C-1	4/12/2006		ND	ND	76 MG/KG	340 MG/KG	0.029 MG/KG	0.17 MG/KG
C-2	4/11/2006		ND	ND	ND	ND	0.16 MG/KG	0.047 MG/KG
C-3	4/11/2006		ND	ND	ND	ND	1.9 MG/KG	ND
COMPOSIT	4/12/2006		ND	ND	ND	0.068 MG/KG	1 MG/KG	2.2 MG/KG

MOST RECENT GEO\_WELL DATA - [HIDE](#) [VIEW ESI SUBMITTALS](#)

FIELD PT NAME	DATE	DEPTH TO WATER (FT)	SHEEN	DEPTH TO FREE PRODUCT (FT)
U-1	3/12/2015	9.03	N	
U-2	3/12/2015	7.49	N	
U-3	3/12/2015	10.57	N	
U-4	3/12/2015	8.78	N	
U-5	3/12/2015	7.42	N	
U-6	3/12/2015	7.76	N	

# ATTACHMENT 2

LTCP Checklist <input type="text" value="Go"/>	<a href="#">GEOTRACKER HOME</a>   <a href="#">MANAGE PROJECTS</a>   <a href="#">REPORTS</a>   <a href="#">SEARCH</a>   <a href="#">LOGOUT</a>
<b>UNOCAL #5325 (T0600101463) - <a href="#">MAP THIS SITE</a></b> <span style="float: right;"><b>COMPLETED - CASE CLOSED</b></span>	
3220 LAKESHORE AVE. OAKLAND, CA 94610 ALAMEDA COUNTY <a href="#">VIEW PRINTABLE CASE SUMMARY FOR THIS SITE</a>	<a href="#">ACTIVITIES REPORT</a> <a href="#">PUBLIC WEBPAGE</a>
<b>CLEANUP OVERSIGHT AGENCIES</b> ALAMEDA COUNTY LOP (LEAD) - CASE #: R00000229 CASEWORKER: <a href="#">KEITH NOWELL</a> - SUPERVISOR: DILAN ROE SAN FRANCISCO BAY RWOCB (REGION 2) - CASE #: 01-1588 CASEWORKER: <a href="#">Cherie McCaulou</a> - SUPERVISOR: Cheryl L. Prowell CUF Claim #: 6854 CUF Priority Assigned: D CUF Amount Paid: \$0 CR Site ID #: NOT SPECIFIED	
THIS PROJECT WAS LAST MODIFIED BY <a href="#">KEITH NOWELL</a> ON 11/17/2015 2:45:15 PM - <a href="#">HISTORY</a>	
THIS SITE HAS SUBMITTALS. CLICK <a href="#">HERE</a> TO OPEN A NEW WINDOW WITH THE SUBMITTAL APPROVAL PAGE FOR THIS SITE.	
<b>CLOSURE POLICY</b> <span style="float: right;"><a href="#">CLOSURE POLICY HISTORY</a></span>	
<b>THIS VERSION IS FINAL AS OF 11/17/2015</b>	
CHECKLIST INITIATED ON 7/30/2013	
<b>General Criteria - The site satisfies the policy general criteria - <a href="#">CLEAR SECTION ANSWERS</a></b> <span style="float: right;"><input type="text" value="YES"/></span>	
a. Is the unauthorized release located within the service area of a public water system?	
Name of Water System : <input type="text" value="East Bay MUD"/>	<input checked="" type="radio"/> YES <input type="radio"/> NO
b. The unauthorized release consists only of petroleum ( <a href="#">info</a> ).	
<input checked="" type="radio"/> YES <input type="radio"/> NO	
c. The unauthorized ("primary") release from the UST system has been stopped.	
<input checked="" type="radio"/> YES <input type="radio"/> NO	
d. Free product has been removed to the maximum extent practicable ( <a href="#">info</a> ).	
<input type="radio"/> FP Not Encountered <input checked="" type="radio"/> YES <input type="radio"/> NO	
e. A conceptual site model that assesses the nature, extent, and mobility of the release has been developed ( <a href="#">info</a> ).	
<input checked="" type="radio"/> YES <input type="radio"/> NO	
f. Secondary source has been removed to the extent practicable ( <a href="#">info</a> ).	
<input checked="" type="radio"/> YES <input type="radio"/> NO	
g. Soil or groundwater has been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15.	
<input type="radio"/> Not Required <input checked="" type="radio"/> YES <input type="radio"/> NO	
h. Does a nuisance exist, as defined by <a href="#">Water Code section 13050</a> .	
<input type="radio"/> YES <input checked="" type="radio"/> NO	
<b>1. Media-Specific Criteria: Groundwater - The contaminant plume that exceeds water quality objectives is stable or decreasing in areal extent, and meets all of the additional characteristics of one of the five classes of sites listed below. - <a href="#">CLEAR SECTION ANSWERS</a></b> <span style="float: right;"><input type="text" value="YES"/></span>	
<b>EXEMPTION - Soil Only Case (Release has <u>not</u> Affected Groundwater - <a href="#">Info</a>)</b>	
<input type="radio"/> YES <input checked="" type="radio"/> NO	
Does the site meet any of the Groundwater specific criteria scenarios?	
<input checked="" type="radio"/> YES <input type="radio"/> NO	
1.2 - The contaminant plume that exceeds water quality objectives is <250 feet in length. There is no free product. The nearest existing water supply well or surface water body is >1,000 feet from the defined plume boundary. The dissolved concentration of benzene is <3,000 µg/L. The dissolved concentration of MTBE is <1,000 µg/L.	
<input checked="" type="radio"/> YES <input type="radio"/> NO	
<b>2. Media Specific Criteria: Petroleum Vapor Intrusion to Indoor Air - The site is considered low-threat for the vapor-intrusion-to-air pathway if site-specific conditions satisfy items 2a, 2b, or 2c - <a href="#">CLEAR SECTION ANSWERS</a></b> <span style="float: right;"><input type="text" value="YES"/></span>	
<b>EXEMPTION - Active Commercial Petroleum Fueling Facility</b>	
<input checked="" type="radio"/> YES <input type="radio"/> NO	
<b>3. Media Specific Criteria: Direct Contact and Outdoor Air Exposure - The site is considered low-threat for direct contact and outdoor air exposure if it meets 1, 2, or 3 below. - <a href="#">CLEAR SECTION ANSWERS</a></b> <span style="float: right;"><input type="text" value="NO"/></span>	
<b>EXEMPTION - The upper 10 feet of soil is free of petroleum contamination</b>	
<input type="radio"/> YES <input checked="" type="radio"/> NO	
Does the site meet any of the Direct Contact and Outdoor Air Exposure criteria scenarios?	
<input type="radio"/> YES <input checked="" type="radio"/> NO	
<b>ADDITIONAL QUESTIONS - Please Indicate only those conditions that do not meet the policy criteria:</b>	
Exposure Type : <input type="radio"/> Residential <input checked="" type="radio"/> Commercial <input type="radio"/> Utility Worker	
<b>Petroleum Constituents in Soil :</b> <input type="radio"/> ≤ 5 Feet bgs <input checked="" type="radio"/> >5 Feet bgs and ≤10 Feet bgs <input type="radio"/> Unknown	
<b>Soil Concentrations of Benzene :</b> <input type="radio"/> > 1.9 mg/kg and ≤ 2.8 mg/kg <input type="radio"/> > 2.8 mg/kg and ≤ 8.2 mg/kg <input checked="" type="radio"/> > 8.2 mg/kg and ≤ 12 mg/kg <input type="radio"/> > 12 mg/kg and ≤ 14 mg/kg <input type="radio"/> > 14 mg/kg <input type="radio"/> Unknown	
<b>Soil Concentrations of EthylBenzene :</b> <input type="radio"/> > 21 mg/kg and ≤ 32 mg/kg <input checked="" type="radio"/> > 32 mg/kg and ≤ 89 mg/kg <input type="radio"/> > 89 mg/kg and ≤ 134 mg/kg <input type="radio"/> > 134 mg/kg and ≤ 314 mg/kg <input type="radio"/> > 314 mg/kg <input type="radio"/> Unknown	
<b>Soil Concentrations of Naphthalene :</b> <input type="radio"/> > 9.7 mg/kg and ≤ 45 mg/kg <input type="radio"/> > 45 mg/kg and ≤ 219 mg/kg <input type="radio"/> > 219 mg/kg <input checked="" type="radio"/> Unknown	
<b>Soil Concentrations of PAH :</b> <input type="radio"/> > 0.063 mg/kg and ≤ 0.68 mg/kg <input type="radio"/> > 0.68 mg/kg and ≤ 4.5 mg/kg <input type="radio"/> > 4.5 mg/kg <input checked="" type="radio"/> Unknown	
<b>Area of Impacted Soil :</b> <input type="radio"/> Area of Impacted Soil > 82 by 82 Feet <input type="radio"/> Unknown	

<b>Additional Information</b>	
Should this case be closed in spite of NOT meeting policy criteria?	
<b>Explain:</b> This case does not meet the LTCP Direct Contact and Outdoor Air Exposure Specific criteria as it is unclear if naphthalene or PAH data were collected in the 0- to 5-foot zone and the site operated a waste oil UST (WOT). Naphthalene and PAHs were analytes for a soil sample collected in June 1990 from the side wall of the WOT pit, and concentrations of naphthalene and PAHs were documented below the laboratory reporting limit for the sample collected. Depth of the sample was not identified, hence it is unclear if the sample represents the 0- to 5-foot or 5- to 10-foot zone. Analytical results for soil sample WOT-8.0, collected from beneath the WOT removed in 1996, did not reveal the presence of TPHg, BTEX, MTBE, halogenated volatile organics or semi-volatile organic compounds, including PAHs, indicating the WOT did not experience a release. Therefore, the concentrations of naphthalene and PAHs in the 0- to 5-foot interval, if present, are anticipated to be at levels below the concentrations listed in Table 1.	<input checked="" type="radio"/> YES <input type="radio"/> NO
Has this LTCP Checklist been updated for FY 15/16?	
<input checked="" type="radio"/> YES <input type="radio"/> NO	
<a href="#">SPELL CHECK</a>	
<input type="button" value="Save Form as Partially Completed"/>	<input type="button" value="Save Form as Complete"/>

LOGGED IN AS KNOWELL

[CONTACT GEOTRACKER HELP](#)

# ATTACHMENT 3

**ATTACHMENT 3  
LTCP GROUNDWATER SPECIFIC CRITERIA**

**LTCP Groundwater Specific Scenario under which case was closed: Scenario 2**

Site Data		LTCP Scenario 1 Criteria	LTCP Scenario 2 Criteria	LTCP Scenario 3 Criteria	LTCP Scenario 4 Criteria
Plume Length	240 feet	<100 feet	<250 feet	<250 feet	<1,000 feet
Free Product	No free product	No free product	No free product	Removed to maximum extent practicable	No free product
Plume Stable or Decreasing	Decreasing	Stable or decreasing	Stable or decreasing	Stable or decreasing for minimum of 5 Years	Stable or decreasing
Distance to Nearest Water Supply Well	> 2,600 feet	>250 feet	>1,000 feet	>1,000 feet	>1,000 feet
Distance to Nearest Surface Water and Direction	1,200 feet down gradient	>250 feet	>1,000 feet	>1,000 feet	>1,000 feet
Property Owner Willing to Accept a Land Use Restriction?	Not applicable for groundwater specific criteria.	Not applicable	Not applicable	Yes	Not applicable

**GROUNDWATER CONCENTRATIONS**

Constituent	Historic Site Maximum (µg/L)	Current Site Maximum (µg/L)	LTCP Scenario 1 Criteria (µg/L)	LTCP Scenario 2 Criteria (µg/L)	LTCP Scenario 3 Criteria (µg/L)	LTCP Scenario 4 Criteria (µg/L)
Benzene	5,100 (U-2 on 12/09/1996)	<1.2 (U-2 on 3/12/2015)	No criteria	<3,000	No criteria	<1,000
MTBE	83,000 (U-1 on 9/27/2000)	45.5 (U-2 on 3/12/2015)	No criteria	<1,000	No criteria	<1,000
TPH Gasoline	1,100,000 (U-1 on 12/28/1998)	1,810 (U-1 on 3/12/2015)	No criteria	No criteria	No criteria	No criteria
TBA	13,000 (U-2 on 9/28/2005)	2,520 (U-2 on 3/12/2015)	No criteria	No criteria	No criteria	No criteria

Scenario 5: If the site does not meet scenarios 1 through 4, has a determination been made that under current and reasonably expected future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame?

----

Comments: Water Supply Wells in Vicinity: No water supply wells were identified within 2,600 feet of the site.

# ATTACHMENT 4



**ATTACHMENT 4  
LTCP VAPOR SPECIFIC CRITERIA**

**LTCP Vapor Specific Scenario under which case was closed: Active fueling station exempt from vapor specific criteria.**

Active Fueling Station      Active as of 11/05/2015

Site Data		LTCP Scenario 1 Criteria	LTCP Scenario 2 Criteria	LTCP Scenario 3A Criteria	LTCP Scenario 3B Criteria	LTCP Scenario 3C Criteria	LTCP Scenario 4 Criteria
Unweathered LNAPL	No LNAPL	LNAPL in groundwater	LNAPL in soil	No LNAPL	No LNAPL	No LNAPL	No criteria
Thickness of Bioattenuation Zone Beneath Foundation	> 5 feet	≥30 feet	≥30 feet	≥5 feet	≥10 feet	≥5 feet	≥5 feet
Total TPH in Soil in Bioattenuation Zone	>100 mg/kg (800 mg/kg TPHg, PL4-3.5 at 3.5')	<100 mg/kg	<100 mg/kg	<100 mg/kg	<100 mg/kg	<100 mg/kg	<100 mg/kg
Maximum Current Benzene Concentration in Groundwater	< 1.2 µg/L	No criteria	No criteria	<100 µg/L	≥100 and <1,000 µg/L	<1,000 µg/L	No criteria
Oxygen Data within Bioattenuation Zone	No oxygen data	No criteria	No criteria	No oxygen data or <4%	No oxygen data or <4%	≥4% at lower end of zone	≥4% at lower end of zone
Depth of soil vapor measurement beneath foundation	---	No criteria	No criteria	No criteria	No criteria	No criteria	≥5 feet

**SCENARIO 4 DIRECT MEASUREMENT OF SOIL VAPOR CONCENTRATIONS**

Site Soil Vapor Data			No Bioattenuation Zone		Bioattenuation Zone	
Constituent	Historic Maximum (µg/m³)	Current Maximum (µg/m³)	Residential	Commercial	Residential	Commercial
Benzene	---	---	<85	<280	<85,000	<280,000
Ethylbenzene	---	---	<1,100	<3,600	<1,100,000	<3,600,000
Naphthalene	---	---	<93	<310	<93,000	<310,000

If the site does not meet scenarios 1 through 4, does a site-specific risk assessment for the vapor intrusion pathway demonstrate that human health is protected?	---
If the site does not meet scenarios 1 through 4, has a determination been made that petroleum vapors from soil or groundwater will have no significant risk of adversely affecting human health?	---

Comments: Active fueling stations are exempt from vapor specific criteria.

# ATTACHMENT 5

**ATTACHMENT 5  
LTCP DIRECT CONTACT AND OUTDOOR AIR EXPOSURE CRITERIA**

**LTCP Direct Contact and Outdoor Air Exposure Specific Scenario under which case was closed: This case should be closed in spite of not meeting the direct contact and outdoor air specific media criteria.**

Are maximum concentrations less than those in Table 1 below?		---				
Constituent		Residential		Commercial/Industrial		Utility Worker
		0 to 5 feet bgs (mg/kg)	Volatilization to outdoor air (5 to 10 feet bgs) mg/kg	0 to 5 feet bgs (mg/kg)	Volatilization to outdoor air (5 to 10 feet bgs) mg/kg	0 to 10 feet bgs (mg/kg)
Site Maximum	Benzene	3.6 PL4-5.0	11 UX-14 @ 7.5'	3.6	11	11
LTCP Criteria	Benzene	≤1.9	≤2.8	≤8.2	≤12	≤14
Site Maximum	Ethylbenzene	16 PL5-5.0	63 UX-14 @ 7.5'	12	63	63
LTCP Criteria	Ethylbenzene	≤21	≤32	≤89	≤134	≤314
Site Maximum	Naphthalene	----	<0.25 WOT-8.0	----	<0.25	----
LTCP Criteria	Naphthalene	≤9.7	≤9.7	≤45	≤45	≤219
Site Maximum	PAHs	----	Non-detect WOT-8.0	----	Non-detect	----
LTCP Criteria	PAHs	≤0.063	NA	≤0.68	NA	≤4.5
If maximum concentrations are greater than those in Table 1, are they less than levels from a site-specific risk assessment?		----				
If maximum concentrations are greater than those in Table 1, has a determination been made that the concentrations of petroleum in soil will have no significant risk of adversely affecting human health as a result of controlling exposure through the use of mitigation measures or through the use of institutional controls?		----				
<p>Comments: This case does not meet the LTCP Direct Contact and Outdoor Air Exposure Specific criteria as it is unclear if naphthalene or PAH data were collected in the 0- to 5-foot zone and the site operated a waste oil UST (WOT). Naphthalene and PAHs were analytes for a soil sample collected in June 1990 from the side wall of the WOT pit, and concentrations of naphthalene and PAHs were documented below the laboratory reporting limit for the sample collected. Depth of the sample was not identified, hence it is unclear if the sample represents the 0- to 5-foot or 5- to 10-foot zone. Analytical results for soil sample WOT-8.0, collected from beneath the WOT removed in 1996, did not reveal the presence of TPHg, BTEX, MTBE, halogenated volatile organics or semi-volatile organic compounds, including PAHs, indicating the WOT did not experience a release. Therefore, the concentrations of naphthalene and PAHs in the 0- to 5-foot interval, if present, are anticipated to be at levels below the concentrations listed in Table 1.</p>						

# ATTACHMENT 6

# GEOTRACKER

## MAP LAYERS

- Leaking Underground Storage Tank (LUST) Cleanup Sites
- Other Cleanup Sites
- Land Disposal Sites
- Military Sites
- WDR Sites
- Non-Case Information
- Irrigated Lands Regulatory Program
- Permitted Underground Storage Tank (UST) Facilities
- Oil and Gas Programs
- Sampling Points
- Zoom in to See Field Points
- DTSC Cleanup Sites
- DTSC Haz Waste Permit
- DWR Groundwater Basins - [INFO](#)
- Public Water Systems - [INFO](#)

SIGNIFIES A CLOSED SITE

### CLEANUP STATUS FILTER

All Cleanup Statuses

ONLY SHOW SITES WITH LAND USE RESTRICTIONS

[Measure a Distance](#)

Enter an address

Map Address

Map Satellite

UNOCAL #5925 (T0600101463)

