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Jennifer C. Sedlachek
Project Manager

August 23, 2012

ExxonMobil

Mr. Mark E. Detterman
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RECEIVED

1:02 pm, Aug 27, 2012

Alameda County
Environmental Health

Subject: Work Plan for Limited Site Assessment
Former Exxon RAS #70691
10100 International Boulevard, Oakland, California
ACHCSA File No. RO0000162

Dear Mr. Detterman:

Attached for your review and comment is a copy of the *Work Plan for Limited Site Assessment* for the above-referenced site. The document, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, is submitted in response to correspondence from the Alameda County Health Care Services Agency dated June 21, 2012.

Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

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

Sincerely,

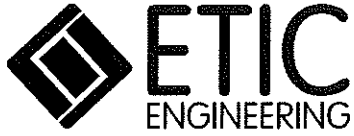


Jennifer C. Sedlachek
Project Manager

Attachment: ETIC Work Plan for Limited Site Assessment

- c: w/ attachment:
 - Mr. Jose Saucedo - Dodg Corporation
 - Mr. Tony and Ms. Fee Ling Chan
 - Mr. Hussein Saffouri - Ramsey Law Group

- c: w/o attachment:
 - Mr. Thomas E. Neely - ETIC Engineering, Inc.



Work Plan for Limited Site Assessment

Former Exxon Retail Site 70691
10100 International Boulevard
Oakland, California
ACHCSA File No. RO0000162

Prepared for

ExxonMobil Oil Corporation

Prepared by

ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, California 94523
(925) 602-4710

Hamidou Barry
Project Manager

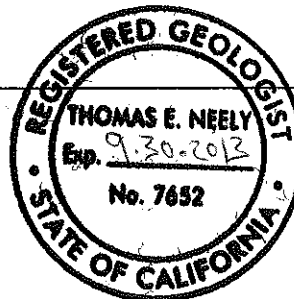
8/22/12

Date

Thomas E. Neely, PG, CHG, QSD
Senior Hydrogeologist

8/22/12

Date



August 2012

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Former Exxon Retail Site 70691

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- 11 Grab groundwater sample analytical results for temporary soil borings – PAHs and PCBs.
- 12 Grab groundwater sample analytical results for temporary soil borings – metals.
- 13 Proposed soil sampling and analysis plan.
- 14 Proposed grab groundwater sampling and analysis plan.

SITE CONTACTS

Site Name: Former Exxon Retail Site 70691

Site Address: 10100 International Boulevard
Oakland, California

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1.0 INTRODUCTION

At the request of ExxonMobil Environmental Services Company on behalf of ExxonMobil Oil Corporation (ExxonMobil), ETIC Engineering, Inc. (ETIC) has prepared this Work Plan for Limited Site Assessment (Work Plan) for former Exxon Retail Site (RS) 70691, located at 10100 International Boulevard (also known as East 14th Street) in Oakland, California (Figures 1, 2, and 3). This Work Plan is being submitted in response to a letter from the Alameda County Health Care Services Agency (ACHCSA) dated 21 June 2012 (ACHCSA 2012), and a telephone conversation with the ACHCSA on 25 July 2012. Regulatory correspondence is included in Appendix A.

A Soil and Groundwater Investigation Report was submitted to the ACHCSA in April 2012 (ETIC 2012a). The report detailed the field and analytical data obtained from 12 onsite soil borings (B3 through B13 and B9A) drilled in February 2012 in accordance with the Information Submittal and Work Plan for Subsurface Investigation dated November 2011 (ETIC 2011) and Addendum to Work Plan for Subsurface Investigation dated February 2012 (ETIC 2012b). The soil and grab groundwater samples were analyzed for a comprehensive list of analytes in accordance with various regulatory directives (ETIC 2012a). Additionally, underground utility lines were located and two geophysical anomalies were identified during the geophysical survey conducted in January 2012 (ETIC 2012c).

In its letter dated 21 June 2012, the ACHCSA requested a Limited Site Assessment Work Plan to include the installation of at least one soil boring to determine if the static groundwater is shallow at the site, and further investigation of former potential source areas (former location of the 500-gallon used-oil tank, former fuel dispenser islands, former oil/water separator, and two geophysical anomalies).

This document outlines the proposed scope of work addressing the technical comments made by the ACHCSA in its letter dated 21 June 2012.

2.0 SITE BACKGROUND

2.1 SITE LOCATION AND LAND USE

The site is comprised of Assessor's Parcel Number 047-5516-017-01 and is situated at 10100 International Boulevard at the southeastern corner of the intersection of 101st Avenue and International Boulevard (also known as East 14th Street) in Oakland, California (Figure 1). The site consists of four adjacent lots (19 through 22), extending southward from 101st Avenue along East 14th Street (ACA 2006). Lot 19 has been identified with the addresses 10100 and 10102 East 14th Street. Lot 20 has been identified with the addresses 10102½ and 10106 East 14th Street. Lot 21 has been identified with the address 10112 East 14th Street. Lot 22 has been identified with the address 10116 East 14th Street. Properties in the vicinity of the site are a mixture of commercial and residential. The site is currently occupied by EZ Tires shop with associated parking.

2.2 SUMMARY OF PREVIOUS INVESTIGATIONS

In March 1974, two 8,000-gallon underground storage tanks (USTs) and one 550-gallon used-oil UST were excavated and removed from the site under a permit from the City of Oakland (City of Oakland 1990).

In October 1993, an oil/water separator and associated piping at the site were emptied, cleaned, and filled with concrete (Geomatrix 1994). During closure activities, Geomatrix personnel observed a gap in the seam around the sanitary sewer drain pipe approximately 8 inches below the garage floor in the oil/water separator. In November 1993, two soil samples were collected from approximately 1 foot below ground surface (bgs) at locations B-1 and B-2 (Figure 2), adjacent to the northwestern and southeastern corners of the oil/water separator, respectively (Geomatrix 1994). Total Petroleum Hydrocarbons quantified as gasoline (TPH-g) and diesel (TPH-d) were detected in the samples. However, the analytical laboratory noted that the petroleum hydrocarbons present were likely heavier compounds such as motor oil. Volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and elevated concentrations of lead also were detected in the soil samples (Geomatrix 1994).

Reportedly, in late 1993 or 1994, soil was excavated presumably to remove impacted soil in the vicinity of the former oil/water separator (RGA 1999). Reportedly, the excavation was approximately 6 feet wide and 17 feet deep (the length of excavation was not stated). One sample was apparently collected from the excavated soil and indicated the presence of Total Petroleum Hydrocarbons as motor oil (TPH-mo) at 6,200 parts per million (RGA 1999). The location of the excavation was not specified and the disposition of soil was not provided.

In July 1999, RGA Environmental (on behalf of the owner) submitted a work plan to conduct a subsurface investigation. However, there are no records indicating that the investigation was performed.

In January 2012, a geophysical survey was performed by NORCAL Geophysical Consultants, Inc. (NORCAL). NORCAL used vertical magnetic gradient, metal detector, ground-penetrating radar (GPR), and electromagnetic line locating methods to identify subsurface structures beneath the site.

Underground utility lines were located (Figure 2). Two subsurface anomalies (Figure 2) were identified using GPR. The first anomaly measured approximately 27 feet long by 22 feet wide and was located north of the building. NORCAL stated that the GPR reflection patterns were consistent with a backfilled UST excavation. The second anomaly measured approximately 10 feet long by 10 feet wide and was located in the southern portion of the site. NORCAL reported that the anomaly likely represents a former concrete pad or foundation backfill (ETIC 2012a).

Former hydraulic lifts and the former oil/water separator excavation could not be identified using geophysical methods due to steel-reinforced concrete floors in the garage. However, distinguishable concrete patches in the garage floors may indicate the locations of the former oil/water separator excavation, former hydraulic system control piping, former hydraulic lift, and former used-oil drain (ETIC 2012a).

In February 2012, 12 onsite soil borings (B3 through B13 and B9A) were drilled. The borings were drilled in the vicinity of the former oil/water separator, used-oil tank, the GPR anomalies, former buildings, and features at the site to maximum depths ranging from 24 to 38 feet bgs to assess the presence of potential chemicals in soil and groundwater. The soil and groundwater samples were analyzed for a comprehensive list of analytes, in accordance with various regulatory directives (ETIC 2012a).

A full discussion of the site history is presented in the November 2011 Information Submittal and Work Plan for Subsurface Investigation (ETIC 2011) and Soil and Groundwater Investigation Report (ETIC 2012a).

The results of laboratory analysis performed on the samples collected during the investigations conducted in November 1993 and February 2012 are summarized in Tables 1 through 12.

3.0 GEOLOGY AND HYDROGEOLOGY

3.1 REGIONAL GEOLOGY AND HYDROGEOLOGY

The site is located in the East Bay Plain Subbasin of the Santa Clara Valley Groundwater Basin. The East Bay Plain Subbasin is a northwest trending alluvial plain bounded on the north by San Pablo Bay, on the east by the contact with Franciscan Basement rock, and on the south by the Niles Cone Groundwater Basin. The East Bay Plain Basin extends beneath San Francisco Bay to the west. Numerous creeks including San Pablo Creek, Wildcat Creek, San Leandro Creek, and San Lorenzo Creek flow from the western slope of the Coast Ranges westward across the plain and into the San Francisco Bay. The East Bay Plain Subbasin aquifer system consists of unconsolidated deposits of Quaternary age. Deposits include the early Pleistocene Santa Clara Formation, the late Pleistocene Alameda Formation, the early Holocene Temescal Formation, and Artificial Fill. The cumulative thickness of the unconsolidated deposits is about 1,000 feet (DWR 2003).

Early Pleistocene Santa Clara Formation

The Santa Clara Formation consists of alluvial fan deposits inter-fingered with lake, swamp, river channel, and flood plain deposits. The formation ranges from 300 to 600 feet thick (DWR 2003).

Late Pleistocene Alameda Formation

The Alameda Formation includes a sequence of alluvial fan deposits. The formation was deposited primarily in an estuarine environment and ranges from 26 to 245 feet thick (DWR 2003).

Early Holocene Temescal Formation

The Temescal Formation is an alluvial deposit consisting primarily of silt and clay with some gravel layers. The formation ranges from 1 to 50 feet thick (DWR 2003).

Artificial Fill

Artificial fill is found mostly along the bay front and wetlands areas and is derived primarily from dredging as well as quarrying, construction, demolition debris, and municipal waste. The fill ranges in thickness from 1 to 50 feet with the thickest deposits found closer to San Francisco Bay (DWR 2003).

3.2 LOCAL GEOLOGY AND HYDROGEOLOGY

Local geology information and local hydrogeology information are from the investigation conducted in February 2012 (ETIC 2012a) and records obtained for the nearby Former 76 Service Station #7124 site located at 10151 International Boulevard (Stantec 2009). Based upon subsurface assessment activities performed at the Former 76 station, the site is underlain by silty sand to depths of approximately 5 to 7 feet bgs. The silty sand is underlain generally by clay to depths of approximately 12 to 15 feet bgs. The clay is underlain generally by interbedded silt and clay with occasional sand with thicknesses of up to 3 feet observed (Stantec 2009).