3220 LAKESHORE AVE.  
Oakland, CA 94610

*LUST Cleanup Site*

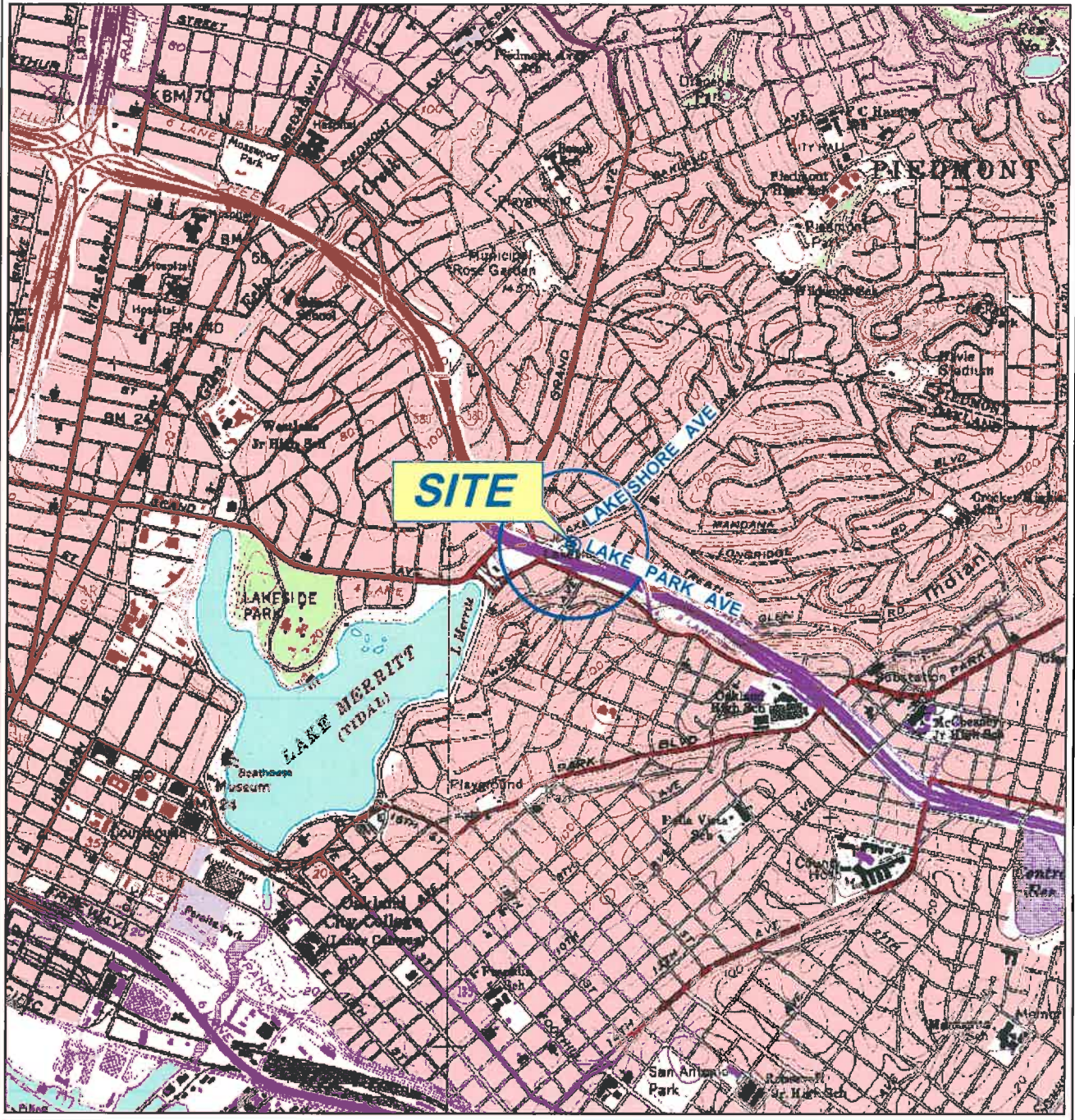
*Cleanup Status: Open - Remediation*  
*RB Case #: 01-1588*  
*Loc Case #: R0000229*



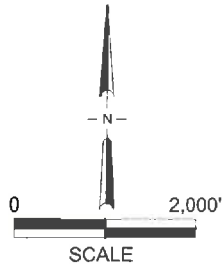
80 SITES CURRENTLY VISIBLE ON MAP

Map data ©2015 Google Imagery ©2015, DigitalGlobe, U.S. Geological Survey, USDA Farm Service Agency | 200 m

Highland Hospital H | [Terms of Use](#) | [Report a map error](#)



GENERAL NOTES:  
 BASE MAP FROM 3-D TOPO QUADS  
 OAKLAND WEST & OAKLAND EAST, CA. QUADRANGLE  
 7.5 MINUTE TOPOGRAPHIC MAP

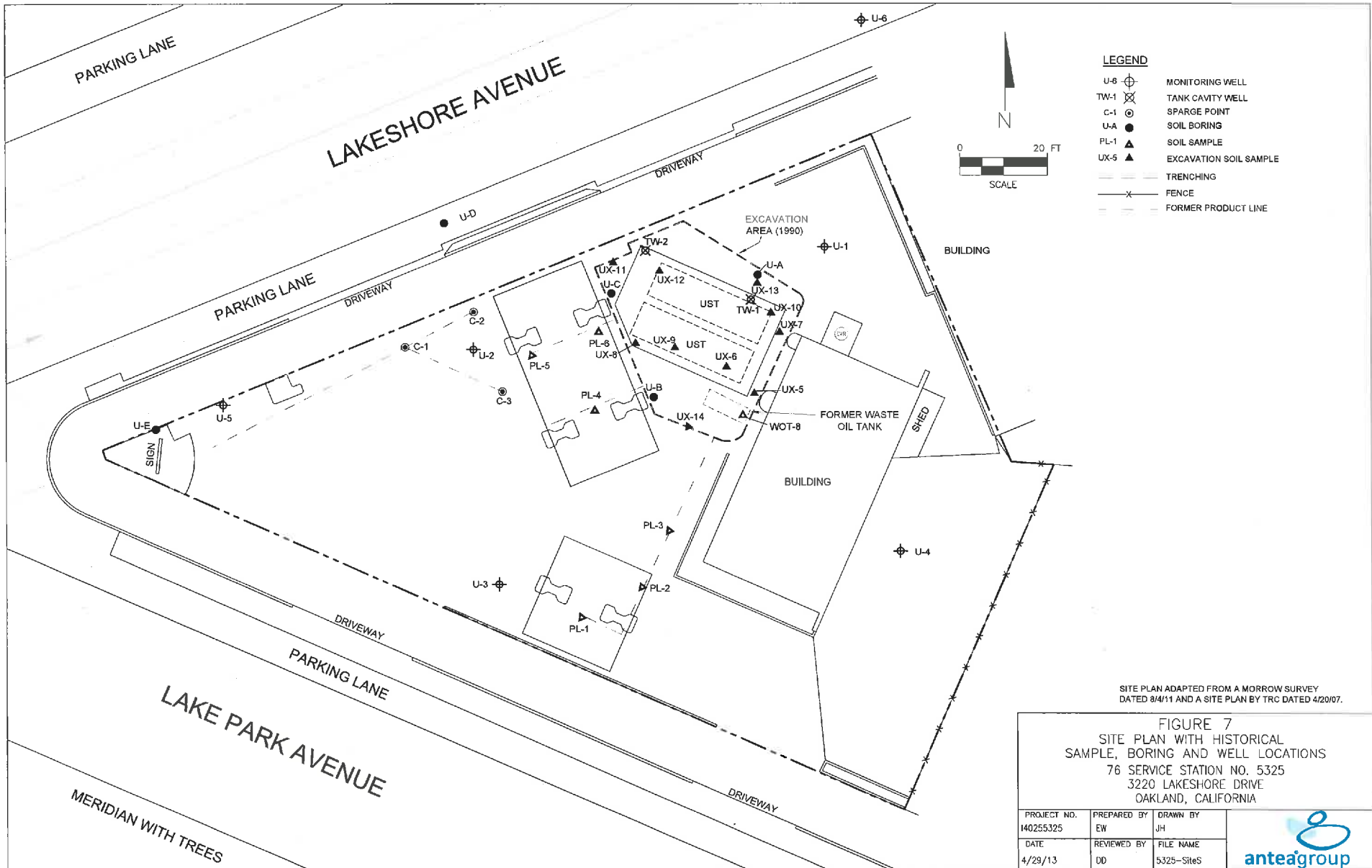


**FIGURE 1  
 SITE LOCATION MAP**

76 SERVICE STATION NO. 5325  
 3220 LAKESHORE AVENUE  
 OAKLAND, CALIFORNIA

PROJECT NO. 140255325	DRAWN BY JH
FILE NO. 5325-SLM	PREPARED BY EW
DATE 28 JAN 11	REV. 2 REVIEWED BY





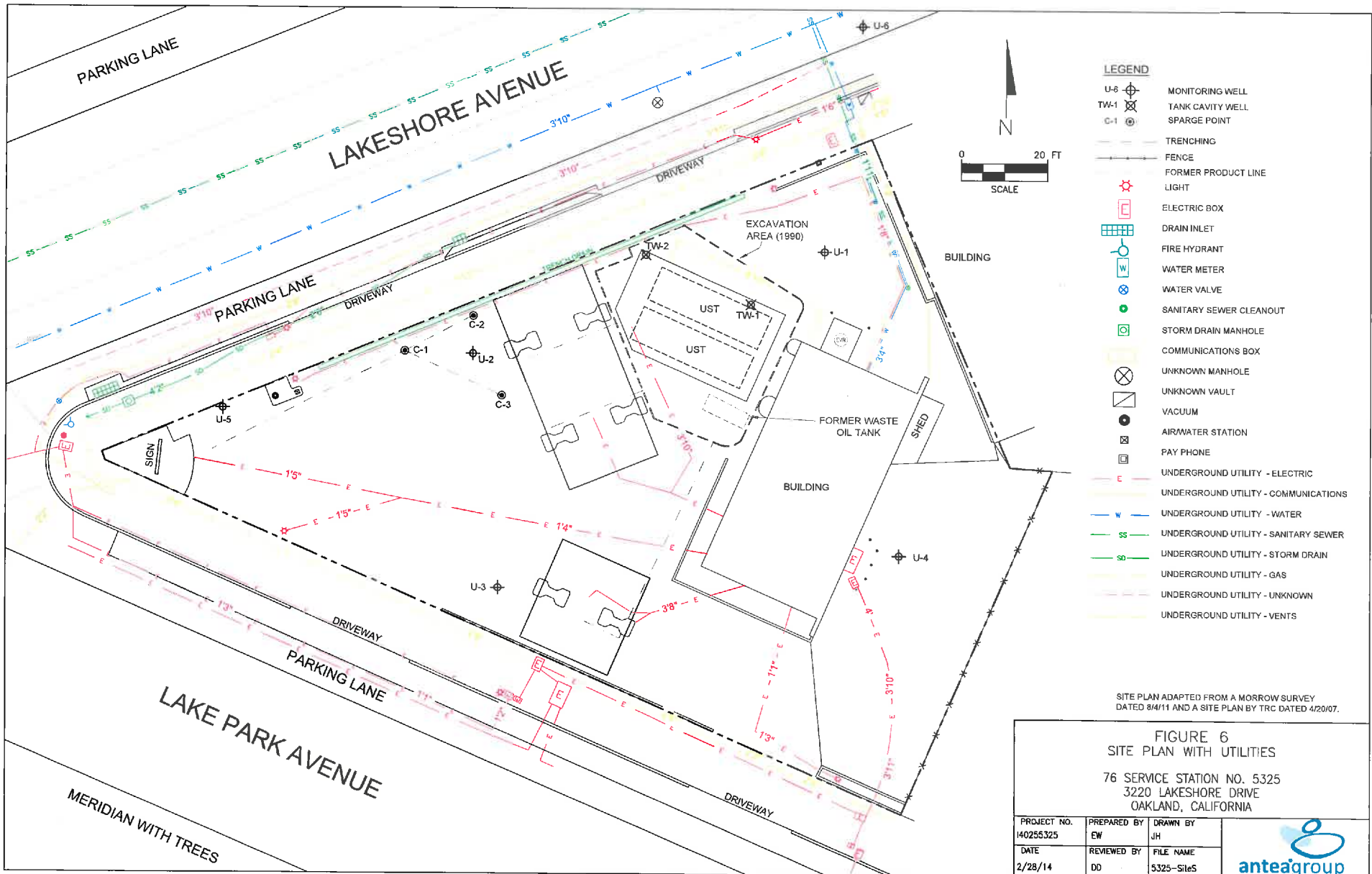
- LEGEND**
- U-6 MONITORING WELL
  - TW-1 TANK CAVITY WELL
  - C-1 SPARGE POINT
  - U-A SOIL BORING
  - PL-1 SOIL SAMPLE
  - UX-5 EXCAVATION SOIL SAMPLE
  - TRENCHING
  - FENCE
  - FORMER PRODUCT LINE

SITE PLAN ADAPTED FROM A MORROW SURVEY DATED 8/4/11 AND A SITE PLAN BY TRC DATED 4/20/07.

**FIGURE 7**  
 SITE PLAN WITH HISTORICAL SAMPLE, BORING AND WELL LOCATIONS  
 76 SERVICE STATION NO. 5325  
 3220 LAKESHORE DRIVE  
 OAKLAND, CALIFORNIA

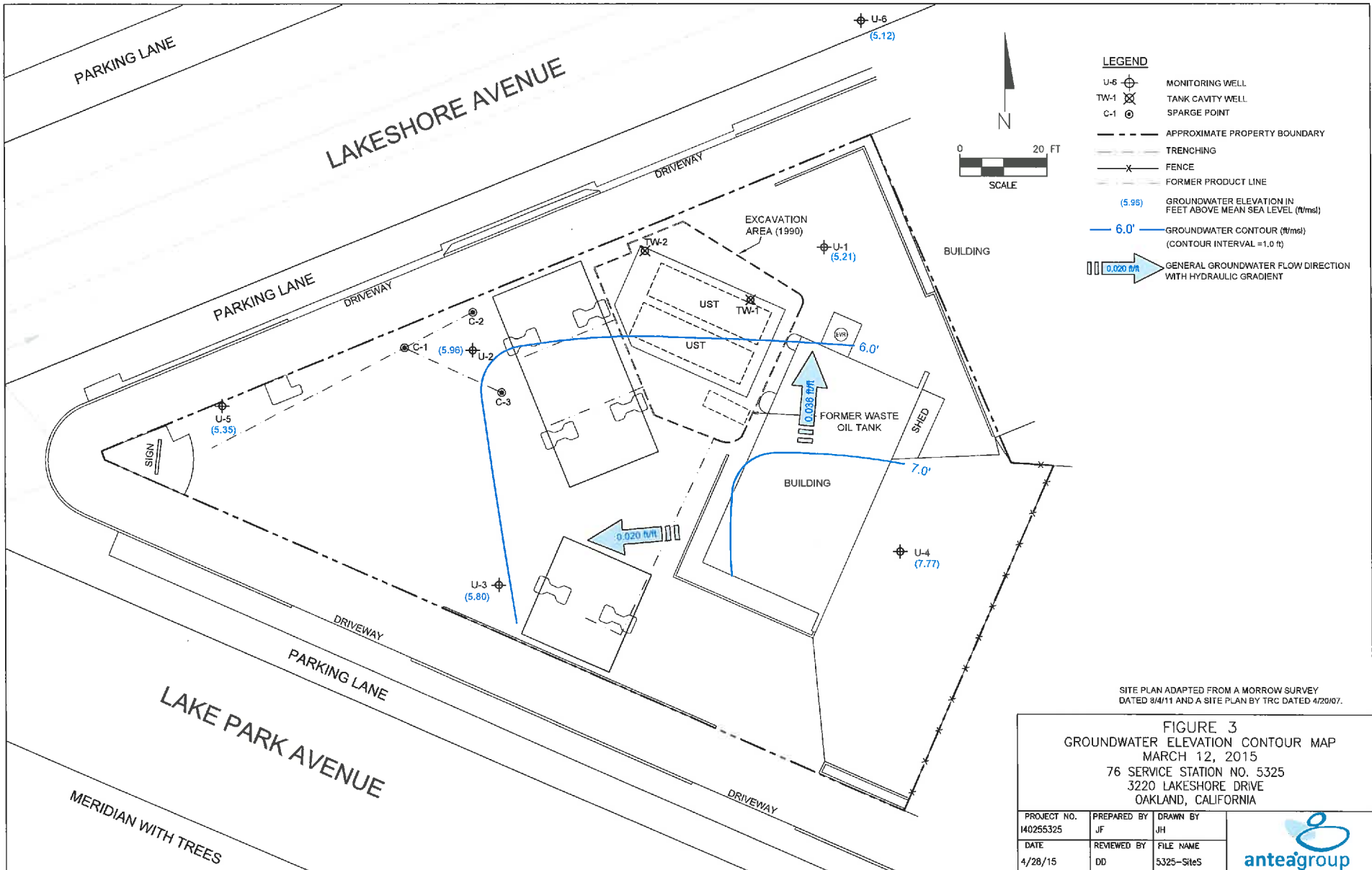
PROJECT NO. 140255325	PREPARED BY EW	DRAWN BY JH
DATE 4/29/13	REVIEWED BY DD	FILE NAME 5325-SiteS





SITE PLAN ADAPTED FROM A MORROW SURVEY DATED 8/4/11 AND A SITE PLAN BY TRC DATED 4/20/07.



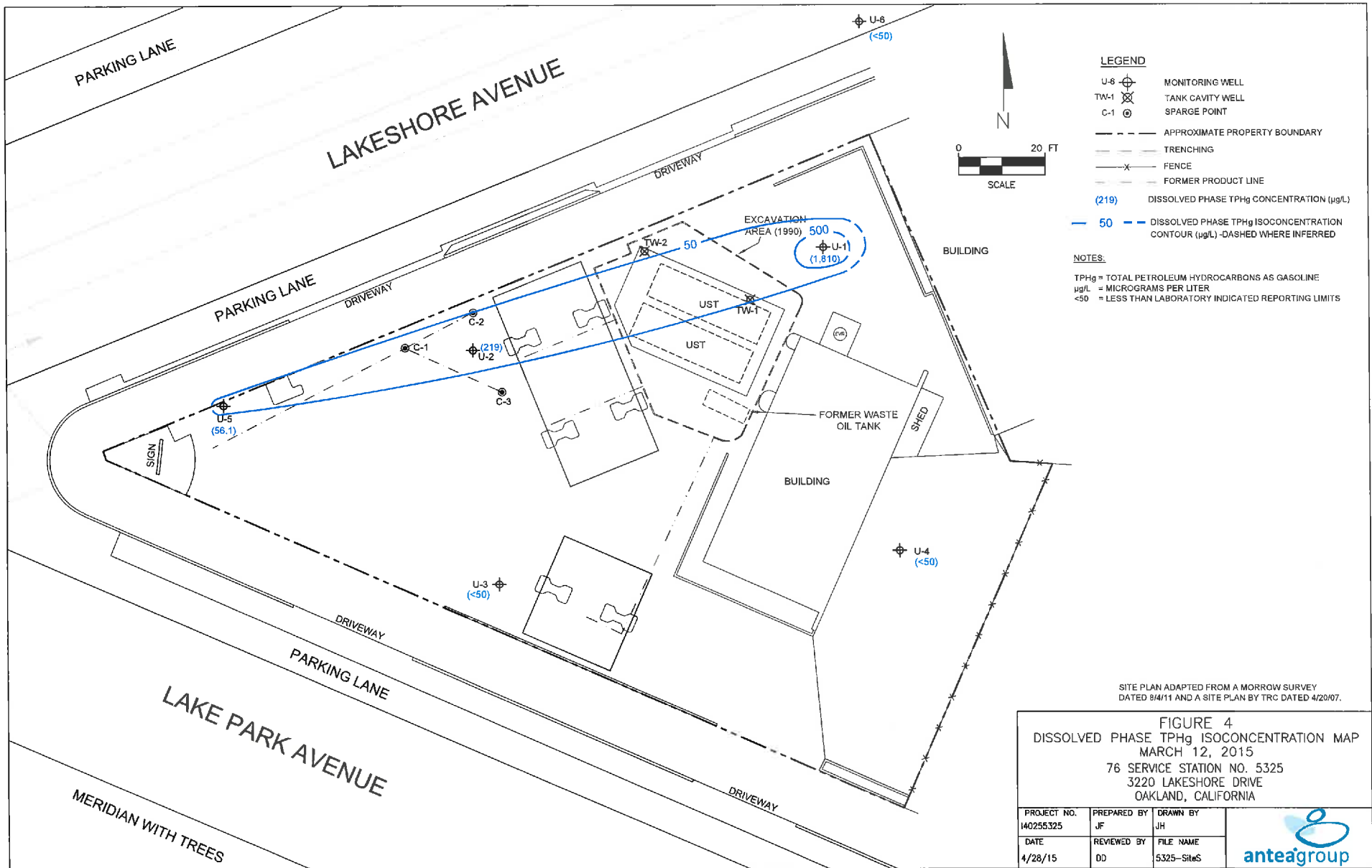


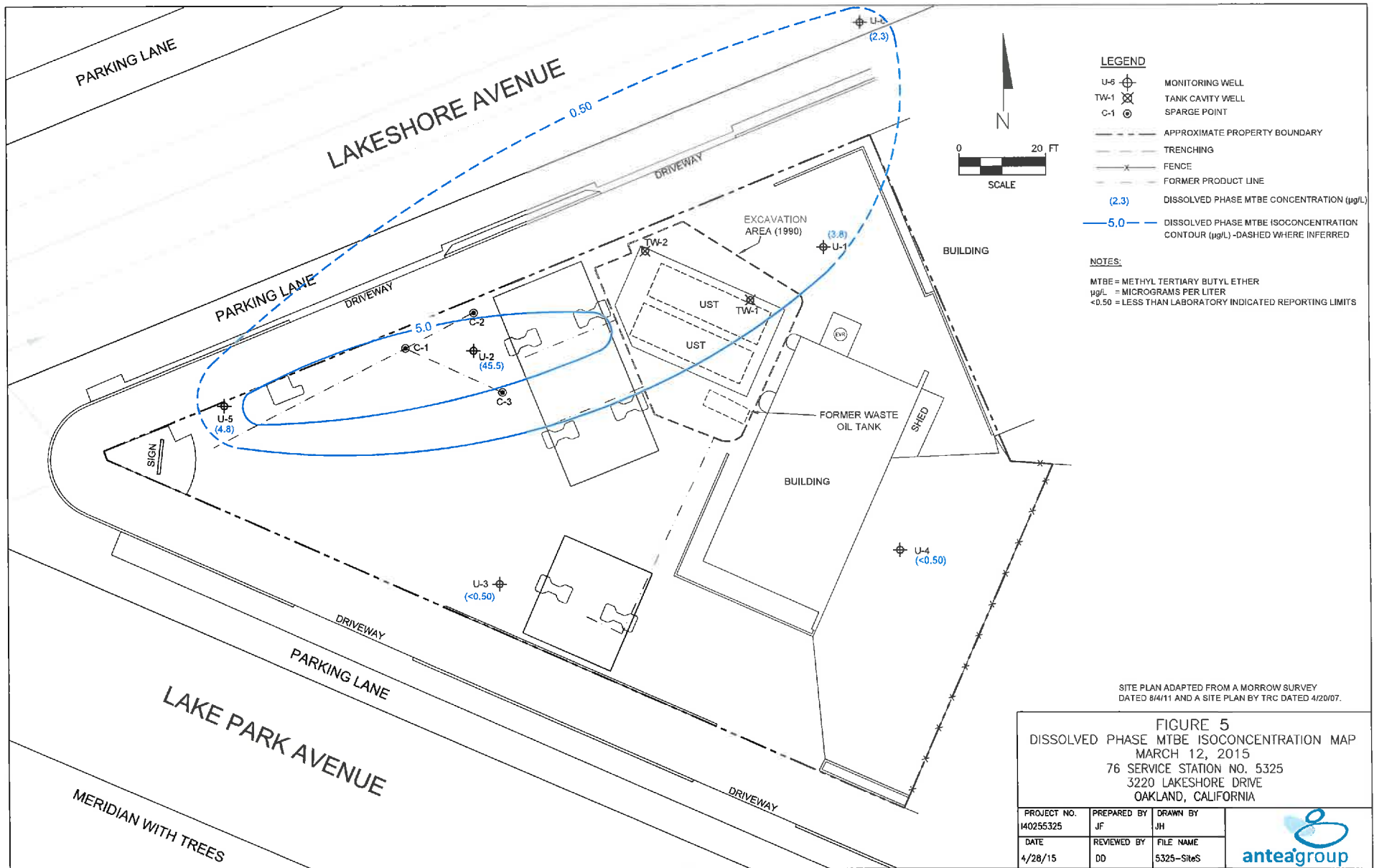
SITE PLAN ADAPTED FROM A MORROW SURVEY DATED 8/4/11 AND A SITE PLAN BY TRC DATED 4/20/07.

FIGURE 3  
GROUNDWATER ELEVATION CONTOUR MAP  
MARCH 12, 2015  
76 SERVICE STATION NO. 5325  
3220 LAKESHORE DRIVE  
OAKLAND, CALIFORNIA

PROJECT NO. 140255325	PREPARED BY JF	DRAWN BY JH
DATE 4/28/15	REVIEWED BY DD	FILE NAME 5325-Site5







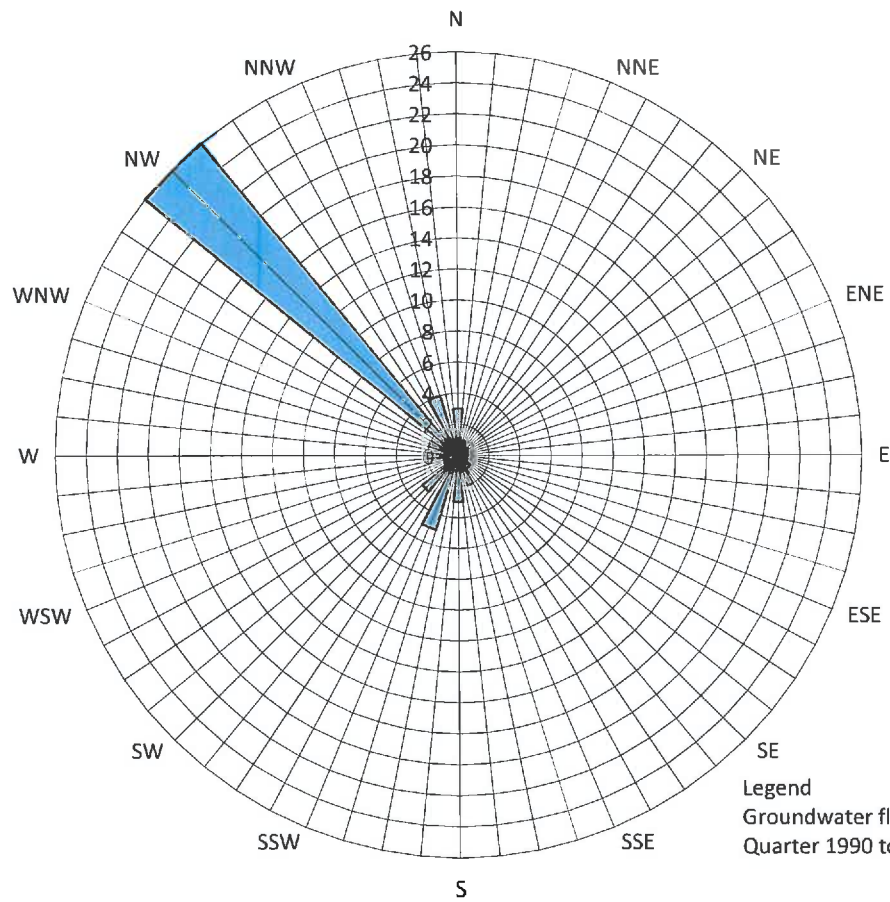
SITE PLAN ADAPTED FROM A MORROW SURVEY DATED 8/4/11 AND A SITE PLAN BY TRC DATED 4/20/07.

FIGURE 5  
 DISSOLVED PHASE MTBE ISOCONCENTRATION MAP  
 MARCH 12, 2015  
 76 SERVICE STATION NO. 5325  
 3220 LAKESHORE DRIVE  
 OAKLAND, CALIFORNIA

PROJECT NO. 140255325	PREPARED BY JF	DRAWN BY JH
DATE 4/28/15	REVIEWED BY DD	FILE NAME 5325-SiteS

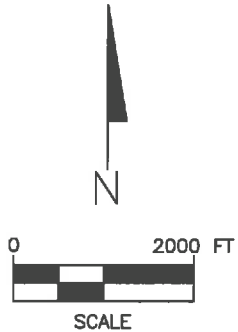
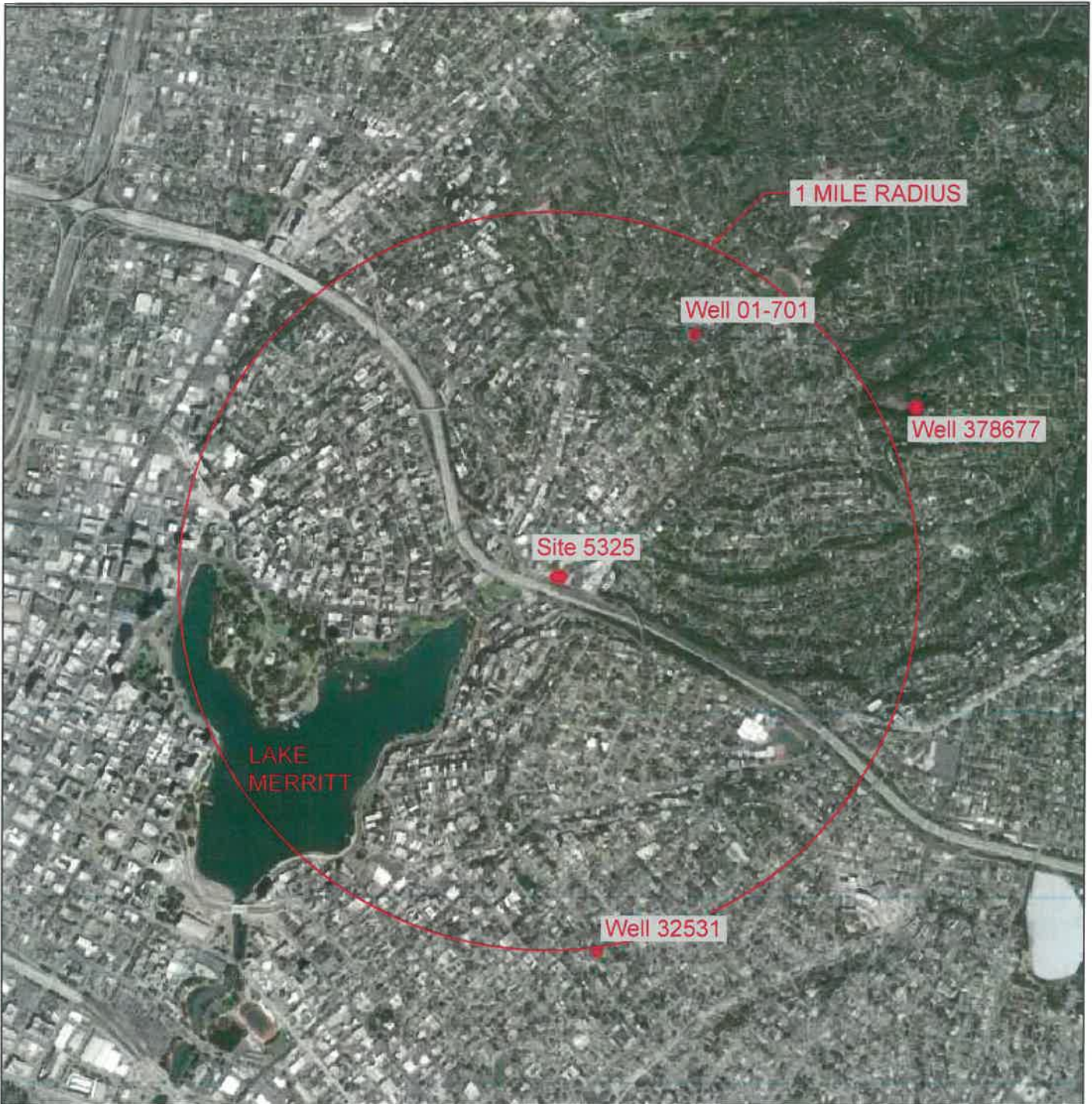


**Figure 6**  
**HISTORICAL GROUNDWATER FLOW DIRECTIONS**  
**76 SERVICE STATION NO. 5325**  
**3220 LAKESHORE AVENUE**  
**OAKLAND, CALIFORNIA**




**Legend**  
Groundwater flow directions are based on data from the Third Quarter 1990 to the First Quarter 2015. 53 data points shown.

■ Groundwater Flow Direction



**FIGURE 7**  
**SENSITIVE RECEPTOR MAP**  
  
 76 SERVICE STATION NO. 5325  
 3220 LAKESHORE DRIVE  
 OAKLAND, CALIFORNIA

PROJECT NO. 140255325	PREPARED BY EW	DRAWN BY JH	
DATE 2/26/14	REVIEWED BY DD	FILE NAME 5325-SRS	

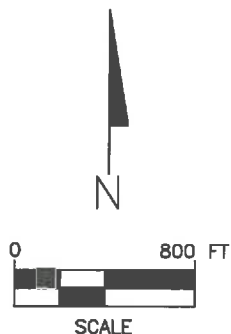
Permit	Tr	Section	Address	Longcity	Owner	Update	Xcoord	Ycoord	Matchlevel	Tsrq	Rec_code	Phone	City	Drilldate	Elevation	Totaldepth	Waterdepth	Diameter	Use	
15/4W	25A	29	Wildwood Avenue	Piedmont	Shell Oil Company	5/29/1990	122242572	37819286		0 15/4W 25A	12	0	PIE	7/89		0		4	10 BOR*	
15/4W	25A 4	29	Wildwood Avenue	Piedmont	Shell Oil Company	6/21/1990	122242572	37819286		0 15/4W 25A	312	0	PIE	1/90	34	16	6	4	MON	
15/4W	25A 5	29	Wildwood Avenue	Piedmont	Shell Oil Company	5/29/1990	122242572	37819286		0 15/4W 25A	13	0	PIE	7/89		0	15	4	MON	
15/4W	25A 6	29	Wildwood Avenue	Piedmont	Shell Oil Company	5/29/1990	122242572	37819286		0 15/4W 25A	14	0	PIE	7/89		0	12	4	MON	
15/4W	25A 7	29	Wildwood Avenue	Piedmont	Shell Oil Company	5/29/1990	122242572	37819286		0 15/4W 25A	15	0	PIE	7/89		0	10	4	MON	
15/4W	25A 8	29	Wildwood Avenue	Piedmont	Shell Oil Company	6/21/1990	122242572	37819286		0 15/4W 25A	313	0	PIE	1/90	32	17	6	4	MON	
15/4W	25H 1	3669	Grand Avenue	Oakland	Martini Company	2/27/1991	122245014	37816226		0 15/4W 25H	1083	0	OAK			40	6	2	MON	
15/4W	25I 1	3329	Lakeshore Av	Oakland	Lamorinda Development	9/19/1987	122244409	37810719		1 15/4W 25J	0	0	OAK	9/94		17	9	2	MON	
15/4W	25I 80	ADAMS & LEE ST		Oakland	PG&E	7/31/1984	122257500	37813700		0 15/4W 25L	2422	0	OAK	8/74		0	120	0	CAT	
15/4W	25P 1	363	GRAND AV.	Oakland	QUICK STOP MKTS.	6/15/1989	122255000	37809442		0 15/4W 25P	2431	0	OAK			0	0	0		
15/4W	25P 1						0	0		9 15/4W 25P	6820	0		Nov-88		30	24	2	MON	
15/4W	25P 10	350	Grand Ave.	Oakland	Shell Oil Company	3/8/1991	122255440	37809678		0 15/4W 25P	1106	0	OAK	1/91		17	11	3	MON	
15/4W	25P 11	350	Grand Ave.	Oakland	Shell Oil Company	3/8/1991	122255440	37809678		0 15/4W 25P	1107	0	OAK	1/91		15	11	3	MON	
15/4W	25P 12	363	Grand Ave.	Oakland	Quik Stop Markets	3/26/1991	122255000	37809442		0 15/4W 25P	1463	0	OAK	8/90		0	20	12	MON	
15/4W	25P 13	460	Grand Ave.	Oakland	Chevron C-1	4/8/1993	122251821	37809129		1 15/4W 25P	8368	0	OAK		Dec-92	0	15	5	2	MON
15/4W	25P 14	460	Grand Ave.	Oakland	Chevron C-2	4/8/1993	122251821	37809129		1 15/4W 25P	8369	0	OAK		Dec-92	0	15	8	2	MON
15/4W	25P 15	460	Grand Ave.	Oakland	Chevron C-3	4/8/1993	122251821	37809129		1 15/4W 25P	8370	0	OAK		Dec-92	0	15	6	2	MON
15/4W	25P 16	460	Grand Av	Oakland	Chevron USA	7/17/1997	122251950	37809297		1 15/4W 25P	0	0	OAK	5/95		0	20	18	2	MON
15/4W	25P 2	363	GRAND AV.	Oakland	QUICK STOP MKTS.	6/15/1989	122255000	37809442		0 15/4W 25P	2432	0	OAK		Nov-88	0	36	30	2	MON
15/4W	25P 3	363	GRAND AV.	Oakland	QUICK STOP MKTS.	6/15/1989	122255000	37809442		0 15/4W 25P	2433	0	OAK		Nov-88	0	36	25	2	MON
15/4W	25P 4	363	Grand Avenue	Oakland	Quik Stop Markets, Inc.	6/21/1990	122255000	37809442		0 15/4W 25P	307	0	OAK	3/90		0	30	3	2	MON
15/4W	25P 5	363	Grand Avenue	Oakland	Quik Stop Markets, Inc.	6/21/1990	122255000	37809442		0 15/4W 25P	308	0	OAK	3/90		0	30	2	MON	
15/4W	25P 6	363	Grand Avenue	Oakland	Quik Stop Markets, Inc.	6/21/1990	122255000	37809442		0 15/4W 25P	309	0	OAK	3/90		0	30	23	2	MON
15/4W	25P 7	363	Grand Avenue	Oakland	Quik Stop Markets, Inc.	6/21/1990	122255000	37809442		0 15/4W 25P	310	0	OAK	3/90		0	24	15	2	MON
15/4W	25P 8	363	Grand Avenue	Oakland	Quik Stop Markets, Inc.	6/21/1990	122255000	37809442		0 15/4W 25P	311	0	OAK	3/90		0	29	20	2	MON
15/4W	25P 9	350	Grand Ave.	Oakland	Shell Oil Company	3/8/1991	122255440	37809678		0 15/4W 25P	1105	0	OAK		Nov-90	0	39	0	2	PIE
15/4W	25Q	500	Grand Avenue	Oakland	Texaco Refining & Mrkting	6/4/1990	122251176	37809214		0 15/4W 25Q	122	0	OAK		Oct-89	0	0	8	BOR*	
15/4W	25Q 01	500	GRAND AVE.	Oakland	TEXACO INC.	9/1/1989	122251176	37809214		0 15/4W 25Q	2434	0	OAK		Mar-89	0	17	12	4	MON
15/4W	25Q 02	500	GRAND AVE.	Oakland	TEXACO INC.	9/1/1989	122251176	37809214		0 15/4W 25Q	2435	0	OAK		Mar-89	0	17	9	4	MON
15/4W	25Q 03	500	Grand Avenue	Oakland	Texaco Refining & Mrkting	6/4/1990	122251176	37809214		0 15/4W 25Q	119	0	OAK	1/90		0	15	4	MON	
15/4W	25Q 04	500	Grand Avenue	Oakland	Texaco Refining & Mrkting	6/4/1990	122251176	37809214		0 15/4W 25Q	120	0	OAK	1/90		0	15	6	4	MON
15/4W	25Q 05	500	Grand Avenue	Oakland	Texaco Refining & Mrkting	6/4/1990	122251176	37809214		0 15/4W 25Q	121	0	OAK	1/90		0	15	6	4	MON
15/4W	25Q 06	500	Grand Ave	Oakland	Texaco Rfng & Mktg MW&A	6/25/1993	122251176	37809214		1 15/4W 25Q	7765	0	OAK	8/92		0	16	0	2	DES
15/4W	25Q 07	500	Grand Ave	Oakland	Texaco Rfng & Mktg MW&E	6/25/1993	122251176	37809214		1 15/4W 25Q	7766	0	OAK	8/92		0	20	0	4	DES
15/4W	25Q 08	500	Grand Ave.	Oakland	Texaco MW-BB	6/17/1993	122251028	37809236		1 15/4W 25Q	0	0	OAK	3/93		0	0	0	0	DES
15/4W	25Q 09	500	Grand Ave.	Oakland	Texaco MW-8C	6/17/1993	122251028	37809236		1 15/4W 25Q	0	0	OAK	3/93		0	0	0	0	DES
15/4W	25Q 10	500	Grand Ave.	Oakland	Texaco MW-8L	7/13/1993	122251031	37809221		1 15/4W 25Q	0	0	OAK	5/93		0	18	3	2	MON
15/4W	25Q 11	500	Grand Ave.	Oakland	Texaco MW-8K	7/13/1993	122251031	37809221		1 15/4W 25Q	0	0	OAK	5/93		0	18	4	2	MON
15/4W	25R	637	Beacon	Oakland	Ranger Pipeline	7/13/1990	122246102	37808986		3 15/4W 25R	565	0	OAK		Oct-89	0	20	18	6	BOR*
15/4W	25R 1	637	Beacon	Oakland	Ranger Pipeline	7/13/1990	122246102	37808986		3 15/4W 25R	564	0	OAK		Oct-89	0	36	19	2	MON
15/4W	25R 2	3220	Lakeshore Ave	Oakland	Unocal Corporation	3/22/1991	122245320	37810600		0 15/4W 25R	1424	0	OAK	9/90		0	30	15	2	MON
15/4W	25R 3	3220	Lakeshore Ave	Oakland	Unocal Corporation	3/22/1991	122245320	37810600		0 15/4W 25R	1425	0	OAK	9/90		0	20	18	3	TES
15/4W	25R 4	3220	Lakeshore Ave	Oakland	Unocal Corporation	3/22/1991	122245320	37810600		0 15/4W 25R	1426	0	OAK	9/90		0	20	10	3	TES
15/4W	25R 5	3026	Lakeshore Ave	Oakland	Chevron Station #9-0121	8/1/1991	122244067	37810623		8 15/4W 25R	1876	0	OAK	4/91		0	35	21	2	MON
15/4W	25R 6	3026	Lakeshore Ave	Oakland	Chevron Station #9-0121	8/1/1991	122244067	37810623		8 15/4W 25R	1877	0	OAK	4/91		0	34	21	2	MON
15/4W	25R 7	3026	Lakeshore Ave	Oakland	Chevron Station #9-0121	8/1/1991	122244067	37810623		8 15/4W 25R	1878	0	OAK	4/91		0	15	0	0	DES
15/4W	25R 8	3026	Lakeshore Ave	Oakland	Chevron Station #9-0121	8/1/1991	122244067	37810623		8 15/4W 25R	1882	0	OAK	3/91		0	10	0	12	DES
15/4W	25R 9	3026	Lakeshore Ave	Oakland	Chevron Station #9-0121	8/1/1991	122244067	37810623		8 15/4W 25R	1883	0	OAK	3/91		0	10	0	12	DES
15/4W	25R 10	3026	Lakeshore Ave	Oakland	Chevron Station #9-0121	8/1/1991	122244067	37810623		8 15/4W 25R	1881	0	OAK	3/91		0	10	0	12	DES
15/4W	25R 11	3026	Lakeshore Ave	Oakland	Chevron Station #9-0121	8/1/1991	122244067	37810623		8 15/4W 25R	1880	0	OAK	3/91		0	16	0	8	DES
15/4W	25R 12	3026	Lakeshore Ave	Oakland	Chevron Station #9-0121	8/1/1991	122244067	37810623		8 15/4W 25R	1879	0	OAK	4/91		0	15	0	0	DES