The majority of the soil encountered at former Exxon RS 70691 generally consisted of clay and silt with occasional sand and gravel to depths of approximately 31 to 32 feet bgs (ETIC 2012a). Thin layers of silty sand were occasionally encountered within the clay and silt. A layer of silty sand measuring approximately 1.5 to 2 feet thick was encountered in the borings at approximately 31 to 32 feet bgs. The silty sand was generally underlain by silt and clay. Poorly graded sand was encountered in boring B5 at approximately 37 to 38 feet bgs, the maximum depth explored during this investigation. Artificial fill was encountered in borings B4 and B13; the fill material encountered in boring B4 consisted of silty clay with sand and occasional fragments of brick and concrete to a depth of approximately 8 feet bgs. The fill material encountered in boring B13 was composed of silt and sand to a depth of approximately 5.5 feet bgs and sand and gravel to a depth of approximately 11 feet bgs (ETIC 2012a).

Historically, the depth to groundwater at the Former 76 station site has ranged from approximately 13.5 to 20 feet bgs. The direction of groundwater flow during the fourth quarter of 2011 was toward the west-northwest with a hydraulic gradient of approximately 0.009 foot/foot, consistent with the historically dominant direction (ARCADIS 2012). Occasionally, the groundwater flow direction at the Former 76 station site was reported to be toward the south or northwest (Stantec 2009). Groundwater at the former Exxon RS 70691 site was first encountered at depths between approximately 14 and 25.5 feet bgs (ETIC 2012a).

The surface water body closest to the site is San Leandro Creek. The creek flows generally to the west and passes approximately 1 mile south of the site before draining into San Leandro Bay and then to San Francisco Bay.

4.0 PROPOSED SCOPE OF WORK FOR SUBSURFACE INVESTIGATION

Nine onsite soil borings are proposed at the locations shown on Figure 3. The drilling locations and proposed laboratory analyses were selected to address the technical comments made by the ACHCSA in its letter dated 21 June 2012.

The following tasks are proposed for this limited site assessment.

- Obtain drilling permits;
- Implement health and safety measures;
- Perform a geophysical survey to aid in identifying the locations of underground utilities;
- Conduct a soil and groundwater investigation at the locations described in Section 4.2;
- Evaluate the hydrogeologic and laboratory analytical data; and
- Prepare a written report of the investigation activities.

Details regarding each of these tasks are presented below.

4.1 PRE-FIELD ACTIVITIES

Drilling permits will be obtained from the Alameda County Public Works Agency (ACPWA) prior to the performance of this work. Each proposed boring location will be marked, and Underground Service Alert will be notified to check for the presence of underground utilities. A private contractor will be hired to check each proposed drilling location for underground utilities. A site-specific health and safety plan will be prepared and implemented during drilling and sampling activities. The work will be conducted under the oversight of a California-licensed Professional Geologist.

4.2 PROPOSED SAMPLING LOCATIONS

The following sampling locations are proposed to further investigate the former potential source areas including the former location of the 500-gallon used-oil tank, the former fuel dispenser islands, former oil/water separator, and two GPR anomalies. The proposed sampling locations are presented on Figure 3. The proposed sampling and analysis plans for soil and groundwater are presented in Tables 13 and 14, respectively.

- **Sampling location B14:** Proposed to be in close proximity to the location of the former oil/water separator and in the vicinity of previous borings B-1 and B-2. Soil and groundwater samples will be collected at this location.

- **Sampling location B15:** Proposed to be within the approximate location of the former 500-gallon used-oil tank (between previous borings B6 and B8). Soil and groundwater samples will be collected at this location.
- **Sampling location B16:** Proposed to be within the southern GPR anomaly for the collection of soil samples only. Groundwater samples will be collected only if impacted soil is encountered during drilling.
- **Sampling locations B17, B19, and B20:** Proposed to be along the presumed locations of the former fuel dispenser islands for the collection of soil samples only. Groundwater samples will be collected only if impacted soil is encountered during drilling.
- **Sampling location B18:** Proposed to be along the presumed location of a former fuel dispenser island for the collection of soil and groundwater samples.
- **Sampling locations B21 and B22:** Proposed to be within the northern GPR anomaly for the collection of soil samples only. Additional soil samples will be collected below 15 feet bgs only if impacted soil is encountered during drilling. Groundwater samples will be collected only if impacted soil is encountered during drilling.

4.3 DRILLING AND SAMPLING

ETIC proposes to conduct the following activities:

- The dual-tube direct-push method is proposed for the advancement of the 9 soil borings. The borings will be advanced to maximum depths of approximately 10 feet bgs near the presumed locations of the former dispenser islands (sampling locations B17, B19, and B20), 15 feet bgs within the southern and northern GPR anomalies (sampling locations B16, B21, and B22), and 20 feet bgs near the former oil/water separator, former used-oil tank, and presumed location of a fuel dispenser island (sampling locations B14, B15, and B18). The proposed boring locations may need to be modified based on the presence of utilities, equipment access, traffic requirements, or other obstacles that may be encountered. Installation and sample collection methods are described in the field protocols in Appendix B.
- Soil samples will be collected continuously to the total depth of the borings to be examined and logged in accordance with the Unified Soil Classification System. Soil samples will be retained for laboratory analysis as indicated in Table 13 and based on significant lithologic changes and/or photoionization detector field measurements.
- All soil samples will be preserved, stored in an ice-filled cooler, and delivered under chain of custody to a laboratory certified by the California Department of Health Services.

- Groundwater samples will be collected at locations B14, B15, and B18 from depths corresponding to first-encountered groundwater as indicated in Table 14. Attempts will be made to collect groundwater samples at locations B14, B15 and B18 at depths no more than 20 feet bgs through polyvinyl chloride (PVC) temporary casings to be left opened for 24 to 72 hours as allowed by the ACPWA. If groundwater does not accumulate in the allowable time frame at depths to 20 feet bgs, the borings will be drilled deeper for groundwater sample collection.
- Groundwater samples will be collected using a bailer, peristaltic pump, or inertial pump. Small-diameter well casing with 0.010-inch slotted well screen or equivalent may be installed in the temporary borings to facilitate the collection of groundwater samples (Appendix B).
- All reusable sampling equipment will be decontaminated between uses.
- The soil borings will be filled and sealed with neat cement after the completion of sampling.

4.4 LABORATORY ANALYSIS

As indicated in the sampling and analysis plans presented in Tables 13 and 14, the soil and groundwater samples collected during the proposed investigation will be analyzed for some or all of the following:

- TPH-g by EPA Method 8015B (M) or 8260B.
- TPH-d and TPH-mo by EPA Method 8015B (M) with or without a silica gel cleanup.
- Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B.
- Diisopropyl ether, ethyl tertiary butyl ether, methyl tertiary butyl ether, tertiary amyl methyl ether, tertiary butyl alcohol, ethylene dibromide, and ethylene dichloride by EPA Method 8260B.
- VOCs by EPA Method 8260B.
- SVOCs, including polynuclear aromatic hydrocarbons, by EPA Method 8270.
- Polychlorinated biphenyls by EPA Method 8082.
- Five metals: cadmium, chromium, lead, nickel, and zinc by EPA Method 6010B. The groundwater samples will be analyzed for dissolved metals.

4.5 DATA EVALUATION AND REPORTING

The results of the investigation will be presented in a written report. The report will include a summary of the findings, soil boring logs, and soil and groundwater laboratory analytical data. Data will be uploaded to the state's GeoTracker database in accordance with AB2886. The data will be summarized in tables, and conclusions and recommendations will be presented.

5.0 SCHEDULE

Completion of the proposed investigation is contingent upon approval of this work plan by the ACHCSA and upon receipt of approved soil boring permits. The report will be submitted within 90 days after the completion of the field work. ETIC will inform the ACHCSA of the schedule for the investigation.

Additionally, in the event that the work scope must be altered significantly due to access constraints and/or other unexpected issues, ETIC will notify ACHCSA personnel prior to implementing changes to the work scope.

6.0 REFERENCES

ACA (Alameda County Assessor). 2006. Alameda County Assessor's Office printout. 22 September.

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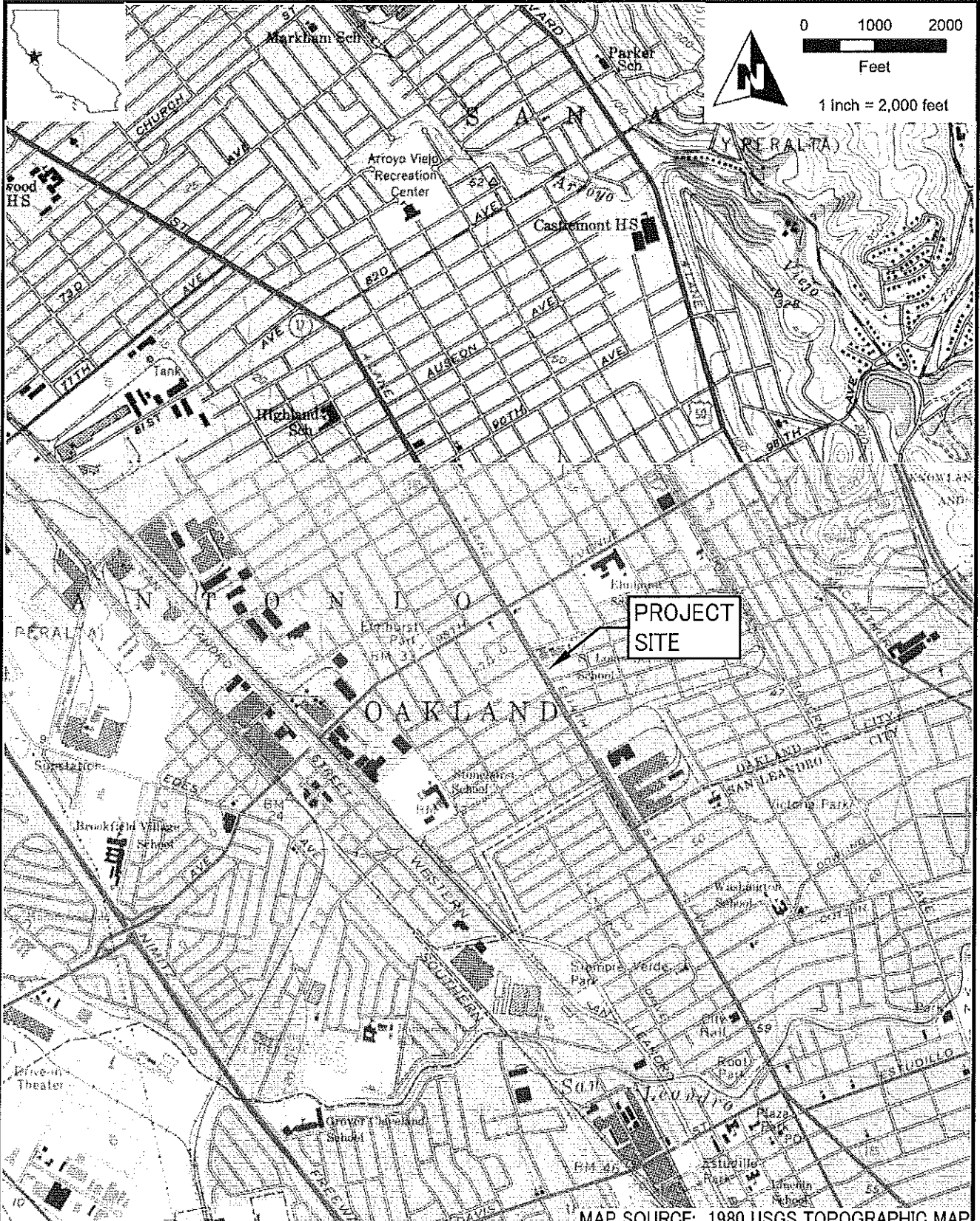
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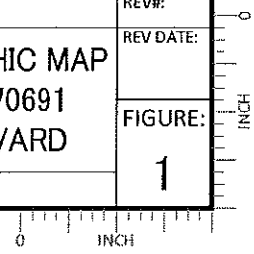
Figures