	15/4W	25R 13	3026 Lakeshore Ave	Oakland	Chevron USA	mw-1	8/13/1992	122244067	37810623	1 15/4W 25R	7566	0 OAK	8/91	0	14	6	2 MON
	15/4W	25R 14	3026 Lakeshore Ave	Oakland	Chevron USA	MW-2	8/13/1992	122244067	37810623	1 15/4W 25R	7567	0 OAK	8/91	0	12	9	2 MON
	15/4W	25R 15	3026 Lakeshore Ave	Oakland	Chevron USA	MW-3	8/13/1992	122244067	37810623	1 15/4W 25R	7568	0 OAK	8/91	0	18	12	2 MON
	15/4W	25R 16	3026 Lakeshore Ave	Oakland	Chevron USA	MW-4	8/13/1992	122244067	37810623	1 15/4W 25R	7569	0 OAK	8/91	0	15	8	2 MON
	15/4W	25R 17	3026 Lakeshore Ave	Oakland	Chevron USA	MW-1	6/18/1993	122243944	37810575	1 15/4W 25R	0	0 OAK	6/92	0	22	5	4 MON
	15/4W	25R 18	3026 Lakeshore Ave	Oakland	Chevron USA	MW-5	6/18/1993	122243944	37810575	1 15/4W 25R	0	0 OAK	6/92	0	35	12	2 MON
	15/4W	25R 19	3026 Lakeshore Ave	Oakland	Chevron USA	MW-6	6/18/1993	122243944	37810575	1 15/4W 25R	0	0 OAK	6/92	0	20	5	2 MON
	15/4W	25R 20	3026 Lakeshore Ave	Oakland	Chevron USA	MW-7	6/18/1993	122243944	37810575	1 15/4W 25R	0	0 OAK	6/92	0	19	4	2 MON
	15/4W	25R 21	3026 Lakeshore Ave	Oakland	Chevron USA	MW-8	6/18/1993	122243944	37810575	1 15/4W 25R	0	0 OAK	6/92	0	30	24	2 MON
94124	15/4W	25R 22	3220 Lakeshore Av	Oakland	Unocal Corp		10/1/1997	122245187	37810610	1 15/4W 25R	0	0 OAK	6/94	0	20	10	4 MON
94124	15/4W	25R 23	3220 Lakeshore Av	Oakland	Unocal Corp		10/1/1997	122245187	37810610	1 15/4W 25R	0	0 OAK	6/94	0	20	6	4 MON
94124	15/4W	25R 24	3220 Lakeshore Av	Oakland	Unocal Corp		10/1/1997	122245187	37810610	1 15/4W 25R	0	0 OAK	6/94	0	24	7	2 MON
97344	15/4W	25R 25	3220 Lakeshore Ave	Oakland	Unocal		7/30/1998	122245153	37810610	1 15/4W 25R	0	0 OAK	6/97	0	15	0	4 OBS
	15/4W	36G 1	2101 Park Blvd	Oakland	Shell Oil Products Co		9/19/1997	122247351	37801069	1 15/4W 36G	0	0 OAK	6/95	0	18	5	2 MON
	15/4W	36G 2	2101 Park Blvd	Oakland	Shell Oil Products Co		9/19/1997	122247351	37801069	1 15/4W 36G	0	0 OAK	6/95	0	18	0	2 MON
	15/4W	36G 3	2101 Park Blvd	Oakland	Shell Oil Products Co		9/19/1997	122247351	37801069	1 15/4W 36G	0	0 OAK	6/95	0	18	5	2 MON
	15/4W	36H 1	BROOKLYN & HADDON	Oakland	PACIFIC GAS AND ELECTRIC		12/12/1984	122244842	37802096	9 15/4W 36H	2712	0 OAK	6/76	0	120	0	0 CAT
	15/3W	30L 1	E/O PALOMA & CALMAR	Piedmont	PG&E		7/23/1984	122234493	37812736	8 15/3W 30L	2167	0 PIE	1/75	0	120	0	0 CAT
	15/3W	30M 1	800 York St	Oakland	BLT - Baymark		4/8/1993	122242121	37813179	1 15/3W 30M	8367	0 OAK	2/93	0	37	0	2 DES
	15/3W	31C 1	MACARTHUR BLVD E/O ALMA	Oakland	EBMUD		7/23/1984	122235028	37805511	9 15/3W 31C	2168	0 OAK	5/75	0	50	0	0 CAT
97WR175	15/3W	31C 2	Park Blvd && MacArthur	Oakland	EBMUD		3/29/1998	122232883	37803796	1 15/3W 31C	0	0 OAK	1/98	0	133	0	5 CAT
97WR173	15/3W	31D 1	Athol Av && MacArthur Blv	Oakland	EBMUD		3/29/1998	122240183	37806896	1 15/3W 31D	0	0 OAK	1/98	0	130	0	5 CAT
	15/3W	31E	2419 PARK BLVD	Oakland	WILLIAM WONG		6/3/1988	122242448	37802101	0 15/3W 31E	2169	0 OAK	Jul-86	41	22	11	0 BOR
	15/3W	31E 2	2833 Park Blvd	Oakland	King, Shapiro, Mittelman		3/6/1992	122237977	37802929	1 15/3W 31E	7331	0 OAK	Nov-91	0	35	21	4 MON
	15/3W	31E 2	2833 Park Blvd	Oakland	King, Shapiro, Mittelman		3/6/1992	122237977	37802929	1 15/3W 31E	7332	0 OAK	Nov-91	0	34	22	4 MON
	15/3W	31E 3	2833 Park Blvd	Oakland	King, Shapiro, Mittelman		3/6/1992	122237977	37802929	1 15/3W 31E	7333	0 OAK	Nov-91	0	42	37	4 MON



**FIGURE 3**  
SENSITIVE RECEPTOR MAP

76 SERVICE STATION NO. 5325  
3220 LAKESHORE DRIVE  
OAKLAND, CALIFORNIA



PROJECT NO. 140255325	PREPARED BY EW	DRAWN BY JH
DATE 9/13/13	REVIEWED BY DD	FILE NAME 5325-SRS





Completion Reports for wells located within 0.5 miles of the site. The purpose of the search was to identify all water supply, domestic, municipal, and irrigation wells which have the potential to be affected by a petroleum hydrocarbon release at the site. The water supply well data provided by the ACPWA are included as **Appendix B**. No water supply, domestic, municipal, or irrigation wells were found within a half mile radius in the data provided by the ACPWA or the DWR. According to EBMUD, they do not operate any water supply wells within a half mile radius of the site.

### **3.2 Web-Based Receptor Search**

Using Google Maps, Antea Group conducted a web-based search to identify any sensitive receptors (schools, churches, day care facilities, elderly care facilities, hospitals, surface water bodies, etc.) within a 0.5 mile radius of the site which have the potential to be affected by a petroleum hydrocarbon release at the site. Antea Group identified the following sensitive receptors during the web-based search (all distances are approximate):

- A. Lakeshore Preschool (590 feet north-northeast)
- B. Khadivi Azam (860 feet east-southeast)
- C. Gymboree Play & Music (890 feet northeast)
- D. Lakeview Elementary School (890 feet west-northwest)
- E. Lakeshore Avenue Baptist Church (1,190 feet east-northeast)
- F. Lakeshore Children's Center (1,200 feet northeast)
- G. Lake Merritt (1,300 feet west-southwest)
- H. Resurrection Lutheran Church (1,800 feet west-northwest)
- I. Saint Vartans Armenian Apostolic Church (2,050 feet southeast)
- J. Bamboo Grove: A Montessori Pre-School (2,235 feet north-northeast)
- K. Grand Lake Montessori (2530 feet northwest)

Receptor locations within the survey area are shown on **Figure 3**. Based on the above identified receptors distance from the site, location up-gradient or cross-gradient to the site, and the extent of the impacted groundwater plume, they are not anticipated to be affected by a petroleum hydrocarbon release at the site.

### **3.3 Site Reconnaissance**

Antea Group conducted a site reconnaissance on August 15, 2013 to verify any receptors reported during the web-based search, and identify any receptors not reported during the web-based search. Antea Group was able to verify the location of all the receptors reported above (**Section 3.2**).

Based on the distance from the site, location with respect to the site and the prevailing groundwater flow direction, northwest (**Figure 4**), the potential sensitive receptors identified above and in **Section 3.2** do not appear to be affected by soil, soil vapor, or groundwater impact due to a release at the site.

# ATTACHMENT 7

**TABLE 1**  
**HISTORICAL SOIL ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 Lakeshore Avenue**

Sample ID	Date	Sample Depth (feet)	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	TPH-DRO (mg/kg)	MTBE (mg/kg)
<b>GeoStrategies Inc. 1990</b>									
U-A-5	5/24/90	5	18	0.12	0.069	0.52	0.46	--	--
U-A-7	5/24/90	7	2,100	1.3	27	32	190	--	--
U-A-12.5	5/24/90	12.5	260	0.28	2.4	3	18	--	--
U-B-4.5	5/24/90	4.5	3,100	2.6	44	46	250	--	--
U-B-8.5	5/24/90	8.5	1,600	5.3	31	22	120	--	--
U-B-10.5	5/24/90	10.5	2	0.014	0.11	0.045	0.21	--	--
U-C-4.5	5/24/90	4.5	7,500	13	250	160	990	--	--
U-C-7.5	5/24/90	7.5	86	0.46	3.2	1.7	10	--	--
U-C-10	5/24/90	10	3	.031	0.13	0.08	0.38	--	--
UX-5	6/19/90	9.5	<1.0	<0.005	<0.005	<0.005	<0.005	--	--
UX-6	6/20/90	14	<1.0	<0.005	<0.005	<0.005	0.013	--	--
UX-7	6/20/90	14	<1.0	0.008	0.006	0.008	0.016	--	--
UX-8	6/20/90	7.0	<1.0	<0.005	<0.005	<0.005	0.022	--	--
UX-9	6/20/90	14	<1.0	<0.005	<0.005	<0.005	<0.005	--	--
UX-10	6/20/90	6.5	1,300	1.7	2.1	26	100	--	--
UX-11	6/20/90	12.5	<1.0	<0.005	<0.005	<0.005	<0.005	--	--
UX-12	6/20/90	13	<1.0	0.044	0.008	<0.005	0.01	--	--
UX-13	6/20/90	6.5	<1.0	0.021	<0.005	<0.005	<0.005	--	--
UX-14	6/20/90	7.5	2,800	11	11	63	320	--	--
UX-15	6/20/90	8.0	12	1.1	0.91	0.93	5.2	--	--
UWO-1	6/22/90	unknown	<2.5	<0.026	<0.026	<0.026	<0.05	<2	--
UWO-2	6/22/90	unknown	<2.5	<0.006	<0.0006	<0.026	<0.026	7	--
UT-4	6/25/90	3.5	60	1.1	1.5	2.0	11	--	--
UT-5	6/25/90	3.5	28	1.7	0.76	1.3	4.4	--	--
UT-6	6/25/90	3.0	12	0.62	1.6	0.52	1.9	--	--
UT-7	6/25/90	3.5	<2.5	<0.025	<0.025	<0.025	<0.05	--	--
UT-8	6/25/90	3.5	<2.5	<0.025	<0.025	<0.025	<0.05	--	--
UT-9	6/25/90	4.0	14	<0.026	<0.026	<0.026	0.05	--	--
U1-6.5	9/24/90	6.5	480	4.5	29	14	74	--	--
U1-11.5	9/24/90	11.5	1.4	0.65	0.019	0.015	0.051	--	--
U2-6.0	9/24/90	6.0	110	<0.2	1.6	2.4	12	--	--
U2-11.5	9/24/90	11.5	<1.0	0.007	<0.005	<0.005	0.005	--	--
U2-21.5	9/24/90	21.5	<1.0	<0.007	<0.007	<0.007	<0.007	--	--
U3-6.5	9/24/90	6.5	<1.0	<0.005	<0.005	<0.005	<0.005	--	--
U3-11.5	9/24/90	11.5	<1.0	<0.005	<0.005	<0.005	<0.005	--	--
<b>GeoStrategies Inc. 1994</b>									
U-4-4.0	6/2/94	4.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--
U-4-9.5	6/2/94	9.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--
U-5-6.0	6/2/94	6.0	400	1.9	12	9.9	43	--	--
U-6-5.5	6/2/94	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--

**TABLE 1**

**HISTORICAL SOIL ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 Lakeshore Avenue**

Sample ID	Date	Sample Depth (feet)	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	TPH-DRO (mg/kg)	MTBE (mg/kg)
<b>GeoStrategies Inc. 1996</b>									
WOT-8.0	11/15/96	8.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	1.5	<0.025
PL1-3.5	11/15/96	3.5	19	0.0061	0.018	0.20	0.32	--	0.79
PL2-3.5	11/15/96	3.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	<0.025
PL3-3.5	11/15/96	3.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	<0.025
PL4-3.5	11/15/96	3.5	800	1.8	9.0	12	64	--	23
PL4-5.0	11/15/96	5.0	220	3.6	17	5.3	29	--	1.7
PL5-3.5	11/15/96	3.5	49	0.20	0.30	0.71	3.6	--	0.66
PL5-5.0	11/15/96	5.0	450	2.3	16	9.2	51	--	3.7
PL6-3.5	11/15/96	3.5	72	0.18	0.83	1.2	7.9	--	0.63
PL6-5.0	11/15/96	5.0	270	0.86	10	6.0	39	--	2.3
<b>GeoStrategies Inc. 1997</b>									
U-D-5.5	6/23/97	5.5	450	<0.12	1.2	9.8	35	--	1.1
U-E-6.5	6/23/97	6.5	29	0.16	0.034	<0.025	0.050	--	<0.12
<b>TRC 2006</b>									
C-1 @ 5'	4/12/06	5	4,600	<9.7	<9.7	76	340	--	<9.7
C-1 @ 10'	4/12/06	10	<0.23	<0.0045	<0.0045	<0.0045	<0.0091	--	0.029
C-2 @ 7'	4/12/06	7	1.2	<0.0050	<0.0050	<0.0050	<0.010	--	0.16
C-3 @ 5'	4/12/06	5	<47	<0.94	<0.94	<0.94	<1.9	--	1.9
<b>Notes:</b>									
TPH-GRO = total petroleum hydrocarbons as gasoline by EPA Method 8015									
TPH-DRO = total petroleum hydrocarbons as diesel by EPA Method 8015									
BTEX = benzene, toluene, ethyl-benzene, total xylenes by EPA Method 8260B									
MTBE = methyl tertiary butyl ether by EPA Method 8260B									
-- = not analyzed									
mg/kg = milligrams per kilogram									
< = Below the laboratory's indicated reporting limit									

TABLE 3

SOIL ANALYSIS DATA

SAMPLE NO	SAMPLE DATE	ANALYSIS DATE	TPH (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)	TRPH (PPM)	TPH-D (PPM)	PCB (PPM)	PCP (PPM)	Cd (PPM)	Cr (PPM)	Pb (PPM)	Zn (PPM)
UNO-1	22-Jun-90	09-Jul-90	<2.5	<0.026	<0.026	<0.026	<0.05	<50	<2	NA	NA	NA	NA	NA	NA
UNO-2	22-Jun-90	09-Jul-90	<2.5	<0.006	<0.0006	<0.006	<0.006	<50	7	ND	ND	5.6	28	7.9	33

### 3.0 FIELD METHODS AND PROCEDURES

Soil samples were collected from the UGST excavation and piping trenches using a drive-hammer hand sampler fitted with precleaned brass tubes. Some of the samples were collected directly from freshly exposed excavation surfaces while other samples were collected from soil brought to the surface in the bucket of the excavator. Approximately two to four inches of soil was scraped from the exposed surface immediately prior to collecting the soil sample. Approximate soil sample locations are shown on Plates 3 and 4. The brass tubes were covered on both ends with aluminum foil, covered with plastic end caps, labeled, and placed in a cooler with blue ice. The samples were entered onto a Chain-of-Custody form and brought to an on-site mobile laboratory operated by National Environmental Testing (NET Pacific) of Santa Rosa, California. Selected samples were transported under Chain-of-Custody to International Technology (IT) Analytical Services of San Jose, California. All analyses were performed by State-certified environmental laboratories.

Soil samples were analyzed for Total Petroleum Hydrocarbons calculated as Gasoline (TPH-Gasoline) according to EPA Method 8015 (Modified) and Benzene, Toluene, Ethylbenzene, and Xylenes according to EPA Method 8020. Soil samples collected from around the waste oil tank were analyzed for TPH-Gasoline, BTEX, TPH-Diesel according to EPA Method 8015 (Modified) and Total Recoverable Petroleum Hydrocarbons according to EPA Method 418.1. The sample collected from underneath the waste oil tank was also analyzed for Volatile Organic Compounds (VOCs) according to EPA Method 8240.