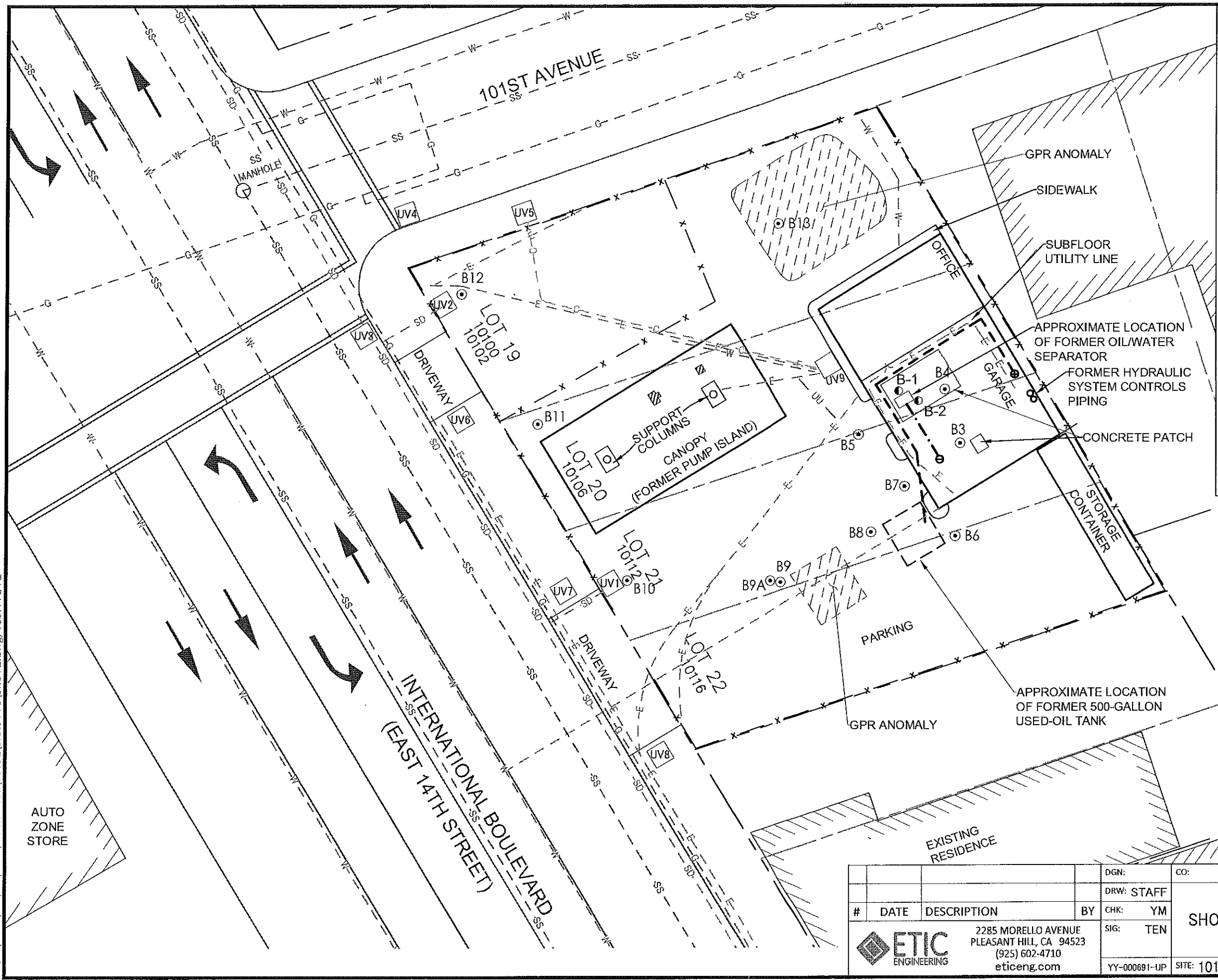
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				CHK: YM		
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 2285 MORELLO AVENUE PLEASANT HILL, CA 94523 (925) 602-4710 eticeng.com				YY-070691-UP		



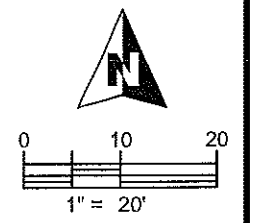
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LEGEND

- SOIL BORING (NOVEMBER 1993)
- ⊖ OIL/WATER SEPARATOR DRAIN
- ⊕ REMOTE USED OIL DRAIN (SEALED)
- ⊙ SOIL AND GROUNDWATER SAMPLING LOCATION (ETIC)
- · — · — OIL/WATER SEPARATOR PIPELINE
- · — · — REMOTE FILL PIPELINE
- x - x - FENCE
- — — — — FORMER LOT LINE
- — — — — WATER
- SS — — — SANITARY SEWER
- SD — — — STORM DRAIN
- — — — — ELECTRICAL
- G — — — GAS
- C — — — COMMUNICATIONS
- — — — — UNKNOWN UTILITY
- ▨ FORMER STEEL FOUNDATION
- GPR GROUND-PENETRATING RADAR
- UV Utility VAULT

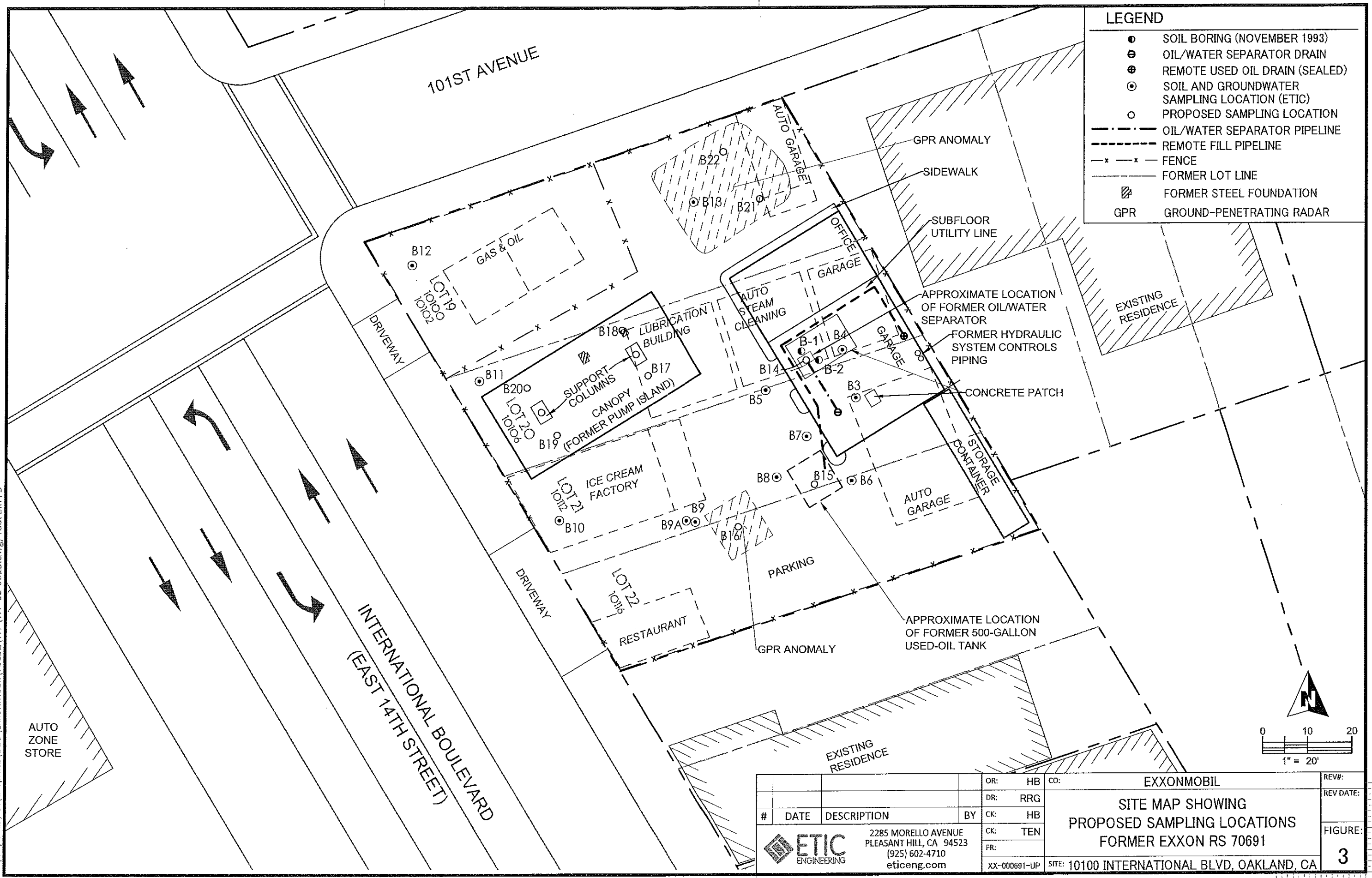
NOTE: UTILITY LOCATIONS SHOWN ARE SKETCHED FROM RECORD SCHEMATICS, AND DO NOT REPRESENT VERIFIED ALIGNMENTS.



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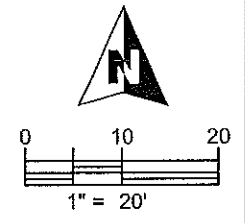


LEGEND	
●	SOIL BORING (NOVEMBER 1993)
⊖	OIL/WATER SEPARATOR DRAIN
⊕	REMOTE USED OIL DRAIN (SEALED)
⊙	SOIL AND GROUNDWATER SAMPLING LOCATION (ETIC)
○	PROPOSED SAMPLING LOCATION
— · — · —	OIL/WATER SEPARATOR PIPELINE
— · — —	REMOTE FILL PIPELINE
— x — x —	FENCE
— — —	FORMER LOT LINE
▨	FORMER STEEL FOUNDATION
GPR	GROUND-PENETRATING RADAR

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Tables

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)								Ethyl-benzene	Total Xylenes
			TPH-mo with SGC	TPH-mo without SGC	TPH-d with SGC	TPH-d without SGC	TPH-g	Benzene	Toluene			
B-1	11/18/1993	1	--	--	--	36,000a	920	0.25	9.5	4.6	49	
B-2	11/18/1993	1	--	--	--	33,000a	560	<1.0	6.7	3.8	56	
B3	2/27/2012	2	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B3	2/27/2012	5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B3	2/27/2012	10	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B3	2/27/2012	14.5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B3	2/27/2012	19.5	39	130b	15b	20b	9.1b	<0.0050	<0.0050	<0.0050	<0.0050	
B3	2/27/2012	22	24c	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B3	2/27/2012	25.5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B3	2/27/2012	27	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B3	2/28/2012	31	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B3	2/28/2012	36	<25	--	<5.0	--	<0.50	<0.0050	0.00096c	<0.0050	<0.0050	
B4	2/27/2012	2	220	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B4	2/27/2012	5	41	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B4	2/27/2012	10.5	190	--	14b	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B4	2/27/2012	13.5	1,400	1,500b	120b	140b	2,000b	<0.50	<0.50	0.058c	<0.50	
B4	2/27/2012	15.5	340	--	33b	--	270b	<0.50	<0.50	<0.50	<0.50	
B4	2/27/2012	20	28	--	5.3b	--	1.2b	<0.0050	<0.0050	<0.0050	<0.0050	
B4	2/27/2012	22	21c	--	<5.0	--	2.5b	<0.0050	<0.0050	<0.0050	<0.0050	
B4	2/27/2012	25	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B4	2/27/2012	28	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B4	2/29/2012	31.5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B4	2/29/2012	33	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B4	2/29/2012	36	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/27/2012	2	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/27/2012	5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/27/2012	10	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/27/2012	12	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/27/2012	14	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/27/2012	16	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/27/2012	18.5	140	150b	28b	32b	3.0b	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/27/2012	22	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/27/2012	25.5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/27/2012	28	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/28/2012	32	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B5	2/28/2012	38	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)								
			TPH-mo with SGC	TPH-mo without SGC	TPH-d with SGC	TPH-d without SGC	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes
B6	2/22/2012	2	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B6	2/22/2012	5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B6	2/22/2012	10	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B6	2/22/2012	14.5	<25	<25	<5.0	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B6	2/22/2012	20	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B6	2/22/2012	24	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B7	2/23/2012	2	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B7	2/23/2012	5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B7	2/24/2012	10	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B7	2/24/2012	15	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B7	2/24/2012	20	<25	<25	<5.0	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B7	2/24/2012	25	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B8	2/22/2012	2	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B8	2/22/2012	5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B8	2/23/2012	10	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B8	2/23/2012	14.5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B8	2/23/2012	20	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B8	2/23/2012	22	<25	<25	<5.0	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B8	2/23/2012	24	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B9	2/23/2012	2	<25	--	<5.0	--	<0.50	0.00023c	<0.0050	<0.0050	<0.0050
B9	2/23/2012	5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B9	2/24/2012	10	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B9	2/24/2012	14.5	<25	<25	<5.0	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B9	2/24/2012	20	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B9	2/24/2012	25	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B9A	2/28/2012	28	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B9A	2/28/2012	31	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B9A	2/28/2012	34	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B10	2/22/2012	2	<25	--	<5.0	--	<0.50	<0.0050	0.0016c	0.00035c	0.0013c
B10	2/22/2012	5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B10	2/22/2012	10	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B10	2/22/2012	15	<25	<25	<5.0	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B10	2/22/2012	20	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B10	2/22/2012	25	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B11	2/21/2012	2	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050
B11	2/21/2012	5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)								Ethyl-benzene	Total Xylenes
			TPH-mo with SGC	TPH-mo without SGC	TPH-d with SGC	TPH-d without SGC	TPH-g	Benzene	Toluene			
B11	2/21/2012	10	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B11	2/21/2012	15	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B11	2/21/2012	20	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B11	2/21/2012	22	<25	<25	<5.0	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B11	2/21/2012	24	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B12	2/21/2012	2	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B12	2/21/2012	5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B12	2/21/2012	12	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B12	2/21/2012	16	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B12	2/21/2012	20	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B12	2/21/2012	22.5	<25	<25	<5.0	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B12	2/21/2012	25	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B13	2/21/2012	2	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B13	2/21/2012	5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B13	2/22/2012	11	26	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B13	2/22/2012	11.5	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B13	2/22/2012	14.5	<25	<25	<5.0	5.8	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B13	2/22/2012	20	<25	--	<5.0	--	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B13	2/23/2012	22	<25	<25	<5.0	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B13	2/23/2012	23	<25	<25	<5.0	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	
B13	2/23/2012	25	<25	<25	<5.0	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	

Notes:

- a The concentrations reported as diesel are primarily due to the presence of a heavier petroleum product of hydrocarbon range C18-C36, possibly motor oil.
- b The chromatographic pattern does not match the chromatographic pattern of the reference fuel standard.
- c Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

mg/kg Milligrams per kilogram.
SGC Silica gel cleanup.
TPH-d Total Petroleum Hydrocarbons as diesel.
TPH-g Total Petroleum Hydrocarbons as gasoline.
TPH-mo Total Petroleum Hydrocarbons as motor oil.
-- Not analyzed.

TABLE 2 SOIL SAMPLE ANALYTICAL RESULTS - FUEL OXYGENATES AND ADDITIVES
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)						
			DIPE	ETBE	MTBE	TAME	TBA	1,2-DBA	1,2-DCA
B-1	11/18/1993	1	--	--	--	--	--	--	<0.25
B-2	11/18/1993	1	--	--	--	--	--	--	<1.0
B3	2/27/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B3	2/27/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B3	2/27/2012	10	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B3	2/27/2012	14.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B3	2/27/2012	19.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B3	2/27/2012	22	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B3	2/27/2012	25.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B3	2/27/2012	27	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B3	2/28/2012	31	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B3	2/28/2012	36	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B4	2/27/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B4	2/27/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B4	2/27/2012	10.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B4	2/27/2012	13.5	<1.0	<1.0	<0.50	<1.0	<5.0	<0.50	<0.50
B4	2/27/2012	15.5	<1.0	<1.0	<0.50	<1.0	<5.0	<0.50	<0.50
B4	2/27/2012	20	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B4	2/27/2012	22	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B4	2/27/2012	25	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B4	2/27/2012	28	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B4	2/29/2012	31.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B4	2/29/2012	33	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B4	2/29/2012	36	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/27/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/27/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/27/2012	10	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/27/2012	12	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/27/2012	14	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/27/2012	16	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/27/2012	18.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/27/2012	22	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/27/2012	25.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/27/2012	28	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/28/2012	32	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B5	2/29/2012	38	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B6	2/22/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B6	2/22/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B6	2/22/2012	10	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B6	2/22/2012	14.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B6	2/22/2012	20	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B6	2/22/2012	24	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B7	2/23/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B7	2/23/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B7	2/24/2012	10	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B7	2/24/2012	15	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B7	2/24/2012	20	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B7	2/24/2012	25	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B8	2/22/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B8	2/22/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B8	2/23/2012	10	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B8	2/23/2012	14.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B8	2/23/2012	20	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B8	2/23/2012	22	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B8	2/23/2012	24	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B9	2/23/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B9	2/23/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B9	2/24/2012	10	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050

TABLE 2 SOIL SAMPLE ANALYTICAL RESULTS - FUEL OXYGENATES AND ADDITIVES
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)						
			DIPE	ETBE	MTBE	TAME	TBA	1,2-DBA	1,2-DCA
B9	2/24/2012	14.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B9	2/24/2012	20	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B9	2/24/2012	25	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B9A	2/28/2012	28	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B9A	2/28/2012	31	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B9A	2/28/2012	34	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B10	2/22/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B10	2/22/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B10	2/22/2012	10	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B10	2/22/2012	15	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B10	2/22/2012	20	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B10	2/22/2012	25	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B11	2/21/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B11	2/21/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B11	2/21/2012	10	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B11	2/21/2012	15	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B11	2/21/2012	20	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B11	2/21/2012	22	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B11	2/21/2012	24	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B12	2/21/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B12	2/21/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B12	2/21/2012	12	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B12	2/21/2012	16	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B12	2/21/2012	20	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B12	2/21/2012	22.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B12	2/21/2012	25	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B13	2/21/2012	2	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B13	2/21/2012	5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B13	2/22/2012	11	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B13	2/22/2012	11.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B13	2/22/2012	14.5	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B13	2/22/2012	20	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B13	2/23/2012	22	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B13	2/23/2012	23	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050
B13	2/23/2012	25	<0.010	<0.010	<0.0050	<0.010	<0.050	<0.0050	<0.0050

Notes:

mg/kg Milligrams per kilogram.
 1,2-DBA 1,2-Dibromoethane.
 1,2-DCA 1,2-Dichloroethane.
 DIPE Diisopropyl ether.
 ETBE Ethyl tertiary butyl ether.
 MTBE Methyl tertiary butyl ether.
 TAME Tertiary amyl methyl ether.
 TBA Tertiary butyl alcohol.
 -- Not analyzed.

TABLE 3 SOIL SAMPLE ANALYTICAL RESULTS - VOCs^a
 FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)													
			Acetone	2-Butanone	n-BB	sec-BB	tert-BB	Carbon Disulfide	Chloroform	Chloro-methane	1,1-DCA	IPB	p-IPT	Methylene Chloride	n-PB	PCE
B-1	11/18/1993	1	<1.0	<1.0	--	--	--	<0.25	<0.25	<0.50	<0.25	--	--	0.39b	--	<0.25
B-2	11/18/1993	1	<4.0	<4.0	--	--	--	<1.0	<1.0	<2.0	<1.0	--	--	<1.0	--	<1.0
B3	2/27/2012	2	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.00060b
B3	2/27/2012	5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.00040b
B3	2/27/2012	10	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B3	2/27/2012	14.5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B3	2/27/2012	19.5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	0.00044b	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B3	2/27/2012	22	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B3	2/27/2012	25.5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B3	2/27/2012	27	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B3	2/28/2012	31	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B3	2/28/2012	36	0.0083b	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	0.0058b	<0.0050	<0.0050
B4	2/27/2012	2	0.0071b	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B4	2/27/2012	5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B4	2/27/2012	10.5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B4	2/27/2012	13.5	<12	<5.0	2.9	3.4	0.20b	<5.0	<0.50	<2.5	<0.50	0.32b	0.22b	<5.0	1.8	<0.50
B4	2/27/2012	15.5	<12	<5.0	<0.50	0.20b	0.028b	<5.0	<0.50	<2.5	<0.50	<0.50	<0.50	<5.0	0.11b	<0.50
B4	2/27/2012	20	<0.12	<0.050	<0.0050	<0.0050	<0.0050	0.00060b	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B4	2/27/2012	22	<0.12	<0.050	0.0011b	0.0015b	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	0.00057b	<0.0050
B4	2/27/2012	25	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B4	2/27/2012	28	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B4	2/29/2012	31.5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B4	2/29/2012	33	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B4	2/29/2012	36	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B5	2/27/2012	2	0.020b	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.00042b
B5	2/27/2012	5	0.011b	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.00030b
B5	2/27/2012	10	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B5	2/27/2012	12	0.0067b	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B5	2/27/2012	14	0.0093b	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B5	2/27/2012	16	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B5	2/27/2012	18.5	0.019b	<0.050	<0.0050	<0.0050	0.0014b	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B5	2/27/2012	22	0.0064b	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B5	2/27/2012	25.5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B5	2/27/2012	28	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B5	2/28/2012	32	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B5	2/29/2012	38	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B6	2/22/2012	2	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.0035b
B6	2/22/2012	5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.0033b
B6	2/22/2012	10	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.00056b
B6	2/22/2012	14.5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.00034b
B6	2/22/2012	20	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B6	2/22/2012	24	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050

TABLE 3 SOIL SAMPLE ANALYTICAL RESULTS - VOCs^a
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)													
			Acetone	2-Butanone	n-BB	sec-BB	tert-BB	Carbon Disulfide	Chloroform	Chloro-methane	1,1-DCA	IPB	p-IPT	Methylene Chloride	n-PB	PCE
B12	2/21/2012	25	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B13	2/21/2012	2	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B13	2/21/2012	5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B13	2/22/2012	11	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B13	2/22/2012	11.5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B13	2/22/2012	14.5	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B13	2/22/2012	20	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B13	2/23/2012	22	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B13	2/23/2012	23	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050
B13	2/23/2012	25	<0.12	<0.050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050

- Notes:
- a Samples were analyzed for the full suite of VOCs. Selected compounds, including detections, are shown in this table.
 - b Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
 - c Analyte was detected in the associated method blank.

mg/kg Milligrams per kilogram.
1,1-DCA 1,1-Dichloroethane.
IPB Isopropylbenzene.
n-BB n-Butylbenzene.
sec-BB sec-Butylbenzene.
tert-BB tert-Butylbenzene.
p-IPT p-Isopropyltoluene.
n-PB n-Propylbenzene.
PCE Tetrachloroethene.
VOCs Volatile organic compounds.