The detection of TPH-Diesel in sample UWO-2 prompted additional analyses to be performed. These analyses included polychlorinated biphenyls (PCBs), Semi-Volatile Organics according to EPA Method 8270, lead according to EPA Method 7421, and cadmium, chromium, and zinc according to EPA Method 6010.

Excavated soils were stockpiled and covered with plastic visqueen sheets until soil could be removed from the site. Approximately 250 yards of sandy tank backfill material were aerated on-site to reduce hydrocarbon levels prior to disposal. Additional soil removal information will be provided in a separate report.

#### 4.0 RESULTS

Soil samples collected from the base and sidewalls of the UGST excavation contained less than 100 ppm TPH-Gasoline (most of the samples were reported as none detected or ND) with the exception of UX-10 and UX-14 (Table 1). These two samples contained 1,300 and 2,800 ppm TPH-Gasoline, respectively. Due to the concentrations of TPH-Gasoline detected in samples UX-10 and UX-14 the sidewalls were overexcavated. The sidewalls were resampled (UX-13 and UX-15) and analyzed. UX-13 was reported as ND for TPH-Gasoline and UX-15 contained 12 ppm TPH-Gasoline.

Piping trench samples UT-4, UT-5, UT-6, and UT-9 contained TPH-Gasoline concentrations ranging from 12 to 60 ppm. Samples UT-7 and UT-8 did not contain detectable levels of TPH-Gasoline (Table 2).

Waste oil soil sample UWO-1 did not contain detectable levels of TPH-Gasoline, TPH-Diesel, BTEX, or Total Recoverable Petroleum Hydrocarbons. Sample UWO-2 contained TPH-Diesel at a concentration of 7 ppm. TPH-Gasoline and Total Recoverable Petroleum Hydrocarbons were not detected. Sample UWO-2 also contained acetone at a concentration of 0.025 ppm. PCBs, pentachlorophenol (PCP), and creosote were not detected in sample UWO-2. Cadmium, chromium, lead, and zinc were detected at concentrations of 5.6, 28, 7.9, and 33 ppm, respectively (Table 3).

Certified analytical reports, Chain-of-Custody documents are presented in Appendix A.

#### 5.0 CONCLUSIONS

- o The soil analytical results indicate that soils with elevated concentrations (>100 ppm) of TPH-Gasoline and BTEX appear to have been removed from the vicinity of the UGST. Soil samples collected from sidewalls and the bottom of the excavation did not contain concentrations of TPH-Gasoline greater than 100 ppm (Table 1).
- o Piping trench soil sample analyses indicate that soils with greater than 100 ppm TPH-Gasoline were excavated in the piping trench vicinity.

IT ANALYTICAL SERVICES  
SAN JOSE, CA

Company: Gettler-Ryan

Date: 07/13/90

Client Work ID: GR7814, Unocal SS# 5325

Work Order: T0-00-255

TEST NAME: Petroleum Hydrocarbons

SAMPLE ID: UWO-1

SAMPLE DATE: 06/22/90

LAB SAMPLE ID: T006255-01

SAMPLE MATRIX: solid

RECEIPT CONDITION: Cool

RESULTS in Milligrams per Kilogram:

	METHOD	EXTRACTION DATE	ANALYSIS DATE
BTEX	8020	06/28/90	07/09/90
Low Boiling Hydrocarbons	Mod.8015	06/28/90	07/09/90
High Boiling Hydrocarbons	Mod.8015	07/05/90	07/09/90
Recoverable Hydrocarbons	418.1	07/04/90	07/09/90

PARAMETER	DETECTION LIMIT	DETECTED
Low Boiling Hydrocarbons calculated as Gasoline	2.5	None
BTEX		
Benzene	0.026	None
Toluene	0.026	None
Ethylbenzene	0.026	None
Xylenes (total)	0.05	None
High Boiling Hydrocarbons calculated as Diesel	2.	None
Total Recoverable Petroleum Hydrocarbons	50.	None



IT ANALYTICAL SERVICES  
SAN JOSE, CA

Company: Gettler-Ryan

Date: 07/13/90

Client Work ID: GR7814, Unocal SS# 5325

Work Order: T0-06-255

TEST NAME: Vol. Organics EPA 624/8240

SAMPLE ID: UWO-2

SAMPLE DATE: 06/22/90

LAB SAMPLE ID: T006255-02

SAMPLE MATRIX: solid

RECEIPT CONDITION: Cool

EXTRACTION DATE: N/A

ANALYSIS DATE: 06/30/90

RESULTS in Milligrams per Kilogram:

PARAMETER	DETECTION		PARAMETER	DETECTION	
	LIMIT	DETECTED		LIMIT	DETECTED
Chloromethane	0.012	None	cis-1,3-Dichloropropene	0.006	None
Bromomethane	0.012	None	Trichloroethene	0.006	None
Vinyl Chloride	0.012	None	Chlorodibromomethane	0.006	None
Chloroethane	0.012	None	1,1,2-Trichloroethane	0.006	None
Dichloromethane	0.006	None	Benzene	0.006	None
Acetone	0.012	0.025	trans-1,3-Dichloropropene	0.006	None
Carbon Disulfide	0.006	None	Bromoform	0.006	None
1,1-Dichloroethene	0.006	None	4-Methyl-2-Pentanone	0.012	None
1,1-Dichloroethane	0.006	None	2-Hexanone	0.012	None
1,2-Dichloroethene (total)	0.006	None	Tetrachloroethene	0.006	None
Chloroform	0.006	None	1,1,2,2-Tetrachloroethane	0.006	None
1,2-Dichloroethane	0.006	None	Toluene	0.006	None
2-Butanone	0.012	None	Chlorobenzene	0.006	None
1,1,1-Trichloroethane	0.006	None	Ethylbenzene	0.006	None
Carbon Tetrachloride	0.006	None	Styrene	0.006	None
Vinyl Acetate	0.012	None	Xylenes (total)	0.006	None
Bromodichloromethane	0.006	None	Acrolein	0.012	None
1,2-Dichloropropane	0.006	None	Acrylonitrile	0.012	None
SURROGATES	LIMITS	% REC			
1,2-Dichloroethane-d4	70-121	79.			
Toluene-d8	81-117	103.			
4-Bromofluorobenzene	74-121	99.			

IT ANALYTICAL SERVICES  
SAN JOSE, CA

Company: Gettler-Ryan

Date: 07/13/90

Client Work ID: GR7814 Unocal SS# 5325

Work Order: T0-06-255

## TEST NAME: Petroleum Hydrocarbons

SAMPLE ID: UWO-2

SAMPLE DATE: 06/22/90

LAB SAMPLE ID: T006255-02

SAMPLE MATRIX: solid

RECEIPT CONDITION: Cool

## RESULTS in Milligrams per Kilogram:

	METHOD	EXTRACTION DATE	ANALYSIS DATE
Low Boiling Hydrocarbons	Mod.8015	06/28/90	07/06/90
High Boiling Hydrocarbons	Mod.8015	07/05/90	07/09/90
Recoverable Hydrocarbons	418.1	07/04/90	07/04/90

PARAMETER	DETECTION LIMIT	DETECTED
Low Boiling Hydrocarbons calculated as Gasoline	2.5	None
High Boiling Hydrocarbons calculated as Diesel	2.	7.
Total Recoverable Petroleum Hydrocarbons	50.	None

Company: Gettler-Ryan

Date: 07/13/90

Client Work ID: GR7814, Unocal SS# 5325

Work Order: TO-06-255

TEST CODE 8240 TEST NAME Vol. Organics EPA 624/8240

The method of analysis for volatile organics is taken from E.P.A. Methods 624 and 8240. Water samples and low-level soil samples are analyzed directly using the purge and trap technique. Medium-level soil samples are extracted with methanol and a portion of the extract is analyzed using the purge and trap technique. Final detection is by gas chromatography/mass spectrometry.

Results for organic chemical parameters in soils have been corrected for moisture content and are reported on a dry soil basis unless noted otherwise. Results for inorganic chemical parameters have not been corrected for moisture content.

TEST CODE TPHRS TEST NAME EPA 418.1 in Soil

The method of analysis for total recoverable petroleum hydrocarbons is taken from E.P.A. Method 418.1. The sample is extracted with repeated portions of solvent and the extract is treated with silica gel to remove polar compounds. The extract is examined using infrared spectroscopy.

TEST CODE TPHN TEST NAME TPH High Boiling by 8015

The method of analysis for high boiling hydrocarbons involves extracting the samples with solvent and examining the extracts by gas chromatography using a flame ionization detector.

TEST CODE TPHV TEST NAME TPH Gasoline by 8015

The method of analysis for low boiling hydrocarbons is taken from E.P.A. Methods 8015, 8020 and 5030. The sample is examined using the purge and trap technique. Final detection is by gas chromatography using a flame ionization detector as well as a photoionization detector. The result for total low boiling hydrocarbons is calculated as gasoline.

TEST CODE TPHVB TEST NAME TPH Gas, BTEX by 8015/8020

The method of analysis for low boiling hydrocarbons is taken from E.P.A. Methods 8015, 8020 and 5030. The sample is examined using the purge and trap technique. Final detection is by gas chromatography using a flame ionization detector as well as a photoionization detector. The result for total low boiling hydrocarbons is calculated as gasoline and includes benzene, toluene, ethylbenzene and xylenes.

IT ANALYTICAL SERVICES  
SAN JOSE, CA

Company: Gettler-Ryan

Date: 07/23/90

ADDITIONAL ANALYSIS

Client Work ID: GR7814, Unocal SS# 5325

Work Order: T0-06-255

TEST NAME: EPA 8270

SAMPLE ID: UWO-2

SAMPLE DATE: 06/22/90

LAB SAMPLE ID: T006255-02

SAMPLE MATRIX: solid

RECEIPT CONDITION: Cool

EXTRACTION DATE: 07/16/90

ANALYSIS DATE: 07/19/90

RESULTS in Milligrams per Kilogram:

PARAMETER	DETECTION LIMIT	DETECTED
Naphthalene	0.43	None
2-Methylnaphthalene	0.43	None
Acenaphthylene	0.43	None
Acenaphthene	0.43	None
Fluorene	0.43	None
Pentachlorophenol	2.2	None
Phenanthrene	0.43	None
Anthracene	0.43	None
Fluoranthene	0.43	None
Pyrene	0.43	None
Benzo(a)anthracene	0.43	None
Chrysene	0.43	None
Benzo(b)fluoranthene	0.43	None
Benzo(k)fluoranthene	0.43	None
Benzo(a)pyrene	0.43	None
Indeno(1,2,3-cd)pyrene	0.43	None
Dibenzo(a,h)anthracene	0.43	None
Benzo(g,h,i)perylene	0.43	None
Creosote	4.3	None

SURROGATES	LIMITS	% REC
Nitrobenzene-d5	23-120	83.
2-Fluorobiphenyl	30-115	68.
Terphenyl-d14	18-137	71.
Phenol-d5	24-113	95.
2-Fluorophenol	25-121	91.
2,4,6-Tribromophenol	19-122	98.

IT ANALYTICAL SERVICES  
SAN JOSE, CA

Company: Gettler-Ryan

Date: 07/23/90

ADDITIONAL ANALYSIS

Client Work ID: GR7814, Unocal SS# 5325

Work Order: T0-06-255

TEST NAME: Metals Analysis

SAMPLE ID: UWO-2

SAMPLE DATE: 06/22/90

LAB SAMPLE ID: T006255-02

SAMPLE MATRIX: aqueous

RECEIPT CONDITION: Cool

RESULTS in Milligrams per Liter:

PARAMETER	METHOD	DETECTION LIMIT	DETECTED
Cadmium	6010	0.2	5.6
Chromium	6010	0.5	28.
Lead	7421	0.2	7.9
Zinc	6010	0.5	33.

IT ANALYTICAL SERVICES  
SAN JOSE, CA

Company: Gettler-Ryan

Date: 07/23/90

ADDITIONAL ANALYSIS

Client Work ID: GR7814, Unocal SS# 5325

Work Order: T0-06-255

TEST NAME: PCB

SAMPLE ID: UWO-2

SAMPLE DATE: 06/22/90

LAB SAMPLE ID: T006255-02

SAMPLE MATRIX: solid

RECEIPT CONDITION: Cool

EXTRACTION DATE: 07/13/90

ANALYSIS DATE: 07/13/90

RESULTS in Milligrams per Kilogram:

PARAMETER	DETECTION LIMIT	DETECTED
PCB 1016	0.03	None
PCB 1221	0.03	None
PCB 1232	0.03	None
PCB 1242	0.03	None
PCB 1248	0.03	None
PCB 1254	0.03	None
PCB 1260	0.03	None
PCB 1262	0.03	None
PCB 1268	0.03	None

Gettler - Ryan Inc.

TO-06-255  
ENVIRONMENTAL DIVISION

0613 Chain of Custody

COMPANY

UNOCAL

JOB NO.

7814

JOB LOCATION

3220 Lake Shore

CITY

Oakland

PHONE NO.

AUTHORIZED

John Uterfal

DATE

6-25

P.O. NO.

SAMPLE ID	NO. OF CONTAINERS	SAMPLE MATRIX	DATE/TIME SAMPLED	ANALYSIS REQUIRED	SAMPLE CONDITION LAB ID
UWO-1	1	Soil	6-22-90	TPH(gas), BTX, TPH(diesel), 418.1	Ⓢ Cd
UWO-2	1	Soil	6-22-90	TPH(gas, diesel), 8240, 418.1	↓

For UWO-2: If any of the above are detected, analyse sample for Cd, Cr, Pb, Zn, and 8270 (PCB, PNA, PCP, creosote)

RELINQUISHED BY:

Matt Janderick 6-25-90

RECEIVED BY:

Stephen Carter 6-25-90 16:31

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

Stephen Carter 6-25-90 17:16

RECEIVED BY LAB:

Tom [Signature] 6/25/90 17:16

DESIGNATED LABORATORY:

DHS #:

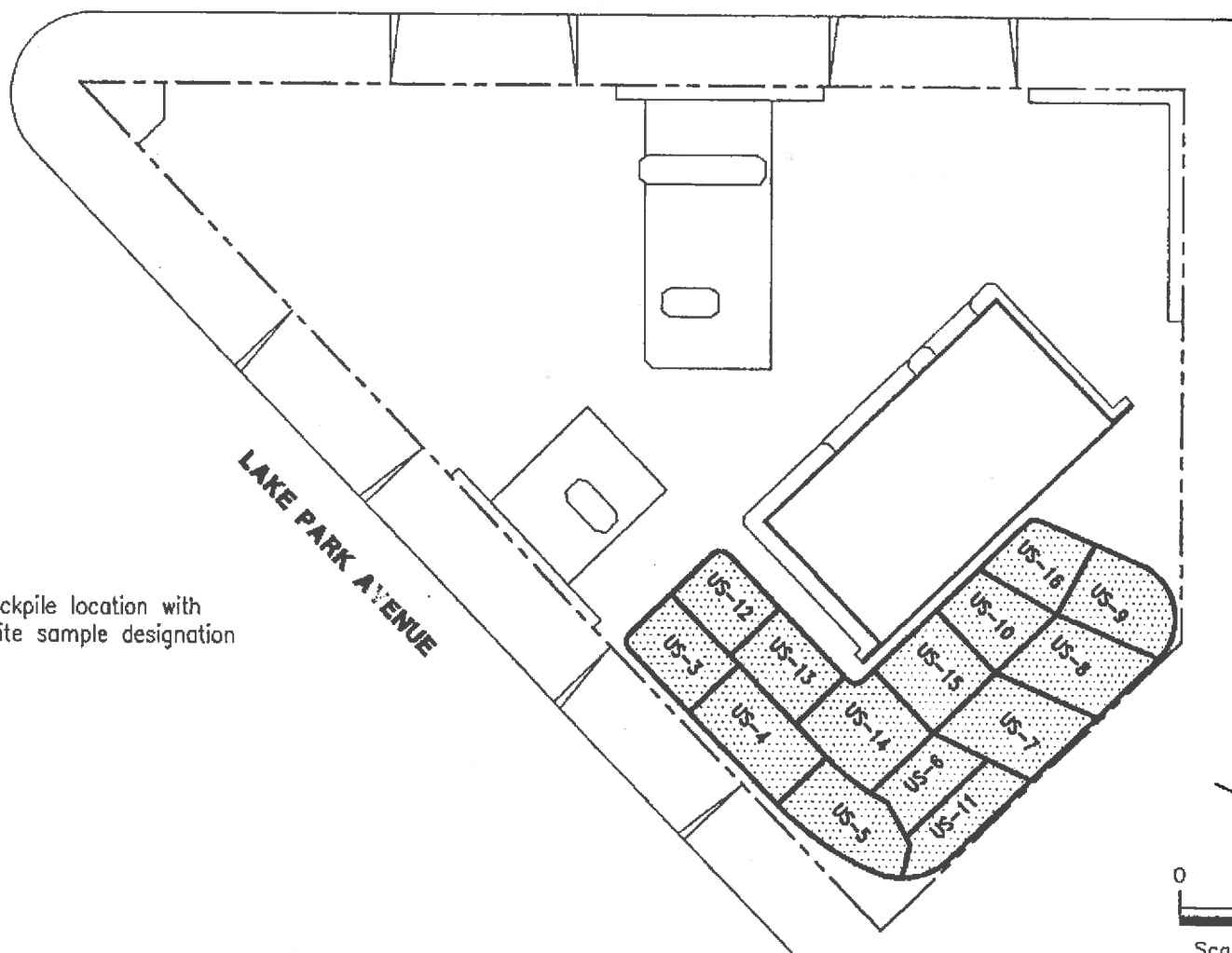
REMARKS:

Normal TAT

DATE COMPLETED

FOREMAN

LAKESHORE AVENUE



**EXPLANATION**

**US-1** Soil stockpile location with composite sample designation



GeoStrategies Inc.

**STOCKPILE SOIL SAMPLE LOCATION MAP**  
UNOCAL Service Station #5325  
3220 Lakeshore Avenue  
Oakland, California

PLATE

**3**

JOB NUMBER  
7814

REVIEWED BY RG/CEG  
*CEG*

DATE  
10/90

REVISED DATE



TABLE 1

## SOIL ANALYSIS DATA

SAMPLE NO	SAMPLE DATE	ANALYSIS DATE	TPH (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)
US-1 a-d	20-Jun-90	03-Jul-90	1800.	0.740	21.	29.	190.
US-2 a-d	20-Jun-90	03-Jul-90	1100.	<0.500	11.	15.	94.
US-3 a-d	20-Jun-90	03-Jul-90	1100.	<0.300	16.	20.	140.
US-4 a-d	20-Jun-90	03-Jul-90	1600.	1.8	40.	29.	190.
US-5 a-d	20-Jun-90	03-Jul-90	1200.	2.0	37.	22.	160.
US-6 a-d	20-Jun-90	25-Jun-90	1800.	6.6	90.	53.	320.
US-7 a-d	20-Jun-90	03-Jul-90	2800.	2.2	59.	36.	350.
US-8 a-d	20-Jun-90	03-Jul-90	510.	0.4	10.	10.	83.
US-9 a-d	20-Jun-90	03-Jul-90	1600.	<0.3	2.7	6.1	190.
US-10 a-d	20-Jun-90	03-Jul-90	3400.	<0.3	56.	46.	400.
US-11 a-d	22-Jun-90	27-Jun-90	1700.	3.1	65.	58.	320.
US-12 a-d	20-Jun-90	03-Jul-90	280.	0.66	9.1	4.9	45.
US-13 a-d	21-Jun-90	03-Jul-90	870.	<0.3	1.8	1.5	82.
US-14 a-d	21-Jun-90	03-Jul-90	1700.	1.4	33.	28.	210.
US-15 a-d	21-Jun-90	03-Jul-90	1200.	0.36	2.7	2.4	160.
US-16 a-d	21-Jun-90	03-Jul-90	450.	0.35	0.48	1.3	30.

Report No. 7814-4

TABLE 2

## AERATED SOIL ANALYSIS DATA

SAMPLE NO.	SAMPLE DATE	ANALYSIS DATE	TPH (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)	ORGANIC LEAD (PPM)
US-17 a-d	18-Jul-90	19-Jul-90	4.7	<0.02	0.03	0.04	0.21	N/A
US-18 a-d	18-Jul-90	19-Jul-90	13.	<0.04	0.05	<0.04	0.22	<1.0
US-19 a-d	24-Jul-90	26-Jul-90	24.	<0.08	<0.08	<0.08	0.12	N/A
US-20 a-d	24-Jul-90	26-Jul-90	93.	<0.2	<0.2	<0.2	<0.2	N/A
US-21 a-d	02-Aug-90	03-Aug-90	60.	<0.20	<0.20	<0.20	0.66	N/A

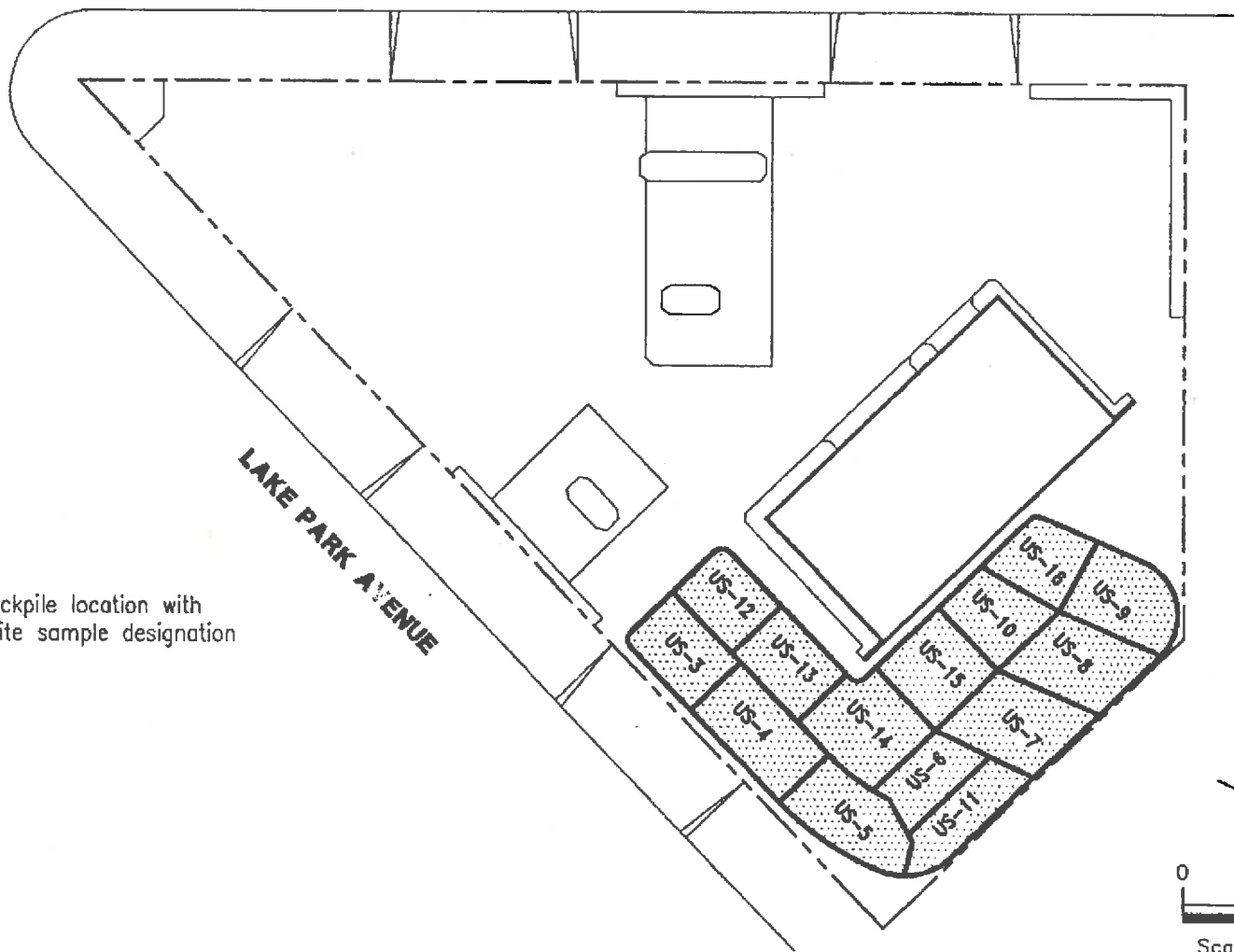
PPM = Parts Per Million

N/A = Not Analyzed


Note: These results are from aerated soil samples.

Report No. 7814-4

LAKESHORE AVENUE



EXPLANATION

 Soil stockpile location with composite sample designation



GeoStrategies Inc.

STOCKPILE SOIL SAMPLE LOCATION MAP  
UNOCAL Service Station #5325  
3220 Lakeshore Avenue  
Oakland, California

PLATE

**3**

JOB NUMBER  
7814

REVIEWED BY RG/CEG  
*UMP OEG 12/92*

DATE  
10/90

REVISED DATE

**TABLE 1**  
**Well Construction Details**  
**76 Service Station No. 5325**  
**3220 Lakeshore Drive**  
**Oakland, California**

Well I.D.	Construction Date	Elevation (TOC feet above MSL)	Conductor Boring Depth (feet bgs)	Conductor Borehole Diameter (inches)	Conductor Diameter (inches)	Boring Depth (feet bgs)	Borehole Diameter (inches)	Casing Diameter (inches)	Casing Material	Slot Size (inches)	Screened Interval (feet bgs)	Filter Pack Interval (feet bgs)	Bentonite Seal Interval (feet bgs)	Cement Seal Interval (feet bgs)	Comments
U-1	09/24/90		--	--	--	27	8	3	Sch 40 PVC	0.020	5-20	4-20	3-4, 20-23	1.5-3	
U-2	09/24/90		--	--	--	21.5	8	3	Sch 40 PVC	0.020	5-20	4-20	3-4	1.5-3	
U-3	09/24/90		--	--	--	21.5	8	3	Sch 40 PVC	0.020	5-20	4-20	3-4	1.5-3	
U-4	06/02/94		--	--	--	25	10	4	Sch 40 PVC	0.020	5-20	4-20	3.5-4, 20-25	1.5-3.5	
U-5	06/02/94		--	--	--	22	10	4	Sch 40 PVC	0.020	4.5-20	4-20	3.5-4, 20-21.5	1.5-3.5	
U-6	06/02/94		--	--	--	25	8	2	Sch 40 PVC	0.020	5-24	4-24	3.5-4, 24-24.5	1.5-4	
C-1	04/12/06		--	--	--	15	8	2	Sch 80 PVC	0.010	9.5-12	8-5-15	6.5-8.5	1-6.5	
C-2	04/12/06		--	--	--	17	8	2	Sch 80 PVC	0.010	11.5-14	10.5-17	8.5-10.5	1-8.5	
C-3	04/12/06		--	--	--	17	8	2	Sch 80 PVC	0.010	14.5-17	13.5-17	11.5-13.5	1-8.5	

Notes:

bgs = below ground surface

TOC = top of casing

MSL = mean sea level

-- = Not applicable

Elevations are in US survey feet, Vertical Datum is NAD 88

TABLE 3  
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA  
76 SERVICE STATION NO. 5325  
3220 LAKESHORE AVENUE  
OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPH (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	
U-1	8/10/1990	--	--	--	--	690	38	75	8.6	130	--	--	--	--	--	--	--	--	--	
U-1	1/7/1991	--	--	--	--	250	22	16	4.2	17	--	--	--	--	--	--	--	--	--	
U-1	4/1/1991	--	--	--	--	160	13	8.6	1.0	15	--	--	--	--	--	--	--	--	--	
U-1	7/3/1991	--	--	--	--	140	21	4.3	0.36	17	--	--	--	--	--	--	--	--	--	
U-1	10/9/1991	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	
U-1	2/12/1992	--	--	--	--	250	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	
U-1	5/5/1992	--	--	--	--	230	1.2	ND	ND	ND	--	--	--	--	--	--	--	--	--	
U-1	6/11/1992	--	--	--	--	1,000	80	1.4	6.7	41	--	--	--	--	--	--	--	--	--	
U-1	8/20/1992	--	--	--	--	400	1.0	ND	ND	0.6	--	--	--	--	--	--	--	--	--	
U-1	2/22/1993	--	--	--	--	34,000	1,400	5,500	910	7,300	--	--	--	--	--	--	--	--	--	
U-1	5/7/1993	--	--	--	--	8,700	600	240	650	3,300	--	--	--	--	--	--	--	--	--	
U-1	8/8/1993	--	--	--	--	4,900	79	ND	832	270	--	--	--	--	--	--	--	--	--	
U-1	11/16/1993	5.32	8.60	NP	-3.28	690	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	
U-1	2/16/1994	5.32	8.53	NP	-3.21	6,800	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	
U-1	6/22/1994	8.46	8.39	NP	0.07	200	ND	ND	5.9	21	--	--	--	--	--	--	--	--	--	
U-1	9/22/1994	8.46	8.65	NP	-0.19	6,100	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	
U-1	12/24/1994	8.46	8.03	NP	0.43	50,000	2,500	9,700	2,400	17,000	--	--	--	--	--	--	--	--	--	
U-1	3/25/1995	8.46	7.71	0.36	1.02	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	6/21/1995	8.46	9.30	0.20	-0.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	9/19/1995	8.46	9.28	0.39	-0.53	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	12/19/1995	8.46	8.97	0.02	-0.50	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	3/18/1996	8.46	8.25	NP	0.21	27,000	ND	2,300	1,400	11,000	4,900	--	--	--	--	--	--	--	--	--
U-1	6/27/1996	8.46	7.92	NP	0.54	120,000	540	4,300	2,600	26,000	ND	--	--	--	--	--	--	--	--	--
U-1	9/26/1996	8.46	9.10	0.02	-0.63	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	12/9/1996	8.46	6.88	0.03	1.60	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	3/14/1997	8.46	9.02	0.55	-0.15	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	6/30/1997	8.46	8.40	0.01	0.07	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	9/19/1997	8.46	8.56	0.02	-0.09	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	12/12/1997	8.46	8.57	0.00	-0.11	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	3/3/1998	8.46	8.22	0.03	0.26	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
U-1	6/15/1998	8.46	8.36	NP	0.10	52,000	ND	900	1,800	13,000	ND	--	--	--	--	--	--	--	--	--
U-1	9/30/1998	8.46	8.93	NP	-0.47	1,000,000	ND	2,600	13,000	83,000	4,800	--	--	--	--	--	--	--	--	--
U-1	12/28/1998	8.46	8.56	NP	-0.10	1,100,000	ND	1,600	8,600	71,000	5,700	--	--	--	--	--	--	--	--	--
U-1	3/22/1999	8.46	8.18	NP	0.28	130,000	470	1,100	2,000	28,000	5,700	--	--	--	--	--	--	--	--	--
U-1	6/9/1999	8.46	9.36	NP	-0.90	40,000	230	640	590	13,000	3,500	--	--	--	--	--	--	--	--	--
U-1	9/8/1999	8.46	9.52	NP	-1.06	55,000	217	202	745	14,300	6,890	6,690	--	--	--	--	--	--	--	--
U-1	12/7/1999	8.46	9.67	NP	-1.21	41,200	89.3	ND	385	6,930	15,800	14,700	--	--	--	--	--	--	--	--
U-1	3/13/2000	8.46	8.43	NP	0.03	48,000	490	610	2,400	10,000	22,000	23,000	--	--	--	--	--	--	--	--
U-1	6/21/2000	8.46	9.44	NP	-0.98	37,000	200	ND	1,200	7,200	15,900	20,000	--	--	--	--	--	--	--	--
U-1	9/27/2000	8.46	9.23	NP	-0.82	15,000	92	ND	540	2,800	74,000	83,000	ND	ND	ND	ND	--	ND	--	--
U-1	12/12/2000	8.46	9.36	NP	-0.90	50,000	ND	ND	250	1,900	12,000	15,000	--	--	--	--	--	--	--	--
U-1	3/7/2001	8.46	8.44	NP	0.02	6,220	29.8	10.4	96.3	638	11,200	11,800	ND	ND	ND	ND	--	ND	--	--
U-1	6/6/2001	8.46	9.28	NP	-0.82	5,200	17	ND	69	420	6,500	8,700	ND	ND	ND	ND	--	ND	--	--
U-1	9/24/2001	8.46	9.39	NP	-0.93	4,300	36	<25	65	590	4,400	4,400	<1000	<1000	<1000	<20000	<400000	<1000	<1000	
U-1	12/10/2001	8.46	9.17	NP	-0.71	11,000	220	<100	380	1,500	5,100	5,100	<100	<100	<100	<4000	<8000	<100	<100	
U-1	3/11/2002	8.46	9.43	NP	-0.97	5,500	28	<20	360	690	6,400	6,300	<100	<100	<100	<5000	<25000	<100	<100	
U-1	6/4/2002	8.46	8.31	NP	0.15	4,600	31	<10	240	180	6,500	--	--	--	--	--	--	--	--	--
U-1	9/3/2002	8.46	9.35	NP	-0.89	2,300	<12	<12	<12	68	3,500	4,700	<200	<200	<200	<10000	<50000	<200	<200	
U-1	12/3/2002	8.46	8.18	NP	0.28	<5000	<50	<50	<50	<100	--	4,700	<200	<200	<200	<10000	<50000	<200	<200	
U-1	3/4/2003	8.46	8.28	NP	0.18	8,900	26	<25	400	130	--	5,500	<100	<100	<100	<5000	<25000	<100	<100	



TABLE 3  
 HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA  
 76 SERVICE STATION NO. 5325  
 3220 LAKESHORE AVENUE  
 OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-2	8/6/1993	--	--	--	--	5,600	420	ND	410	670	--	--	--	--	--	--	--	--	--
	11/16/1993	4.53	8.17	NP	-3.64	510	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/16/1994	4.53	7.73	NP	-3.20	980	49	13	2.7	40	--	--	--	--	--	--	--	--	--
	6/22/1994	7.62	7.59	NP	0.03	31,000	2,200	62	1,500	3,500	--	--	--	--	--	--	--	--	--
	9/22/1994	7.62	7.92	NP	-0.30	8,500	29	ND	ND	ND	--	--	--	--	--	--	--	--	--
	12/24/1994	7.62	7.26	NP	0.36	32,000	1,500	890	1,300	5,000	--	--	--	--	--	--	--	--	--
	3/25/1995	7.62	7.01	NP	0.61	170,000	1,900	21,000	4,800	33,000	--	--	--	--	--	--	--	--	--
	6/21/1995	7.62	6.98	NP	0.64	16,000	2,100	ND	1,800	1,700	--	--	--	--	--	--	--	--	--
	9/19/1995	7.62	7.69	NP	-0.07	3,000	610	ND	78	240	--	--	--	--	--	--	--	--	--
	12/19/1995	7.62	7.30	NP	0.32	1,600	140	55	52	270	--	--	--	--	--	--	--	--	--
	3/18/1996	7.62	6.44	NP	1.18	12,000	2,200	ND	1,200	2,200	22,000	--	--	--	--	--	--	--	--
	6/27/1996	7.62	7.40	NP	0.22	28,000	3,400	ND	2,800	3,100	3,000	--	--	--	--	--	--	--	--
	9/26/1996	7.62	7.90	NP	-0.28	5,900	750	ND	ND	ND	18,000	--	--	--	--	--	--	--	--
	12/9/1996	7.62	6.76	NP	0.86	13,000	5,100	290	980	370	2,700	--	--	--	--	--	--	--	--
	3/14/1997	7.62	7.11	0.02	0.53	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/30/1997	7.62	6.19	NP	1.43	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/19/1997	7.62	7.30	NP	0.32	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/12/1997	7.62	6.75	NP	0.87	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/3/1998	7.62	6.36	NP	1.26	80,000	3,000	1,100	820	16,000	16,000	--	--	--	--	--	--	--	--
	6/15/1998	7.62	6.51	NP	1.11	48,000	1,800	330	470	7,900	20,000	--	--	--	--	--	--	--	--
	9/30/1998	7.62	7.17	NP	0.45	60,000	1,300	ND	500	9,700	19,000	--	--	--	--	--	--	--	--
	12/28/1998	7.62	7.05	NP	0.57	63,000	590	160	320	5,600	16,000	--	--	--	--	--	--	--	--
	3/22/1999	7.62	6.82	NP	0.80	28,000	1,100	ND	360	2,900	25,000	--	--	--	--	--	--	--	--
	6/9/1999	7.62	7.51	NP	0.11	21,000	110	190	310	2,600	7,900	7,800	--	--	--	--	--	--	--
	9/8/1999	7.62	8.15	NP	-0.53	23,300	477	138	286	4,110	16,400	15,300	--	--	--	--	--	--	--
	12/7/1999	7.62	8.31	NP	-0.69	4,840	17.2	ND	ND	157	14,900	15,600	--	--	--	--	--	--	--
	3/13/2000	7.62	6.69	NP	0.93	11,000	380	160	ND	2,100	22,000	26,000	--	--	--	--	--	--	--
	6/21/2000	7.62	7.67	NP	-0.05	9,100	22	ND	ND	800	16,000	22,000	--	--	--	--	--	--	--
	9/27/2000	7.62	7.44	NP	0.18	2,900	43	ND	ND	39	20,000	26,000	--	--	--	--	--	--	--
	12/12/2000	7.62	7.51	NP	0.11	3,600	17	ND	ND	87	8,000	7,800	--	--	--	--	--	--	--
	3/7/2001	7.62	7.15	NP	0.47	1,670	51.0	ND	7.20	19.5	5,930	7,900	ND	ND	ND	ND	ND	ND	ND
	6/6/2001	7.62	7.57	NP	0.05	1,100	14	ND	9.3	35	9,200	10,000	ND	ND	ND	ND	ND	ND	ND
	9/24/2001	7.62	7.63	NP	-0.01	1,000	25	<2.5	12	100	9,800	11,000	<1000	<1000	<1000	<20000	<400000	<1000	<1000
	12/10/2001	7.62	6.78	NP	0.84	83	14	0.55	3.4	6.8	2,500	2,500	<50	<50	<50	<2000	<40000	<50	<50
	3/11/2002	7.62	7.11	NP	0.51	<1000	28	<10	40	31	11,000	11,000	<200	<200	<200	<10000	<50000	<200	<200
	6/4/2002	7.62	7.17	NP	0.45	7,700	32	<25	33	48	14,000	--	--	--	--	--	--	--	--
	9/3/2002	7.62	7.57	NP	0.05	5,200	<25	<25	<25	<25	11,000	15,000	<1000	<1000	<1000	<50000	<250000	<1000	<1000
	12/3/2002	7.62	7.67	NP	-0.05	<5000	<50	<50	<50	<100	--	3,200	<200	<200	<200	<10000	<50000	<200	<200
3/4/2003	7.62	7.76	NP	-0.14	8,100	<50	<50	<50	<100	<100	7,800	<200	<200	<200	<10000	<50000	<200	<200	
6/18/2003	7.62	6.86	NP	0.76	11,000	<50	<50	<50	<100	--	16,000	<200	<200	<200	<10000	<50000	<200	<200	
9/24/2003	7.62	7.48	NP	0.14	<10000	<100	<100	<100	<200	--	10,000	<400	<400	<400	<20000	<100000	<400	<400	
12/2/2003	7.62	7.94	NP	-0.32	<10000	<100	<100	<100	<200	--	10,000	--	--	--	--	<100000	--	--	
3/30/2004	7.62	7.07	NP	0.55	12,000	<100	<100	<100	<200	--	11,000	<200	<100	<100	2,400	<10000	<100	<100	
6/7/2004	7.62	7.75	NP	-0.13	14,000	<100	<100	<100	<200	--	13,000	<200	<100	<100	2,600	<10000	<100	<100	
9/9/2004	7.62	8.64	NP	-1.02	<10000	<100	<100	<100	<200	--	9,500	<200	<100	<100	2,700	<10000	<100	<100	
12/20/2004	7.62	7.73	NP	-0.11	<5000	<50	<50	<50	<100	--	11,000	<100	<50	<50	3,500	<5000	<50	<50	
3/28/2005	7.62	6.23	NP	1.39	12,000	<50	<50	160	120	--	7,000	<50	<50	<0.50	830	<5000	<50	<50	
6/14/2005	7.62	7.05	NP	0.57	2,000	0.75	<0.50	3.7	1.1	--	2,400	<20	<20	<20	10,000	<2000	<20	<20	
9/28/2005	7.62	8.00	NP	-0.38	320	<0.50	<0.50	<0.50	<1.0	--	80	<0.50	<0.50	<0.50	13,000	<250	<0.50	<0.50	
12/29/2005	7.62	7.23	NP	0.39	<50	<0.50	<0.50	<0.50	<1.0	--	35	<0.50	<0.50	<0.50	11,000	<250	<0.50	<0.50	