TABLE 4 SOIL SAMPLE ANALYTICAL RESULTS - SVOCs^a
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)							PCP
			Benzoic Acid	Bis (2-Ethylhexyl) Phthalate	Butyl Benzyl Phthalate	Di-n-Butyl Phthalate	1,4-Dichlorobenzene	1,2,4-Trichlorobenzene ^b		
B-1	11/18/1993	1	<17	9.8	7.6	<3.3	<3.3	<3.3	<17	
B-2	11/18/1993	1	<17	9.8	<3.3	<3.3	<3.3	<3.3	<17	
B3	2/27/2012	2	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/0.0050	<2.5	
B3	2/27/2012	5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/0.0050	<2.5	
B3	2/27/2012	10	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/0.0050	<2.5	
B3	2/27/2012	14.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/0.0050	<2.5	
B3	2/27/2012	19.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/0.0050	<2.5	
B3	2/27/2012	22	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/0.0050	<2.5	
B3	2/27/2012	25.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/0.0050	<2.5	
B3	2/27/2012	27	<2.5	<0.50	<0.50	<0.50	0.15c	0.17c/<0.0050	<2.5	
B3	2/28/2012	31	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/0.0050	<2.5	
B3	2/28/2012	36	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/0.0050	<2.5	
B4	2/27/2012	2	<5.0	6.6	<1.0	<1.0	<1.0	<1.0/<0.0050	<5.0	
B4	2/27/2012	5	<2.5	<0.50	0.57	<0.50	<0.50	<0.50/<0.0050	<2.5	
B4	2/27/2012	10.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B4	2/27/2012	13.5	<2.5	0.25c	<0.50	0.12c	<0.50	<0.50/<0.50	<2.5	
B4	2/27/2012	15.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.50	<2.5	
B4	2/27/2012	20	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B4	2/27/2012	22	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B4	2/27/2012	25	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B4	2/27/2012	28	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B4	2/29/2012	31.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B4	2/29/2012	33	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B4	2/29/2012	36	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/27/2012	2	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/27/2012	5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/27/2012	10	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/27/2012	12	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/27/2012	14	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/27/2012	16	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/27/2012	18.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/27/2012	22	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/27/2012	25.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/27/2012	28	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/28/2012	32	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B5	2/29/2012	38	<2.5	<0.50	<0.50	<0.50	<0.50	0.14c/<0.0050	<2.5	
B6	2/22/2012	2	--	--	--	--	--	--/<0.0050	--	
B6	2/22/2012	5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B6	2/22/2012	10	--	--	--	--	--	--/<0.0050	--	
B6	2/22/2012	14.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B6	2/22/2012	20	--	--	--	--	--	--/<0.0050	--	
B6	2/22/2012	24	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B7	2/23/2012	2	--	--	--	--	--	--/<0.0050	--	
B7	2/23/2012	5	--	--	--	--	--	--/<0.0050	--	
B7	2/24/2012	10	--	--	--	--	--	--/<0.0050	--	
B7	2/24/2012	15	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B7	2/24/2012	20	--	--	--	--	--	--/<0.0050	--	
B7	2/24/2012	25	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B8	2/22/2012	2	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B8	2/22/2012	5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B8	2/23/2012	10	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B8	2/23/2012	14.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B8	2/23/2012	20	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B8	2/23/2012	22	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B8	2/23/2012	24	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	
B9	2/23/2012	2	--	--	--	--	--	--/<0.0050	--	
B9	2/23/2012	5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/<0.0050	<2.5	

TABLE 4 SOIL SAMPLE ANALYTICAL RESULTS - SVOCs^a
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)							PCP
			Benzoic Acid	Bis (2-Ethylhexyl) Phthalate	Butyl Benzyl Phthalate	Di-n-Butyl Phthalate	1,4-Dichlorobenzene	1,2,4-Trichlorobenzene ^b		
B9	2/24/2012	10	--	--	--	--	--	--/ <0.0050	--	
B9	2/24/2012	14.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B9	2/24/2012	20	--	--	--	--	--	--/ <0.0050	--	
B9	2/24/2012	25	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B9A	2/28/2012	28	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B9A	2/28/2012	31	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B9A	2/28/2012	34	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B10	2/22/2012	2	--	--	--	--	--	--/ <0.0050	--	
B10	2/22/2012	5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B10	2/22/2012	10	--	--	--	--	--	--/ <0.0050	--	
B10	2/22/2012	15	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B10	2/22/2012	20	--	--	--	--	--	--/ <0.0050	--	
B10	2/22/2012	25	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B11	2/21/2012	2	--	--	--	--	--	--/ <0.0050	--	
B11	2/21/2012	5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B11	2/21/2012	10	--	--	--	--	--	--/ <0.0050	--	
B11	2/21/2012	15	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B11	2/21/2012	20	--	--	--	--	--	--/ <0.0050	--	
B11	2/21/2012	22	--	--	--	--	--	--/ <0.0050	--	
B11	2/21/2012	24	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B12	2/21/2012	2	--	--	--	--	--	--/ <0.0050	--	
B12	2/21/2012	5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B12	2/21/2012	12	--	--	--	--	--	--/ <0.0050	--	
B12	2/21/2012	16	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B12	2/21/2012	20	--	--	--	--	--	--/ <0.0050	--	
B12	2/21/2012	22.5	--	--	--	--	--	--/ <0.0050	--	
B12	2/21/2012	25	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B13	2/21/2012	2	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B13	2/21/2012	5	--	--	--	--	--	--/ <0.0050	--	
B13	2/22/2012	11	--	--	--	--	--	--/ <0.0050	--	
B13	2/22/2012	11.5	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B13	2/22/2012	14.5	--	--	--	--	--	--/ <0.0050	--	
B13	2/22/2012	20	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	
B13	2/23/2012	22	--	--	--	--	--	--/ <0.0050	--	
B13	2/23/2012	23	--	--	--	--	--	--/ <0.0050	--	
B13	2/23/2012	25	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50/ <0.0050	<2.5	

- Notes:
- a Samples were analyzed for the full suite of SVOCs. Selected compounds, including detections, are shown in this table.
 - b 1,2,4-Trichlorobenzene was analyzed with EPA Method 8270C and EPA Method 8260B. The results are shown as 8270C result/8260B result.
 - c Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

mg/kg Milligrams per kilogram.
PCP Pentachlorophenol.
SVOCs Semivolatile organic compounds.
-- Not analyzed.

TABLE 5 SOIL SAMPLE ANALYTICAL RESULTS - PAHs^a AND PCBs
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)				Concentration (µg/kg)
			Accenaphthene	2-Methylnaphthalene	1-Methylnaphthalene	Naphthalene ^b	PCBs
B-1	11/18/1993	1	<3.3	11	--	8.8/--	--
B-2	11/18/1993	1	<3.3	24	--	18/--	--
B3	2/27/2012	2	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B3	2/27/2012	5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B3	2/27/2012	10	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B3	2/27/2012	14.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B3	2/27/2012	19.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B3	2/27/2012	22	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B3	2/27/2012	25.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B3	2/27/2012	27	0.11c	<0.50	<0.50	0.24c/<0.050	<50
B3	2/28/2012	31	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B3	2/28/2012	36	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B4	2/27/2012	2	<1.0	<1.0	<1.0	<1.0/<0.050	<50
B4	2/27/2012	5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B4	2/27/2012	10.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B4	2/27/2012	13.5	<0.50	3.9	2.6	1.9/3.7c	<50
B4	2/27/2012	15.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B4	2/27/2012	20	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B4	2/27/2012	22	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B4	2/27/2012	25	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B4	2/27/2012	28	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B4	2/29/2012	31.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B4	2/29/2012	33	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B4	2/29/2012	36	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/27/2012	2	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/27/2012	5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/27/2012	10	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/27/2012	12	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/27/2012	14	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/27/2012	16	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/27/2012	18.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/27/2012	22	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/27/2012	25.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/27/2012	28	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/28/2012	32	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B5	2/29/2012	38	<0.50	<0.50	<0.50	0.13c/<0.050	<50
B6	2/22/2012	2	--	--	--	--/<0.050	--
B6	2/22/2012	5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B6	2/22/2012	10	--	--	--	--/<0.050	--
B6	2/22/2012	14.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B6	2/22/2012	20	--	--	--	--/<0.050	--
B6	2/22/2012	24	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B7	2/23/2012	2	--	--	--	--/<0.050	--
B7	2/23/2012	5	--	--	--	--/<0.050	--
B7	2/24/2012	10	--	--	--	--/<0.050	--
B7	2/24/2012	15	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B7	2/24/2012	20	--	--	--	--/<0.050	--
B7	2/24/2012	25	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B8	2/22/2012	2	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B8	2/22/2012	5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B8	2/23/2012	10	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B8	2/23/2012	14.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B8	2/23/2012	20	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B8	2/23/2012	22	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B8	2/23/2012	24	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B9	2/23/2012	2	--	--	--	--/<0.050	--
B9	2/23/2012	5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B9	2/24/2012	10	--	--	--	--/<0.050	--
B9	2/24/2012	14.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50

TABLE 5 SOIL SAMPLE ANALYTICAL RESULTS - PAHs^a AND PCBs
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)				Concentration (µg/kg)
			Accnaphthene	2-Methylnaphthalene	1-Methylnaphthalene	Naphthalene ^b	PCBs
B9	2/24/2012	20	--	--	--	--/ <0.050	--
B9	2/24/2012	25	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B9A	2/28/2012	28	--	--	--	--/ <0.050	--
B9A	2/28/2012	31	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B9A	2/28/2012	34	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B10	2/22/2012	2	--	--	--	--/ <0.050	--
B10	2/22/2012	5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B10	2/22/2012	10	--	--	--	--/ <0.050	--
B10	2/22/2012	15	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B10	2/22/2012	20	--	--	--	--/ <0.050	--
B10	2/22/2012	25	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B11	2/21/2012	2	--	--	--	--/ <0.050	--
B11	2/21/2012	5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B11	2/21/2012	10	--	--	--	--/ <0.050	--
B11	2/21/2012	15	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B11	2/21/2012	20	--	--	--	--/ <0.050	--
B11	2/21/2012	22	--	--	--	--/ <0.050	--
B11	2/21/2012	24	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B12	2/21/2012	2	--	--	--	--/ <0.050	--
B12	2/21/2012	5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B12	2/21/2012	12	--	--	--	--/ <0.050	--
B12	2/21/2012	16	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B12	2/21/2012	20	--	--	--	--/ <0.050	--
B12	2/21/2012	22.5	--	--	--	--/ <0.050	--
B12	2/21/2012	25	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B13	2/21/2012	2	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B13	2/21/2012	5	--	--	--	--/ <0.050	--
B13	2/22/2012	11	--	--	--	--/ <0.050	--
B13	2/22/2012	11.5	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B13	2/22/2012	14.5	--	--	--	--/ <0.050	--
B13	2/22/2012	20	<0.50	<0.50	<0.50	<0.50/<0.050	<50
B13	2/23/2012	22	--	--	--	--/ <0.050	--
B13	2/23/2012	23	--	--	--	--/ <0.050	--
B13	2/23/2012	25	<0.50	<0.50	<0.50	<0.50/<0.050	<50

Notes:

- a Selected PAHs, including detections, are shown in this table.
- b Naphthalene was analyzed with EPA Method 8270C and EPA Method 8260B. The results are shown as 8270C result/8260B result.
- c Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

mg/kg Milligrams per kilogram.
µg/kg Micrograms per kilogram.
PAHs Polycyclic aromatic hydrocarbons.
PCBs Polychlorinated biphenyls (Aroclor 1016, 1221, 1232, 1242, 1248, 1254, 1260, and 1262).
-- Not analyzed.

TABLE 6 SOIL SAMPLE ANALYTICAL RESULTS - METALS
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)				
			Cadmium	Chromium	Lead	Nickel	Zinc
B-1	11/18/1993	1	3.9	27.6	1,140	29.7	340
B-2	11/18/1993	1	23.1	32.0	3,800	32.1	958
B3	2/27/2012	2	0.571	36.3	7.10	52.8	47.5
B3	2/27/2012	5	0.345a	32.9	5.71	41.1	35.3
B3	2/27/2012	10	0.390a	31.9	5.29	45.7	38.0
B3	2/27/2012	14.5	0.376a	32.0	5.26	37.5	38.7
B3	2/27/2012	19.5	0.793	53.2	9.25	73.6	62.0
B3	2/27/2012	22	0.513	42.1	5.20	58.7	45.2
B3	2/27/2012	25.5	0.393a	43.8	4.55	49.3	42.6
B3	2/27/2012	27	0.707	54.1	6.86	83.6	55.0
B3	2/28/2012	31	0.806	43.9	7.54	66.2	59.1
B3	2/28/2012	36	0.867	29.1	5.57	41.0	36.4
B4	2/27/2012	2	0.534	30.3	11.8	39.4	49.8
B4	2/27/2012	5	1.15	42.2	117	37.1	211
B4	2/27/2012	10.5	0.356a	30.1	6.32	42.4	34.7
B4	2/27/2012	13.5	0.544	36.6	7.09	54.8	43.9
B4	2/27/2012	15.5	0.555	42.3	6.57	54.2	50.1
B4	2/27/2012	20	1.34	57.0	8.90	126	62.8
B4	2/27/2012	22	0.586	45.4	8.01	76.3	52.2
B4	2/27/2012	25	0.491a	38.4	5.95	60.5	41.1
B4	2/27/2012	28	0.607	42.6	5.86	59.0	49.0
B4	2/29/2012	31.5	0.359a	31.2	5.12	40.7	37.0
B4	2/29/2012	33	0.366a	32.0	5.16	44.0	38.0
B4	2/29/2012	36	0.709	32.1	6.18	45.8	40.6
B5	2/27/2012	2	0.523	35.7	6.91	51.6	46.2
B5	2/27/2012	5	0.581	39.6	7.05	58.1	45.5
B5	2/27/2012	10	0.288a	30.5	4.68	35.2	32.5
B5	2/27/2012	12	0.367a	26.3	4.61	38.8	30.8
B5	2/27/2012	14	0.532	32.1	5.77	48.4	37.9
B5	2/27/2012	16	0.603	36.5	6.84	57.0	50.5
B5	2/27/2012	18.5	0.713	46.6	8.43	60.2	59.5
B5	2/27/2012	22	0.641	48.0	8.27	81.2	52.3
B5	2/27/2012	25.5	0.700	44.5	7.33	88.4	46.7
B5	2/27/2012	28	0.546	40.9	5.38	57.2	48.0
B5	2/28/2012	32	0.413a	34.9	5.37	47.2	40.1
B5	2/29/2012	38	0.301a	26.3	3.68	34.8	30.6
B6	2/22/2012	2	--	--	--	--	--
B6	2/22/2012	5	--	--	--	--	--
B6	2/22/2012	10	--	--	--	--	--
B6	2/22/2012	14.5	--	--	--	--	--
B6	2/22/2012	20	--	--	--	--	--
B6	2/22/2012	24	--	--	--	--	--
B7	2/23/2012	2	0.650	36.3	8.13	56.3	69.9
B7	2/23/2012	5	0.617	47.9	8.20	53.4	49.7
B7	2/24/2012	10	0.287a	24.5	4.33	33.3	30.7
B7	2/24/2012	15	0.522	35.4	6.14	44.3	44.9
B7	2/24/2012	20	0.756	56.1	9.26	61.4	68.8
B7	2/24/2012	25	0.556	39.0	6.67	54.9	42.9
B8	2/22/2012	2	0.549	34.6	5.96	51.7	44.4
B8	2/22/2012	5	0.571	43.1	7.53	52.2	47.0

TABLE 6 SOIL SAMPLE ANALYTICAL RESULTS - METALS
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/kg)				
			Cadmium	Chromium	Lead	Nickel	Zinc
B8	2/23/2012	10	0.272a	25.0	3.93	26.6	27.2
B8	2/23/2012	14.5	0.496a	25.8	5.25	42.7	34.1
B8	2/23/2012	20	0.847	51.5	7.69	90.9	60.8
B8	2/23/2012	22	0.469a	38.4	5.36	52.2	42.5
B8	2/23/2012	24	0.594	47.3	7.88	75.4	59.4
B9	2/23/2012	2	0.505	33.3	6.04	49.1	42.6
B9	2/23/2012	5	0.651	46.1	7.82	73.9	49.6
B9	2/24/2012	10	0.231a	25.6	4.26	31.8	28.1
B9	2/24/2012	14.5	0.474a	30.4	5.60	42.9	39.8
B9	2/24/2012	20	1.04	47.1	9.18	97.8	58.7
B9	2/24/2012	25	0.739	43.5	6.89	72.9	48.6
B9A	2/28/2012	28	0.737	51.8	8.21	74.6	69.0
B9A	2/28/2012	31	0.352a	32.8	5.37	44.8	39.7
B9A	2/28/2012	34	0.332a	28.3	4.91	40.7	32.9
B10	2/22/2012	2	--	--	--	--	--
B10	2/22/2012	5	--	--	--	--	--
B10	2/22/2012	10	--	--	--	--	--
B10	2/22/2012	15	--	--	--	--	--
B10	2/22/2012	20	--	--	--	--	--
B10	2/22/2012	25	--	--	--	--	--
B11	2/21/2012	2	0.613	36.4	5.89	51.4	45.5
B11	2/21/2012	5	0.524	40.2	6.69	54.7	44.9
B11	2/21/2012	10	0.388a	30.1	5.44	40.8	33.4
B11	2/21/2012	15	0.685	39.9	6.93	60.7	50.1
B11	2/21/2012	20	0.381a	43.8	4.22	47.0	50.2
B11	2/21/2012	22	0.521	39.3	6.57	73.4	49.2
B11	2/21/2012	24	0.452a	32.4	5.05	48.8	37.1
B12	2/21/2012	2	--	--	--	--	--
B12	2/21/2012	5	--	--	--	--	--
B12	2/21/2012	12	--	--	--	--	--
B12	2/21/2012	16	--	--	--	--	--
B12	2/21/2012	20	--	--	--	--	--
B12	2/21/2012	22.5	--	--	--	--	--
B12	2/21/2012	25	--	--	--	--	--
B13	2/21/2012	2	--	--	--	--	--
B13	2/21/2012	5	--	--	--	--	--
B13	2/22/2012	11	--	--	--	--	--
B13	2/22/2012	11.5	--	--	--	--	--
B13	2/22/2012	14.5	--	--	--	--	--
B13	2/22/2012	20	--	--	--	--	--
B13	2/23/2012	22	--	--	--	--	--
B13	2/23/2012	23	--	--	--	--	--
B13	2/23/2012	25	--	--	--	--	--

Notes:

a Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

mg/kg Milligrams per kilogram.

-- Not analyzed.

TABLE 7 GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR TEMPORARY SOIL BORINGS - PETROLEUM HYDROCARBONS
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (µg/L)								
			TPH-mo with SGC	TPH-mo without SGC	TPH-d with SGC	TPH-d without SGC	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes
B3	2/28/2012	24-36	<250	<250	<50	130	<50	0.39a	<0.50	<0.50	<0.50
B4	2/29/2012	32-36	<250	<250	<50	110	180b	<0.50	<0.50	<0.50	<0.50
B5	2/28/2012	24-38	<250	<250	<50	78	<50	<0.50	<0.50	<0.50	<0.50
B6	2/23/2012	20-24	<280	--	<56	--	<50	<0.50	<0.50	<0.50	<0.50
B7	2/24/2012	20-25	<250	<250	<50	<50	130b	<0.50	<0.50	<0.50	<0.50
B8	2/24/2012	20-24	<250	--	<50	--	<50	<0.50	<0.50	<0.50	<0.50
B9A	2/28/2012	28-34	<250	<250	<50	<50	<50	<0.50	<0.50	<0.50	<0.50
B10	2/22/2012	12-25	<250	--	<50	--	<50	<0.50	<0.50	<0.50	<0.50
B11	2/22/2012	20-24	<250	--	<50	--	<50	<0.50	<0.50	<0.50	<0.50
B12	2/21/2012	20-25	<250	--	<50	--	<50	<0.50	<0.50	<0.50	<0.50
B13	2/23/2012	20-25	<250	--	<50	--	<50	<0.50	<0.50	<0.50	<0.50

Notes:
a Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
b The chromatographic pattern does not match the chromatographic pattern of the reference fuel standard.

µg/L Micrograms per liter.
SGC Silica gel cleanup.
TPH-d Total Petroleum Hydrocarbons as diesel.
TPH-g Total Petroleum Hydrocarbons as gasoline.
TPH-mo Total Petroleum Hydrocarbons as motor oil.
-- Not analyzed.