TABLE 3  
 HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA  
 76 SERVICE STATION NO. 5325  
 3220 LAKESHORE AVENUE  
 OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPH (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
	6/27/1996	10.98	11.15	NP	-0.17	440	49	50	51	140	50	--	--	--	--	--	--	--	--
	9/26/1996	10.98	11.55	NP	-0.57	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	12/9/1996	10.98	10.11	NP	0.87	ND	ND	ND	ND	ND	29	--	--	--	--	--	--	--	--
	3/14/1997	10.98	10.86	NP	0.12	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	6/30/1997	10.98	11.07	NP	-0.09	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	9/19/1997	10.98	11.05	NP	-0.07	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	12/12/1997	10.98	10.57	NP	0.41	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	3/3/1998	10.98	9.84	NP	1.14	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	6/15/1998	10.98	10.56	NP	0.42	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	9/30/1998	10.98	11.11	NP	-0.13	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	12/28/1998	10.98	10.96	NP	0.02	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	3/22/1999	10.98	9.46	NP	1.52	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	6/9/1999	10.98	11.01	NP	-0.03	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	9/8/1999	10.98	11.31	NP	-0.33	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	12/7/1999	10.98	11.26	NP	-0.28	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	3/13/2000	10.98	8.27	NP	2.71	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	6/21/2000	10.98	11.11	NP	-0.13	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	9/27/2000	10.98	11.06	NP	-0.08	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	12/12/2000	10.98	10.93	NP	0.05	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	3/7/2001	10.98	8.31	NP	2.67	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	6/6/2001	10.98	10.93	NP	0.05	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	9/24/2001	10.98	11.02	NP	-0.04	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--
	12/10/2001	10.98	8.15	NP	2.83	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--
	3/11/2002	10.98	7.82	NP	3.16	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	--	--	--	--	--
	6/4/2002	10.98	10.57	NP	0.41	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--
	9/3/2002	10.98	10.93	NP	0.05	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--
	12/3/2002	10.98	10.65	NP	0.33	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--
	3/4/2003	10.98	10.76	NP	0.22	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--
	6/18/2003	10.98	10.26	NP	0.72	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--
	9/24/2003	10.98	10.88	NP	0.10	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--
	12/2/2003	10.98	11.00	NP	-0.02	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<500	--	--
	3/30/2004	10.98	10.64	NP	0.34	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<500	--	--
	6/7/2004	10.98	11.00	NP	-0.02	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<50	--	--
	9/9/2004	10.98	11.31	NP	-0.33	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<50	--	--
	12/20/2004	10.98	10.78	NP	0.20	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<50	--	--
	3/28/2005	10.98	9.80	NP	1.18	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<50	--	--
	6/14/2005	10.98	10.75	NP	0.23	<50	<0.50	<0.50	<0.50	1.2	--	--	--	--	--	--	<50	--	--
	9/28/2005	10.98	11.15	NP	-0.17	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<250	--	--
	12/29/2005	10.98	10.40	NP	0.58	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<250	--	--
	3/27/2006	10.98	10.15	NP	0.83	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<250	--	--
	6/12/2006	10.98	9.93	NP	1.05	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<250	--	--
	9/21/2006	10.98	11.01	NP	-0.03	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	<250	--	--
	12/21/2006	10.98	10.92	NP	0.06	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	<250	--	--
	3/28/2007	10.98	10.84	NP	0.14	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	<250	--	--
	6/27/2007	10.98	10.93	NP	0.05	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	<250	--	--
	9/26/2007	10.98	11.01	NP	-0.03	770	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	<250	--	--
	12/27/2007	10.98	10.93	NP	0.05	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<250	--	--
	3/26/2008	10.98	10.84	NP	0.14	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<250	--	--
	6/18/2008	10.98	10.89	NP	0.09	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<250	--	--
	9/24/2008	10.98	10.89	NP	0.09	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	<250	--	--

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TABLE 3  
 HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA  
 76 SERVICE STATION NO. 5325  
 3220 LAKESHORE AVENUE  
 OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-3	12/22/2008	10.98	10.93	NP	0.05	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/26/2009	10.98	10.69	NP	0.29	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2009	10.98	10.40	NP	0.58	<50	<0.50	<0.50	<0.50	<1.0	--	0.65	--	--	--	--	<250	--	--
	12/3/2009	10.98	11.10	NP	-0.12	<50	<0.50	<0.50	<0.50	<1.0	--	1.2	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	6/28/2010	10.98	10.67	NP	0.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	10.98	10.74	NP	0.24	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	12/20/2010	10.98	10.37	NP	0.61	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.91	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	6/3/2011	10.98	10.54	NP	0.44	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.73	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	12/5/2011	16.37	10.59	NP	5.78	<50.0	<0.50	<0.50	<0.50	<1.5	--	1.4	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	6/6/2012	16.37	10.47	NP	5.90	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.78	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	12/19/2012	16.37	10.50	NP	5.87	<50	<0.50	<0.50	<0.50	<0.50	--	0.55	<0.50	<0.50	<0.50	<5.0	<5.0	<0.50	<0.50
	3/13/2013	16.37	10.60	NP	5.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/13/2013	16.37	10.47	NP	5.90	<50	<0.50	<0.50	<0.50	<0.50	--	0.58	<0.50	<0.50	<0.50	11	<5.0	<0.50	<0.50
	3/13/2014	16.37	10.59	NP	5.78	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50	<0.50	<5.0	<5.0	<0.50	<0.50
	9/11/2014	16.37	10.65	NP	5.72	<50	<0.50	<0.50	<0.50	<0.50	--	0.53	<0.50	<0.50	<0.50	<5.0	<5.0	<0.50	<0.50
3/12/2015	16.37	10.57	NP	5.80	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	<0.50	<0.50	<0.50	<5.0	<5.0	<0.50	<0.50	
U-4	6/22/1994	11.15	10.15	NP	1.00	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	9/22/1994	11.15	10.78	NP	0.37	ND	0.78	1.3	ND	1.4	--	--	--	--	--	--	--	--	
	12/24/1994	11.15	9.81	NP	1.34	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	3/25/1995	11.15	9.51	NP	1.64	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	6/21/1995	11.15	9.53	NP	1.62	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	9/19/1995	11.15	10.17	NP	0.98	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	12/19/1995	11.15	9.97	NP	1.18	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	3/18/1996	11.15	9.65	NP	1.50	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	6/27/1996	11.15	9.73	NP	1.42	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	9/26/1996	11.15	10.14	NP	1.01	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	12/9/1996	11.15	8.67	NP	2.48	ND	ND	ND	ND	ND	33	--	--	--	--	--	--	--	
	3/14/1997	11.15	9.35	NP	1.80	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	6/30/1997	11.15	9.89	NP	1.26	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	9/19/1997	11.15	9.96	NP	1.19	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	12/12/1997	11.15	8.56	NP	2.59	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	3/3/1998	11.15	7.84	NP	3.31	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	6/15/1998	11.15	9.07	NP	2.08	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	9/30/1998	11.15	9.75	NP	1.40	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	12/28/1998	11.15	9.59	NP	1.56	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	3/22/1999	11.15	8.34	NP	2.81	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	6/9/1999	11.15	9.39	NP	1.76	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	9/8/1999	11.15	9.89	NP	1.26	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	12/7/1999	11.15	10.05	NP	1.10	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	3/13/2000	11.15	7.23	NP	3.92	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	6/21/2000	11.15	9.47	NP	1.68	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	9/27/2000	11.15	9.42	NP	1.73	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	12/12/2000	11.15	9.50	NP	1.65	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	3/7/2001	11.15	6.88	NP	4.27	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	6/6/2001	11.15	9.18	NP	1.97	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	9/24/2001	11.15	9.21	NP	1.94	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	
12/10/2001	11.15	7.32	NP	3.83	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--		
3/11/2002	11.15	6.92	NP	4.23	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	--	--	--	--		
6/4/2002	11.15	7.57	NP	3.58	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--		
9/3/2002	11.15	9.17	NP	1.98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--		



TABLE 3  
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA  
76 SERVICE STATION NO. 5325  
3220 LAKESHORE AVENUE  
OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	
U-5	9/26/1996	6.98	7.13	NP	-0.15	ND	ND	0.57	ND	0.96	ND	--	--	--	--	--	--	--	--	
	12/9/1996	6.98	5.90	NP	1.08	1,300	29	46	ND	140	97	--	--	--	--	--	--	--	--	
	3/14/1997	6.98	6.98	NP	0.00	ND	ND	ND	ND	ND	14	--	--	--	--	--	--	--	--	
	6/30/1997	6.98	7.07	NP	-0.09	4,200	74	51	180	980	270	--	--	--	--	--	--	--	--	
	9/19/1997	6.98	6.78	NP	0.20	6,300	160	13	370	1,000	480	--	--	--	--	--	--	--	--	
	12/12/1997	6.98	6.94	NP	0.04	60	1.3	ND	1.6	2.1	47	--	--	--	--	--	--	--	--	
	3/3/1998	6.98	6.50	NP	0.48	1,700	29	ND	150	190	330	--	--	--	--	--	--	--	--	
	6/15/1998	6.98	6.84	NP	0.14	1,500	32	ND	91	83	330	--	--	--	--	--	--	--	--	
	9/30/1998	6.98	7.30	NP	-0.32	1,700	44	ND	39	150	60	--	--	--	--	--	--	--	--	
	12/28/1998	6.98	7.25	NP	-0.27	1,400	59	ND	13	27	150	--	--	--	--	--	--	--	--	
	3/22/1999	6.98	6.86	NP	0.12	780	8.9	ND	0.76	4.5	350	--	--	--	--	--	--	--	--	
	6/9/1999	6.98	7.28	NP	-0.30	1,000	ND	ND	10	35	280	350	--	--	--	--	--	--	--	
	9/8/1999	6.98	7.51	NP	-0.53	2,620	26.2	ND	32.2	157	280	239	--	--	--	--	--	--	--	
	12/7/1999	6.98	7.67	NP	-0.69	949	9.26	ND	11.2	22.7	235	301	--	--	--	--	--	--	--	
	3/13/2000	6.98	6.73	NP	0.25	880	12	1.0	5.6	8.7	46	37	--	--	--	--	--	--	--	
	6/21/2000	6.98	7.38	NP	-0.40	700	4.0	ND	0.99	4.0	120	140	--	--	--	--	--	--	--	
	9/27/2000	6.98	7.44	NP	-0.46	400	1.9	ND	ND	1.5	160	250	--	--	--	--	--	--	--	
	12/12/2000	6.98	7.67	NP	-0.69	770	3.2	ND	ND	ND	27	13	--	--	--	--	--	--	--	
	3/7/2001	6.98	6.82	NP	0.16	623	5.15	ND	ND	0.669	35.7	43.4	ND	ND	ND	ND	ND	ND	ND	
	6/6/2001	6.98	7.42	NP	-0.44	110	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	9/24/2001	6.98	7.50	NP	-0.52	270	<0.50	<0.50	<0.50	<0.50	40	42	<10	<10	<10	<200	<4000	<10	<10	
	12/10/2001	6.98	6.65	NP	0.33	420	13	0.60	0.66	<0.50	<2.5	--	--	--	--	--	--	--	--	
	3/11/2002	6.98	7.00	NP	-0.02	260	<0.50	<0.50	<0.50	<0.50	42	47	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0	
	6/4/2002	6.98	6.71	NP	0.27	170	<0.50	0.77	0.87	0.69	29	--	--	--	--	--	--	--	--	
	9/3/2002	6.98	7.46	NP	-0.48	<50	<0.50	<0.50	<0.50	<0.50	37	53	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0	
	12/3/2002	6.98	6.63	NP	0.35	320	<0.50	<0.50	5.7	<1.0	--	11	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0	
	3/4/2003	6.98	6.75	NP	0.23	100	<0.50	<0.50	<0.50	<1.0	--	44	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0	
	6/18/2003	6.98	6.25	NP	0.73	51	<0.50	<0.50	<0.50	<1.0	--	36	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0	
	9/24/2003	6.98	6.86	NP	0.12	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--	
	12/2/2003	6.98	7.11	NP	-0.13	<50	<0.50	<0.50	<0.50	<1.0	--	24	--	--	--	--	<500	--	--	
	3/30/2004	6.98	6.88	NP	0.10	<50	<0.50	<0.50	<0.50	<1.0	--	130	<1.0	<0.50	<0.50	52	<50	<0.50	<0.50	
	6/7/2004	6.98	8.52	NP	-1.54	250	<0.50	<0.50	<0.50	<1.0	--	160	<1.0	<0.5	<0.5	69	<50	<0.5	<0.5	
	9/9/2004	6.98	12.27	NP	-5.29	340	<0.50	<0.50	<0.50	<1.0	--	260	<1.0	<0.50	<0.50	130	<50	<0.50	<0.50	
	12/20/2004	6.98	7.51	NP	-0.53	130	<0.50	<0.50	1.9	2.0	--	120	--	--	--	--	<50	--	--	
	3/28/2005	6.98	7.21	NP	-0.23	670	<2.0	<2.0	<2.0	<4.0	--	230	<0.50	<0.50	<0.50	150	<50	<0.50	<0.50	
	6/14/2005	6.98	7.46	NP	-0.48	160	<0.50	<0.50	<0.50	<1.0	--	400	<0.50	<0.50	<0.50	160	<100	<0.50	<0.50	
	9/28/2005	6.98	9.59	NP	-2.61	460	<0.50	<0.50	<0.50	<1.0	--	370	<0.50	<0.50	<0.50	220	<250	<0.50	<0.50	
	12/29/2005	6.98	7.53	NP	-0.55	150	<0.50	<0.50	<0.50	<1.0	--	190	<0.50	<0.50	<0.50	280	<250	<0.50	<0.50	
	3/27/2006	6.98	6.28	NP	0.70	450	<0.50	<0.50	8.3	<1.0	--	70	--	--	--	--	<250	--	--	
	6/12/2006	6.98	6.44	NP	0.54	370	<0.50	<0.50	<0.50	<1.0	--	61	--	--	--	--	<250	--	--	
	9/21/2006	6.98	6.59	NP	0.39	130	<0.50	<0.50	<0.50	<0.50	--	35	--	--	--	--	<250	--	--	
	12/21/2006	6.98	6.92	NP	0.06	230	<0.50	<0.50	0.58	<0.50	--	11	--	--	--	--	<250	--	--	
	3/28/2007	6.98	5.11	NP	1.87	400	<0.50	<0.50	5.4	<0.50	--	13	<0.50	<0.50	<0.50	870	<250	<0.50	<0.50	
	6/27/2007	6.98	4.40	NP	2.58	210	<0.50	<0.50	2.4	<0.50	--	18	<0.50	<0.50	<0.50	220	<250	<0.50	<0.50	
	9/26/2007	6.98	4.71	NP	2.27	740	<0.50	<0.50	<0.50	<0.50	--	18	--	--	--	--	<250	--	--	
	12/27/2007	6.98	6.76	NP	0.22	180	<0.50	<0.50	<0.50	<1.0	--	18	--	--	--	--	<250	--	--	
	3/26/2008	6.98	6.40	NP	0.58	310	<0.50	0.64	1.3	1.0	--	27	--	--	--	--	<250	--	--	
	6/18/2008	6.98	5.71	NP	1.27	790	<0.50	<0.50	2.4	<1.0	--	22	--	--	--	--	<250	--	--	
	9/24/2008	6.98	5.44	NP	1.54	860	1.2	<0.50	3.2	3.7	--	16	--	--	--	--	<250	--	--	
	12/22/2008	6.98	6.82	NP	0.16	620	<0.50	<0.50	0.54	1.3	--	13	--	--	--	--	<250	--	--	