TABLE 8 GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR TEMPORARY SOIL BORINGS - FUEL OXYGENATES AND ADDITIVES
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (µg/L)						
			DIPE	ETBE	MTBE	TAME	TBA	1,2-DBA	1,2-DCA
B3	02/28/12	24-36	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50
B4	02/29/12	32-36	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50
B5	02/28/12	24-38	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50
B6	02/23/12	20-24	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50
B7	02/24/12	20-25	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50
B8	02/24/12	20-24	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50
B9A	02/28/12	28-34	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50
B10	02/22/12	12-25	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50
B11	02/22/12	20-24	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50
B12	2/21/2012	20-25	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50
B13	2/23/2012	20-25	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50

Notes:

µg/L Micrograms per liter.
 1,2-DBA 1,2-Dibromoethane.
 1,2-DCA 1,2-Dichloroethane.
 DIPE Diisopropyl ether.
 ETBE Ethyl tertiary butyl ether.
 MTBE Methyl tertiary butyl ether.
 TAME Tertiary amyl methyl ether.
 TBA Tertiary butyl alcohol.

TABLE 9 GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR TEMPORARY SOIL BORINGS - VOCs^a
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (µg/L)													
			Acetone	2-Butanone	n-BB	sec-BB	tert-BB	Carbon Disulfide	Chloroform	Chloro-methane	1,1-DCA	IPB	p-IPT	Methylene Chloride	n-PB	PCE
B3	02/28/12	24-36	<10	<5.0	<0.50	<0.50	<0.50	<1.0	0.81	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
B4	02/29/12	32-36	<10	<5.0	0.50b	0.97	0.099b	<1.0	<0.50	<0.50	<0.50	0.16b	<0.50	<1.0	0.62	<0.50
B5	02/28/12	24-38	5.2b	1.9b	<0.50	<0.50	<0.50	<1.0	0.30b	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
B6	2/23/2012	20-24	<10	<5.0	<0.50	<0.50	<0.50	<1.0	0.78	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
B7	2/24/2012	20-25	<10	<5.0	0.082b	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
B8	2/24/2012	20-24	<10	<5.0	<0.50	<0.50	<0.50	<1.0	0.80	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
B9A	2/28/2012	28-34	<10	<5.0	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	0.17b	<0.50	<0.50	<1.0	<0.50	<0.50
B10	2/22/2012	12-25	<10	<5.0	<0.50	<0.50	<0.50	<1.0	0.61	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
B11	2/22/2012	20-24	<10	<5.0	<0.50	<0.50	<0.50	<1.0	2.9	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
B12	2/21/2012	20-25	<10	<5.0	<0.50	<0.50	<0.50	<1.0	0.71	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
B13	2/23/2012	20-25	<10	<5.0	<0.50	<0.50	<0.50	<1.0	0.95	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50

Notes:

- a Samples were analyzed for the full suite of VOCs. Selected compounds, including detections, are shown in this table.
- b Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

µg/L Micrograms per liter.
1,1-DCA 1,1-Dichloroethane.
IPB Isopropylbenzene.
n-BB n-Butylbenzene.
sec-BB sec-Butylbenzene.
tert-BB tert-Butylbenzene.
p-IPT p-Isopropyltoluene.
n-PB n-Propylbenzene.
PCE Tetrachloroethene.
VOCs Volatile organic compounds.

TABLE 10 GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR TEMPORARY SOIL BORINGS - SVOCs^a
 FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (µg/L)							PCP
			Benzoic Acid	Bis (2-Ethylhexyl) Phthalate	Butyl Benzyl Phthalate	Di-n-Butyl Phthalate	1,4-Dichlorobenzene	1,2,4-Trichlorobenzene ^b		
B3	2/28/2012	24-36	95	<10	<10	<10	<10	<10	<10/<0.50	<10
B4	2/29/2012	32-36	<50	<10	<10	<10	<10	<10	<10/<0.50	<10
B5	2/28/2012	24-38	<50	<10	<10	<10	<10	<10	<10/<0.50	<10
B6	2/23/2012	20-24	<50	<10	<10	<10	<10	<10	<10/<0.50	<10
B7	2/24/2012	20-25	<50	<10	<10	<10	<10	<10	<10/<0.50	<10
B8	2/24/2012	20-24	<50	<10	<10	<10	<10	<10	<10/<0.50	<10
B9A	2/28/2012	28-34	<50	<10	<10	<10	<10	<10	<10/<0.50	<10
B10	2/22/2012	12-25	<50	<10	<10	<10	<10	<10	<10/<0.50	<10
B11	2/22/2012	20-24	<50	<10	<10	<10	<10	<10	<10/<0.50	<10
B12	2/21/2012	20-25	<50	<10	<10	<10	<10	<10	<10/<0.50	<10
B13	2/23/2012	20-25	<50	<10	<10	<10	<10	<10	<10/<0.50	<10

- Notes:
- a Samples were analyzed for the full suite of SVOCs. Selected compounds, including detections, are shown in this table.
 - b 1,2,4-Trichlorobenzene was analyzed with EPA Method 8270C and EPA Method 8260B. The results are shown as 8270C result/8260B result.
- µg/L Micrograms per liter.
 PCP Pentachlorophenol.
 SVOCs Semivolatile organic compounds.

TABLE 11 GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR TEMPORARY SOIL BORINGS - PAHs^a AND PCBs
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (µg/L)				PCBs
			Acenaphthene	2-Methylnaphthalene	1-Methylnaphthalene	Naphthalene ^b	
B3	2/28/2012	24-36	<10	<10	<10	<10/<1.0	<1.2
B4	2/29/2012	32-36	<10	<10	<10	<10/1.1c	<1.0
B5	2/28/2012	24-38	<10	<10	<10	<10/<1.0	<1.0
B6	2/23/2012	20-24	<10	<10	<10	<10/<1.0	<1.0
B7	2/24/2012	20-25	<10	<10	<10	<10/<1.0	<1.0
B8	2/24/2012	20-24	<10	<10	<10	<10/<1.0	<1.0
B9A	2/28/2012	28-34	<10	<10	<10	<10/<1.0	<1.0
B10	2/22/2012	12-25	<10	<10	<10	<10/<1.0	<1.0
B11	2/22/2012	20-24	<10	<10	<10	<10/<1.0	<1.0
B12	2/21/2012	20-25	<10	<10	<10	<10/<1.0	<1.0
B13	2/23/2012	20-25	<10	<10	<10	<10/<1.0	<1.0

Notes:

- a Selected PAHs, including detections, are shown in this table.
- b Naphthalene was analyzed with EPA Method 8270C and EPA Method 8260B. The results are shown as 8270C result/8260B result.
- c Analyte was detected in the associated method blank.

µg/L Micrograms per liter.
 PAHs Polycyclic aromatic hydrocarbons.
 PCBs Polychlorinated biphenyls (Aroclor 1016, 1221, 1232, 1242, 1248, 1254, 1260, and 1262).

TABLE 12 GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR TEMPORARY SOIL BORINGS - METALS
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sample Location	Date	Depth (feet)	Concentration (mg/L)				
			Cadmium	Chromium	Lead	Nickel	Zinc
B3	2/28/2012	24-36	<0.0100	<0.0100	<0.0100	0.00406a	0.0276
B4	2/29/2012	32-36	<0.0100	<0.0100	<0.0100	0.00414a	0.0143
B5	2/28/2012	24-38	<0.0100	<0.0100	<0.0100	0.00327a	0.0560
B6	2/23/2012	20-24	<0.0100	<0.0100	<0.0100	0.00405a	0.0166
B7	2/24/2012	20-25	<0.0100	<0.0100	<0.0100	0.00448a	0.00612a
B8	2/24/2012	20-24	<0.0100	<0.0100	<0.0100	0.00358a	0.0742
B9A	2/28/2012	28-34	<0.0100	<0.0100	<0.0100	<0.0100	0.0509
B10	2/22/2012	12-25	<0.0100	0.00331a	<0.0100	0.00356a	0.0612
B11	2/22/2012	20-24	<0.0100	<0.0100	<0.0100	0.00330a	0.00388a
B12	2/21/2012	20-25	<0.0100	<0.0100	<0.0100	0.00371a	0.0165
B13	2/23/2012	20-25	<0.0100	<0.0100	<0.0100	<0.0100	0.0276

Notes:

a Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

mg/L Milligrams per liter.

TABLE 13 PROPOSED SOIL SAMPLING AND ANALYSIS PLAN
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sampling Location	Approximate Depth (feet bgs)	TPH-mo with SGC	TPH-mo without SGC	TPH-d with SGC	TPH-d without SGC	TPH-g	BTEX	Fuel Oxygenates and Additives	VOCs	SVOCs	PAHs and PCBs	LUFT Five Metals**
B14	2		X		X	X	X	X				
	5		X		X	X						
	10		X		X	X			X	X	X	
	13.5	X	X	X	X	X			X	X	X	X
	15		X		X	X			X	X	X	
	18		X		X	X			X	X	X	
	20		X		X	X			X	X	X	
B15	2		X		X	X	X	X				
	5		X		X	X						
	10		X		X	X			X	X	X	
	15	X	X	X	X	X			X	X	X	X
	20		X		X	X			X	X	X	
B16*	2		X		X	X	X	X				
	5		X		X	X			X	X	X	
	10		X		X	X			X	X	X	
	15		X		X	X			X	X	X	
	20		X		X	X			X	X	X	
B17*	3		X		X	X	X	X				
	6		X		X	X	X	X				
	10		X		X	X	X	X				
B18	3		X		X	X	X	X				
	6		X		X	X	X	X				
	10		X		X	X	X	X				
	15		X		X	X	X	X				
	20		X		X	X	X	X				
B19*	3		X		X	X	X	X				
	6		X		X	X	X	X				
	10		X		X	X	X	X				
B20*	3		X		X	X	X	X				
	6		X		X	X	X	X				
	10		X		X	X	X	X				

TABLE 13 PROPOSED SOIL SAMPLING AND ANALYSIS PLAN
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sampling Location	Approximate Depth (feet bgs)	TPH-mo with SGC	TPH-mo without SGC	TPH-d with SGC	TPH-d without SGC	TPH-g	BTEX	Fuel Oxygenates and Additives	VOCs	SVOCs	PAHs and PCBs	LUFT Five Metals**
B21*	2		X		X	X	X	X				
	5		X		X	X	X	X				
	11		X		X	X	X	X				
	15		X		X	X	X	X				
B22*	2		X		X	X	X	X				
	5		X		X	X	X	X				
	11		X		X	X	X	X				
	15		X		X	X	X	X				

Notes:

bgs Below ground surface.

* Boring will be advanced deeper and additional soil and/or groundwater samples will be collected only if impacted soil is encountered during drilling.

** Based upon the petroleum hydrocarbon analytical data, additional samples (beyond those indicated) may be analyzed for metals.

SGC Silica gel cleanup.

TPH-d Total Petroleum Hydrocarbons as diesel by EPA Method 8015B (M).

TPH-g Total Petroleum Hydrocarbons as gasoline by EPA Method 8015B (M).

TPH-mo Total Petroleum Hydrocarbons as motor oil by EPA Method 8015B (M).

BTEX Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260B

Fuel Oxygenates and Additives: Diisopropyl ether, ethyl tertiary butyl ether, methyl tertiary butyl ether, tertiary amyl methyl ether, tertiary butyl alcohol, 1,2-dibromoethane, and 1,2-dichloroethane by EPA Method 8260B.

VOCs Volatile organic compounds by EPA Method 8260B.

SVOCs Semivolatile organic compounds including polycyclic aromatic hydrocarbons (PAHs), and pentachlorophenol (PCP) by EPA Method 8270C.