TABLE 3  
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA  
76 SERVICE STATION NO. 5325  
3220 LAKESHORE AVENUE  
OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-5	3/26/2009	6.98	6.19	NP	0.79	310	<0.50	<0.50	<0.50	<1.0	--	9.4	--	--	--	--	<250	--	--
	6/23/2009	6.98	5.50	NP	1.48	80	<0.50	<0.50	<0.50	<1.0	--	7.1	--	--	--	--	<250	--	--
	12/3/2009	6.98	6.02	NP	0.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/4/2009	--	--	--	--	160	<0.50	<0.50	<0.50	<1.0	--	4.6	<0.50	<0.50	<0.50	79.4	<250	<1.0	<1.0
	6/28/2010	6.98	5.51	NP	1.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	6.98	5.71	NP	1.27	144	<0.50	<0.50	<0.50	<1.5	--	3.8	<0.50	<0.50	<0.50	66.6	<250	<1.0	<1.0
	12/20/2010	6.98	5.82	NP	1.16	164	<0.50	<0.50	<0.50	<1.5	--	3.9	<0.50	<0.50	<0.50	67.7	<250	<1.0	<1.0
	6/3/2011	6.98	6.05	NP	0.93	85.0	<0.50	<0.50	<0.50	<1.5	--	3.0	<0.50	<0.50	<0.50	61.6	<250	<1.0	<1.0
	12/5/2011	12.77	5.83	NP	6.94	279	<0.50	<0.50	<0.50	<1.5	--	3.8	<0.50	<0.50	<0.50	86.6	<250	<1.0	<1.0
	6/6/2012	12.77	6.90	NP	5.87	66.3	<0.50	<0.50	<0.50	<1.5	--	2.4	<0.50	<0.50	<0.50	46.3	<250	<1.0	<1.0
	12/19/2012	12.77	7.36	NP	5.41	88	<0.50	<0.50	<0.50	<0.50	--	5.1	<0.50	<0.50	<0.50	110	<250	<0.50	<0.50
	3/13/2013	12.77	7.62	NP	5.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/13/2013	12.77	7.16	NP	5.61	<50	<0.50	<0.50	<0.50	<0.50	--	12	<0.50	<0.50	<0.50	200	<5.0	<0.50	<0.50
	3/13/2014	12.77	7.52	NP	5.25	50	<0.50	<0.50	<0.50	<0.50	--	4.1	<0.50	<0.50	<0.50	100	<5.0	<0.50	<0.50
	9/11/2014	12.77	6.91	NP	5.86	<50	<0.50	<0.50	<0.50	<0.50	--	6.4	<0.50	<0.50	<0.50	130	<5.0	<0.50	<0.50
3/12/2015	12.77	7.42	NP	5.35	56.1	<0.50	<0.50	<0.50	<1.0	--	4.8	<0.50	<0.50	<0.50	125	<5.0	<0.50	<0.50	
U-6	6/22/1994	7.14	7.13	NP	0.01	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	9/22/1994	7.14	7.34	NP	-0.20	130	1.3	0.8	ND	0.73	--	--	--	--	--	--	--	--	
	12/24/1994	7.14	6.67	NP	0.47	6,900	500	59	600	380	--	--	--	--	--	--	--	--	
	3/25/1995	7.14	6.28	NP	0.86	47,000	450	1,300	1,700	8,200	--	--	--	--	--	--	--	--	
	6/21/1995	7.14	7.59	NP	-0.45	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	9/19/1995	7.14	7.69	NP	-0.55	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	12/19/1995	7.14	7.75	NP	-0.61	210	2.5	1.0	2.9	17	--	--	--	--	--	--	--	--	
	3/18/1996	7.14	6.86	NP	0.28	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	6/27/1996	7.14	6.51	NP	0.63	ND	ND	ND	ND	ND	510	--	--	--	--	--	--	--	
	9/26/1996	7.14	7.61	NP	-0.47	ND	ND	ND	ND	ND	1,400	--	--	--	--	--	--	--	
	12/9/1996	7.14	5.88	NP	1.26	1,200	29	48	6.4	140	58	--	--	--	--	--	--	--	
	3/14/1997	7.14	7.30	NP	-0.16	ND	ND	ND	ND	ND	1,500	--	--	--	--	--	--	--	
	6/30/1997	7.14	7.34	NP	-0.20	ND	ND	ND	ND	ND	990	--	--	--	--	--	--	--	
	9/19/1997	7.14	7.25	NP	-0.11	ND	ND	ND	ND	ND	1,400	--	--	--	--	--	--	--	
	12/12/1997	7.14	7.28	NP	-0.14	ND	ND	ND	ND	ND	680	--	--	--	--	--	--	--	
	3/3/1998	7.14	7.00	NP	0.14	ND	ND	ND	ND	ND	1,600	--	--	--	--	--	--	--	
	6/15/1998	7.14	7.17	NP	-0.03	ND	ND	ND	ND	ND	1,000	--	--	--	--	--	--	--	
	9/30/1998	7.14	7.90	NP	-0.76	ND	ND	ND	ND	ND	1,200	--	--	--	--	--	--	--	
	12/28/1998	7.14	7.78	NP	-0.64	ND	ND	ND	ND	ND	730	--	--	--	--	--	--	--	
	3/22/1999	7.14	7.46	NP	-0.32	ND	ND	ND	ND	ND	1,800	--	--	--	--	--	--	--	
	6/9/1999	7.14	7.73	NP	-0.59	ND	ND	ND	ND	ND	1,000	850	--	--	--	--	--	--	
	9/8/1999	7.14	7.94	NP	-0.80	98	ND	ND	ND	ND	851	1,040	--	--	--	--	--	--	
	12/7/1999	7.14	8.10	NP	-0.96	ND	ND	ND	ND	ND	1,140	1,150	--	--	--	--	--	--	
	3/13/2000	7.14	6.94	NP	0.20	ND	ND	ND	ND	ND	560	670	--	--	--	--	--	--	
	6/21/2000	7.14	7.84	NP	-0.70	ND	ND	ND	ND	ND	400	590	--	--	--	--	--	--	
	9/27/2000	7.14	7.67	NP	-0.53	ND	ND	ND	ND	ND	2,500	2,800	--	--	--	--	--	--	
	12/12/2000	7.14	7.73	NP	-0.59	ND	ND	ND	ND	ND	590	580	--	--	--	--	--	--	
	3/7/2001	7.14	7.26	NP	-0.12	ND	ND	ND	ND	ND	310	321	ND	ND	ND	ND	ND	ND	
	6/6/2001	7.14	7.80	NP	-0.66	ND	ND	ND	ND	ND	250	330	ND	ND	ND	ND	ND	ND	
	9/24/2001	7.14	7.82	NP	-0.68	<50	<0.50	<0.50	<0.50	<0.50	530	660	<100	<100	<100	<2000	<40000	<100	<100
	12/10/2001	7.14	7.15	NP	-0.01	<50	<0.50	<0.50	<0.50	<0.50	220	220	<5.0	<5.0	<5.0	<200	<400	<5.0	<5.0
	3/11/2002	7.14	7.32	NP	-0.18	<50	<0.50	<0.50	<0.50	<0.50	720	760	<8.0	<8.0	<8.0	<400	<2000	<8.0	<8.0
	6/4/2002	7.14	7.17	NP	-0.03	250	<1.0	<1.0	<1.0	<1.0	470	--	--	--	--	--	--	--	
	9/3/2002	7.14	7.71	NP	-0.57	420	<2.5	<2.5	<2.5	4.7	860	1,200	<40	<40	<40	<2000	<10000	<40	<40

**TABLE 3**  
**HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 SERVICE STATION NO. 5325**  
**3220 LAKESHORE AVENUE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW80218) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	
U-6	12/3/2002	7.14	6.92	NP	0.22	<500	<5.0	<5.0	<5.0	<10	--	<b>870</b>	<20	<20	<20	<1000	<5000	<20	<20	
	3/4/2003	7.14	7.01	NP	0.13	<b>2,300</b>	<10	<10	<10	<20	--	<b>2,700</b>	<40	<40	<40	<2000	<10000	<40	<40	
	6/18/2003	7.14	6.59	NP	0.55	<b>1,300</b>	<10	<10	<10	<20	--	<b>1,700</b>	<40	<40	<40	<2000	<10000	<40	<40	
	9/24/2003	7.14	7.23	NP	-0.09	<10000	<100	<100	<100	<200	--	<b>1,500</b>	<400	<400	<400	<20000	<100000	<400	<400	
	12/2/2003	7.14	7.80	NP	-0.66	<b>1,300</b>	<10	<10	<10	<20	--	<b>1,800</b>	--	--	--	--	<10000	--	--	
	3/30/2004	7.14	7.32	NP	-0.18	<b>1,200</b>	<10	<10	<10	<20	--	<b>1,700</b>	<20	<10	<10	<b>770</b>	<1000	<10	<10	
	6/7/2004	7.14	9.35	NP	-2.21	<b>1,700</b>	<10	<10	<10	<20	--	<b>1,800</b>	<20	<10	<10	<b>110</b>	<1000	<10	<10	
	9/9/2004	7.14	12.81	NP	-5.67	<10000	<10	<10	<10	<20	--	<b>1,400</b>	<20	<10	<10	<b>1,900</b>	<1000	<10	<10	
	12/20/2004	7.14	7.96	NP	-0.82	<b>320</b>	<2.5	<2.5	<2.5	<5.0	--	<b>65</b>	<5.0	<2.5	<2.5	<b>5,000</b>	<250	<2.5	<2.5	
	3/28/2005	7.14	7.07	NP	0.07	<50	<0.50	<0.50	<0.50	<1.0	--	<b>150</b>	<0.50	<0.50	<0.50	<b>990</b>	--	<2.5	<0.50	
	6/14/2005	7.14	7.88	NP	-0.74	<100	<1.0	<1.0	<1.0	<2.0	--	<b>20</b>	<0.50	<0.50	<0.50	<5.0	<100	<0.5	<0.5	
	9/28/2005	7.14	10.43	NP	-3.29	<b>150</b>	<0.50	<0.50	<0.50	<1.0	--	<b>4.6</b>	<0.50	<0.50	<0.50	<b>3,800</b>	<250	<0.50	<0.50	
	12/29/2005	7.14	7.63	NP	-0.49	<50	<0.50	<0.50	<0.50	<1.0	--	<b>13</b>	<0.50	<0.50	<0.50	<b>1,100</b>	<250	<0.50	<0.50	
	3/27/2006	7.14	6.15	NP	0.99	<50	<0.50	<0.50	<0.50	<1.0	--	<b>8.1</b>	--	--	--	--	<250	--	--	
	6/12/2006	7.14	6.59	NP	0.55	<50	<0.50	<0.50	<0.50	<1.0	--	<b>6.9</b>	--	--	--	--	<250	--	--	
	9/21/2006	7.14	6.90	NP	0.24	<50	<0.50	<0.50	<0.50	<0.50	--	<b>3.1</b>	--	--	--	--	<250	--	--	
	12/21/2006	7.14	7.36	NP	-0.22	<50	<0.50	<0.50	<0.50	<0.50	--	<b>1.2</b>	--	--	--	--	<250	--	--	
	3/28/2007	7.14	3.48	NP	3.66	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--	
	6/27/2007	7.14	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	9/26/2007	7.14	2.71	NP	4.43	<b>54</b>	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--	
	12/27/2007	7.14	6.96	NP	0.18	<50	<0.50	<0.50	<0.50	<1.0	--	<b>2.4</b>	--	--	--	--	<250	--	--	
	3/26/2008	7.14	6.55	NP	0.59	<50	<0.50	<0.50	<0.50	<1.0	--	<b>2.3</b>	--	--	--	--	<250	--	--	
	6/18/2008	7.14	6.71	NP	0.43	<50	<0.50	<0.50	<0.50	<1.0	--	<b>0.59</b>	--	--	--	--	<250	--	--	
	9/24/2008	7.14	5.50	NP	1.64	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	12/22/2008	7.14	6.48	NP	0.66	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	3/26/2009	7.14	6.09	NP	1.05	<250	<2.5	<2.5	<2.5	<5.0	--	<2.5	--	--	--	--	<1200	--	--	
	6/23/2009	7.14	4.80	NP	2.34	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	12/3/2009	7.14	5.31	NP	1.83	<50	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0	
	6/28/2010	7.14	4.77	NP	2.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	7.14	4.97	NP	2.17	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<b>11.4</b>	<250	<1.0	<1.0	
	12/20/2010	7.14	4.59	NP	2.55	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0	
	6/3/2011	7.14	5.26	NP	1.88	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0	
	12/5/2011	12.88	5.35	NP	7.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/6/2012	12.88	7.03	NP	5.85	<50.0	<0.50	<0.50	<0.50	<1.5	--	<b>0.79</b>	<0.50	<0.50	<0.50	<b>9.2</b>	<250	<1.0	<1.0		
12/19/2012	12.88	7.71	NP	5.17	<50.0	<0.50	<0.50	<0.50	<0.50	--	<b>1.5</b>	<0.50	<0.50	<0.50	<b>42</b>	<5.0	<0.50	<0.50		
3/13/2013	12.88	7.90	NP	4.98	<50.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9/13/2013	12.88	7.67	NP	5.21	<50	<0.50	<0.50	<0.50	<0.50	--	<b>2.8</b>	<0.50	<0.50	<0.50	<b>37</b>	<5.0	<0.50	<0.50		
3/13/2014	12.88	7.93	NP	4.95	<50	<0.50	<0.50	<0.50	<0.50	--	<b>1.9</b>	<0.50	<0.50	<0.50	<b>66</b>	<5.0	<0.50	<0.50		
9/11/2014	12.88	7.39	NP	5.49	<50	<0.50	<0.50	<0.50	<0.50	--	<b>3.9</b>	<0.50	<0.50	<0.50	<b>140</b>	<5.0	<0.50	<0.50		
3/12/2015	12.88	7.76	NP	5.12	<50	<0.50	<0.50	<0.50	<1.0	--	<b>2.3</b>	<0.50	<0.50	<0.50	<b>179</b>	<5.0	<0.50	<0.50		

**Gauging Notes:**  
 TOC - Top of Casing  
 ft - Feet  
 NP - LNAPL not present  
 LNAPL - Light non-aqueous phase liquid  
 \* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)  
 WI - Well Inaccessible  
 DRY - Well is dry  
 -- - No information available

**Analytical Notes:**  
 < - Below Laboratory's indicated reporting limit  
 DRY - Well was Dry; sample could not be taken  
 LPH - Liquid Phase Hydrocarbons  
 ND - Not detected, and detection limit is not known  
 ug/L - micrograms/liter  
 WI - Well Inaccessible  
 TPHg - Total petroleum hydrocarbons as gasoline  
 MTBE - Methyl tertiary-butyl ether  
 DIPE - Di-isopropyl ether  
 ETBE - Ethyl tertiary-butyl ether  
 TAME - Tertiary-amyl methyl ether  
 TBA - Tertiary-butyl alcohol  
**Bold** - Above the laboratory's indicated reporting limit

TABLE 3a  
 ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA  
 76 SERVICE STATION NO. 5325  
 3220 LAKESHORE AVENUE  
 OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																		
		Acetone (ug/L)	Alkalinity, Total as CaCO3 (ug/L)	Antimony SW6010 D (ug/L)	Antimony SW6010 T (ug/L)	Arsenic SW6010 D (ug/L)	Arsenic SW6010 T (ug/L)	Barium SW6010 D (ug/L)	Barium SW6010 T (ug/L)	Beryllium SW6010 D (ug/L)	Beryllium SW6010 T (ug/L)	Biochemical Oxygen Demand (ug/L)	Bromate (mg/L)	Bromide (mg/L)	Cadmium SW6010 D (ug/L)	Cadmium SW6010 T (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Chromium E200.7 T (ug/L)	Chromium, Hexavalent (ug/L)
U-1	6/30/2010	<5.0	--	--	<60.0	--	52.5	--	293	--	<5.0	23,400	--	--	--	<5.0	113,000	43,800	--	--
	12/20/2010	<5.0	371,000	<60.0	--	32.5	--	237	--	<5.0	16,700	--	--	<5.0	--	41,000	46,000	--	--	
	6/3/2011	<5.0	--	<60.0	--	44.0	--	224	--	<5.0	19,600	<0.005	0.6	<5.0	--	40,400	40,700	<5	<0.2	
U-2	6/30/2010	29.5	--	--	<60.0	--	100	--	264	--	<5.0	12,300	--	--	--	<5.0	62,100	74,000	--	--
	12/20/2010	13.5	754,000	<60.0	--	46.4	--	209	--	<5.0	17,300	--	--	<5.0	--	65,500	61,400	--	--	
	6/3/2011	<5.0	--	<60.0	--	64.4	--	190	--	<5.0	<2000	<0.005	1.2	<5.0	--	65,600	57,700	<5	<0.2	
U-3	12/20/2010	--	312,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U-4	6/30/2010	<5.0	--	--	<60.0	--	<10.0	--	<100	--	<5.0	<2000	--	--	--	<5.0	<5000	41,100	--	--
	12/20/2010	<5.0	352,000	<60.0	--	<20.0	--	<100	--	<5.0	<2000	--	--	<5.0	--	9,090	43,500	--	--	
	6/3/2011	<5.0	--	<60.0	--	<20.0	--	<100	--	<5.0	11,500	<0.005	0.64	<5.0	--	9,530	40,600	<5	1.5	
U-5	12/20/2010	--	319,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U-6	12/20/2010	--	87,800	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analytical Notes:

- < - Below Laboratory's indicated reporting limit
- DRY - Well was Dry; sample could not be taken
- LPH - Liquid Phase Hydrocarbons
- mg/L - milligrams per liter
- ug/L - micrograms/liter
- Bold - Above the laboratory's indicated reporting limit













TABLE 3b  
 ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA  
 76 SERVICE STATION NO. 5325  
 3220 LAKESHORE AVENUE  
 OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																				
		Cobalt SW6010 D (ug/L)	Cobalt SW6010 T (ug/L)	Coliform, Total (MPN/100ML)	E. Coli (MPN/100ML)	Inorganic Carbon (mg/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Lead SW6010 T (ug/L)	Manganese SW6010 D (ug/L)	Manganese SW6010 T (ug/L)	Mercury SW7470A D (ug/L)	Mercury SW7470A T (ug/L)	Methane (ug/L)	Molybdenum SW6010 D (ug/L)	Molybdenum SW5010 T (ug/L)	Nickel SW6010 D (ug/L)	Nickel SW6010 T (ug/L)	Nitrate as N (ug/L)	
U-6	9/21/2006	--	--	--	--	--	--	2,900	--	--	--	--	--	--	--	--	--	--	--	--	190	
	12/21/2006	--	--	--	--	--	--	11,000	--	--	--	--	--	--	--	--	--	--	--	--	360	
	3/28/2007	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--	--	--	--	--	550	
	6/27/2007	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	
	9/26/2007	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--	--	--	--	--	410	
	12/27/2007	--	--	--	--	--	--	7,700	--	--	--	--	--	--	--	--	--	--	--	--	--	<100
	3/26/2008	--	--	--	--	--	--	19,000	--	--	--	--	--	--	--	--	--	--	--	--	--	<100
	6/18/2008	--	--	--	--	--	--	2,100,000	--	--	--	--	--	--	--	--	--	--	--	--	--	<100
	9/24/2008	--	--	--	--	--	--	220,000	--	--	--	--	--	--	--	--	--	--	--	--	--	<100
	12/22/2008	--	--	--	--	--	--	290,000	--	--	--	--	--	--	--	--	--	--	--	--	--	<100
	3/26/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<100
	6/30/2010	--	--	--	--	--	566,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<100
	12/20/2010	--	--	--	--	--	28,500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	486

**Analytical Notes:**  
 < - Below Laboratory's indicated reporting limit  
 DRY - Well was Dry; sample could not be taken  
 LPH - Liquid Phase Hydrocarbons  
 mg/L - milligrams per liter  
 MPN/100ML - most probable number per 100 ml  
 ND - Not detected, and detection limit is not known  
 ug/L - micrograms/liter  
 WI - Well Inaccessible  
 Bold - Above the laboratory's indicated reporting limit













TABLE 3c  
 ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA  
 76 SERVICE STATION NO. 5325  
 3220 LAKESHORE AVENUE  
 OAKLAND, CALIFORNIA



Well I.D.	Date	GROUND WATER ANALYTICAL DATA																			
		Nitrite as N (ug/L)	Nitrogen (ug/L)	Nitrogen, Ammonia (mg/L)	Nitrogen, NO2 plus NO3 (ug/L)	Nitrogen, Total Kjeldahl (mg/L)	Oxidation Reduction Potential FIELD_PostPurge (MILLIVOLTS)	Oxidation Reduction Potential FIELD_PrePurge (MILLIVOLTS)	Phosphate (mg/L)	Phosphate, Ortho (mg/L)	Selenium SW6010 D (ug/L)	Selenium SW6010 T (ug/L)	Silver SW6010 D (ug/L)	Silver SW6010 T (ug/L)	Sulfate (ug/L)	Thallium SW6010 D (ug/L)	Thallium SW6010 T (ug/L)	Vanadium SW6010 D (ug/L)	Vanadium SW6010 T (ug/L)	Zinc SW6010 D (ug/L)	Zinc SW6010 T (ug/L)
U-6	9/26/2007	--	--	--	--	--	--	--	0.34	--	--	--	--	--	--	--	--	--	--	--	--
	12/27/2007	--	--	--	--	--	--	--	1.0	--	--	--	--	--	--	--	--	--	--	--	--
	3/26/2008	--	--	--	--	--	--	--	1.2	--	--	--	--	--	--	--	--	--	--	--	--
	6/18/2008	--	--	--	--	--	--	--	0.076	--	--	--	--	--	--	--	--	--	--	--	--
	9/24/2008	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/2008	--	--	--	--	--	--	--	0.39	--	--	--	--	--	--	--	--	--	--	--	--
	3/26/2009	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	44.3	--	--	308	--	--	--	--	--	--	--	--	--	10,100	--	--	--	--	--	--
	12/20/2010	33.4	--	--	520	--	--	--	--	--	--	--	--	--	12,400	--	--	--	--	--	--

Analytical Notes:  
 < - Below Laboratory's indicated reporting limit  
 DRY - Well was Dry; sample could not be taken  
 LPH - Liquid Phase Hydrocarbons  
 mg/L - milligrams per liter  
 MILLIVOLTS - millivolts  
 ND - Not detected, and detection limit is not known  
 ug/L - micrograms/liter  
 WI - Well Inaccessible  
 Bold - Above the laboratory's indicated reporting limit



**TABLE 4**  
**Historical Groundwater Gradient and Flow Directions**

76 Service Station No. 5325  
 3220 Lakeshore Avenue  
 Oakland, CA

Site	Monitoring Date	Groundwater Gradient (feet per foot)	Groundwater Flow Direction																
			N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
5325	12/29/2005	0.0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	3/27/2006	0.0250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	6/12/2006	0.0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	9/21/2006	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/21/2006	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3/28/2007	0.0100	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	6/27/2007	0.0300	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	9/26/2007	0.0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	12/27/2007	0.0200	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	3/6/2008	0.0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	6/18/2008	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9/24/2008	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/22/2008	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3/26/2009	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6/23/2009	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/3/2009	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6/28/2009	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6/28/2010	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/20/2010	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6/3/2011	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12/5/2012	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6/6/2012	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12/19/2012	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3/13/2013	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9/13/2013	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3/13/2014	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9/11/2014	0.0150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
3/12/2015	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		<b>0.024 Average</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>26</b>	<b>4</b>

**Explanation**  
 NA = Not available  
 Number of Events = 82