PCBs Polychlorinated biphenyls (Aroclor 1016, 1221, 1232, 1242, 1248, 1254, 1260, and 1262) by EPA Method 8082.

LUFT Five Metals Cadmium, chromium, lead, nickel, and zinc by EPA Method 6010B.

TABLE 14 PROPOSED GRAB GROUNDWATER SAMPLING AND ANALYSIS PLAN
FORMER EXXON RS 70691, 10100 INTERNATIONAL BOULEVARD, OAKLAND, CALIFORNIA

Sampling Location*	Approximate Depth (feet bgs)	TPH-mo with SGC	TPH-mo without SGC	TPH-d with SGC	TPH-d without SGC	TPH-g	VOCs	SVOCs	PCBs	Dissolved LUFT Five Metals
B14	14 - 20	X	X	X	X	X	X	X	X	X
B15	14 - 20	X	X	X	X	X	X	X	X	X
B18	14 - 20	X	X	X	X	X	X	X	X	X

Notes:

- bgs Below ground surface.
- * Groundwater samples will be collected at other locations only if impacted soil is encountered during drilling.
- SGC Silica gel cleanup.
- TPH-d Total Petroleum Hydrocarbons as diesel by EPA Method 8015B (M).
- TPH-g Total Petroleum Hydrocarbons as gasoline by EPA Method 8015B (M).
- TPH-mo Total Petroleum Hydrocarbons as motor oil by EPA Method 8015B (M).
- VOCs Volatile organic compounds by EPA Method 8260B.
- SVOCs Semivolatile organic compounds including polycyclic aromatic hydrocarbons (PAHs), and pentachlorophenol (PCP) by EPA Method 8270C.
- PCBs Polychlorinated biphenyls (Aroclor 1016, 1221, 1232, 1242, 1248, 1254, 1260, and 1262) by EPA Method 8082.
- LUFT Five Metals Dissolved metals: cadmium, chromium, lead, nickel, and zinc by EPA Method 6010B or 200.7.

Appendix A
Regulatory Correspondence

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director



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

June 21, 2012

Mr. Jose Saucedo, Dodg Corporation
4849 East 12th Street
Oakland, CA 94601-5107

Max and Fay Smith
Unknown Address

Mr. Tony and Ms. Fee Ling Chan
78 Park Manor Drive
Daly City, CA 94015

Ms. Jennifer Sedlachek
ExxonMobil
4096 Piedmont, #194
Oakland, CA 94611
(sent via electronic mail to:
Jennifer.C.Sedlachek@exxonmobil.com)

Subject: Request for Limited Site Assessment Work Plan; Fuel Leak Case No. RO0000162 and GeoTracker Global ID T0600102217, Quan's Automotive / ExxonMobil Site #70691, 10100 International Blvd / E. 14th Street, Oakland, CA 94603

Dear Ladies and Gentlemen:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the *Preferential Pathway Survey Report*, dated April 3, 2012, and *Soil and Groundwater Investigation Report*, dated April 4, 2012. Both were prepared and submitted on your behalf by ETIC Engineering, Inc. (ETIC). Thank you for submitting the reports. The reports documented the installation of 11 soil bores, and the collection of soil and grab groundwater samples. The referenced documents detected up to 1,500 mg/kg TPHmo (1,400 mg/kg with silica gel cleanup [SGC]), 140 mg/kg TPHd (120 mg/kg with SGC), 2,000 mg/kg TPHg (chromatographic pattern does not appear to match gasoline fuel hydrocarbon pattern), and 0.00023 mg/kg benzene in proximity to the former location of an oil-water separator inside the former station building. However, in general the investigation predominately documented only trace concentrations of petroleum hydrocarbons in soil at the site, while low concentrations of petroleum hydrocarbons were detected in grab groundwater samples (up to 130 µg/l TPHd [<50 with SGC]), up to 180 µg/l TPHg, and 0.39 µg/l benzene). Fuel oxygenates and lead scavengers were not detected in these two media (however acetone, carbon disulfide, methylene chloride, PCE, and other VOCs and SVOCs were consistently detected at essentially trace concentrations). The results are encouraging for the site as a whole; however, based on the data generated a limited set of data gaps appear to be present. As a consequence, and based on ACEH staff review of the case file, we request that you address the following technical comments and send us the reports described below.

TECHNICAL COMMENTS

- 1. Request for a Work Plan** – While grab groundwater samples were collected at each soil bore location, to do so required additional efforts including leaving the bores open for extended periods of time (all day or overnight), extending the bores to a deeper interval, or reinstalling a bore for better communication with groundwater. ACEH acknowledges the difficulty in obtaining groundwater in perched conditions; however, notes that groundwater appeared to eventually reach equilibrium on site at a depth of approximately 16 to 18 feet bgs, consistent with the depth to water at an adjacent site (Unocal #7124; RO0002444). In general the majority of temporary well screens were installed at deeper intervals due to the slowness of groundwater infiltration; thus it can be argued that the screen interval was submerged, and that while defining the vertical extent of groundwater impacts, the grab groundwater samples may not have defined the soil – groundwater interface appropriately. As a

consequence, ACEH requests the installation of a minimum of one test bore (e.g. CPT) or well capable of determining if the static groundwater level at the site is this shallow. ACEH requests the planned location also be at a location useful for delineating a groundwater plume. Please submit a limited investigation work plan by the date referenced below.

ACEH also acknowledges that the referenced site investigation has quickly assessed the lateral and vertical extent of contamination in soil based on site use over the years (multiple oil and gas services since at least the 1950's, and perhaps the 1920's); however, several data gaps are present and it appears appropriate to investigate the known areas associated onsite storage of petroleum hydrocarbons at the site. Only soil bores B4 and B13 were installed through former sources, and B4 encountered the elevated concentrations cited above, whereas B13 encountered very limited soil contamination. Source areas not investigated include the former location of the 500-gallon waste oil UST, the former fuel dispenser islands, the majority of the former fuel USTs, and the southern GPR anomaly (it is understood that this may be a foundation). It would also be appropriate to adequately investigate the former oil-water separator location due to the undocumented extent of removal, the residual contamination encountered in bore B4, and based on the presence of fill only to a depth of 8 feet bgs compared to a reported 6 foot wide by 17 feet deep source removal excavation. For these reasons ACEH requests a work plan by the date referenced below.

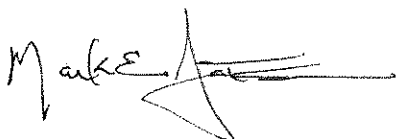
TECHNICAL REPORT REQUEST

Please claim the site in GeoTracker and submit appropriate documents to GeoTracker and ACEH (Attention: Mark Detterman), according to the following schedule:

- **August 24, 2012 – Work Plan**
- **60 Days After Work Plan Approval – Soil and Groundwater Investigation Report**

Should you have any questions, please contact me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,



Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou,
email, c=US
Date: 2012.06.21 16:25:06 -07'00'

Mark E. Detterman
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

cc: Thomas Neely, ETIC Engineering, Inc, 2285 Morello Avenue, Pleasant Hill, CA 94523
(sent via electronic mail to TNeely@eticeng.com)

Donna Drogos, ACEH, (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

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

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

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

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	REVISION DATE: July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

Appendix B
Field Protocols

PROTOCOLS FOR INSTALLATION, SAMPLING, AND ABANDONMENT OF DUAL-TUBE DIRECT-PUSH BORINGS

SUBSURFACE CLEARANCE SURVEY PROCEDURES

Prior to drilling, the proposed locations of borings are marked with white paint. Underground Service Alert (USA) is contacted prior to subsurface activities and a “ticket” is issued for the investigation. USA members mark underground utilities in the delineated areas using standard color code identifiers.

Once USA has marked the site, each proposed borehole location is investigated by subsurface clearance surveys to identify possible buried hazards (pipelines, drums, tanks). Subsurface clearance surveys use several geophysical methods to locate shallow buried man-made objects. The geophysical methods include electromagnetic induction profiling, ground penetrating radar, and/or magnetic surveying. The choice of methods depends on the target object and potential interference from surrounding features.

Prior to drilling, each borehole is cleared of underground utilities to a depth of at least 4 feet below ground surface (bgs) in “non-critical zones” and to 8 feet bgs in “critical zones.” Critical zones are defined as locations that are within 10 feet from the farthest edge of any underground storage tank (UST), within 10 feet of the product dispenser islands, the entire area between the UST field and the product dispenser islands, and within 10 feet of any suspected underground line. An 8- to 12-inch-diameter circle is cut in the surface cover at each boring location.

DRILLING AND SOIL SAMPLING PROCEDURES

Soil and groundwater samples are collected for lithologic and chemical analysis using a direct-driven dual-tube soil coring system. A hydraulic hammer drives sampling rods into the ground to collect continuous soil cores. Two nested sampling rods are driven simultaneously: small-diameter inner sampling rods are used to obtain and retrieve the soil cores; the larger diameter (approximately 2-inch outside diameter) outer rods serve as temporary drive rods.

As the rods are advanced, soil is driven into an approximately 1.5-inch-diameter sample barrel that is attached to the end of the inner rods. Soil samples are collected in sleeves inside the sample barrel as both rods are advanced. The use of outer rods prevents sloughing of the formation while the inner rods are withdrawn from the hole. This ensures that the drive sampler is always sampling soil from the desired interval, rather than potentially contaminated soil that has sloughed in from higher up in the hole.

After being driven 3 feet, the inner rods are removed from the borehole. The sleeves containing the soil samples are removed from the inner sample barrel, and can then be preserved for chemical analyses or used for lithologic identification. The soil-filled liner is labeled with the bore number, sample depth, site location, date, and time. When the sampler is retrieved, either the lowermost or middle sample liner is removed and the ends of the tube are covered with aluminum foil or a Teflon liner and sealed with plastic caps. Soil from one of the liners is placed in a plastic bag. The soil is scanned with a flame ionization detector (FID) or a photo-ionization detector (PID). This process is repeated until the desired depth is reached.

All drive rods, inner sample barrels, inner rods, and tools are cleaned with Alconox or equivalent detergent and deionized water. All rinsate from the cleaning is contained in 55-gallon drums at the project site.

Soil samples are stored in an ice-filled cooler and are delivered, under chain-of-custody, to a laboratory certified by the California Department of Health Services (DHS) for hazardous materials analysis.

GROUNDWATER SAMPLING PROCEDURES

After the targeted water-bearing zone has been penetrated, the sample barrel and inner rods are removed from the borehole, and the drive rods are pulled up approximately 0.5 to 2 feet to allow groundwater to flow into the borehole. Small-diameter well casing with 0.010-inch slotted well screen or equivalent may be installed in the borehole to facilitate the collection of groundwater samples. Threaded sections of polyvinyl chloride (PVC) temporary casing are lowered into the borehole inside the drive rods. The drive rods are then pulled up to expose the slotted interval of the PVC casing. Groundwater samples may then be collected with a bailer, peristaltic pump, bladder pump, or inertial pump until adequate sample volume is obtained.

Groundwater samples are stored in an ice-filled cooler and are delivered, under chain-of-custody, to a laboratory certified by the DHS for hazardous materials analysis.

BOREHOLE GROUTING

On completion of soil and water sampling, each borehole is abandoned with a neat cement grout. The grout is pumped through a grouting tube positioned at the bottom of the borehole prior to withdrawing the outer rods.