




Alameda County

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Environmental Health



**REPORT  
2004 FIRST QUARTER GROUNDWATER  
MONITORING AND SITE CLOSURE  
ASSESSMENT  
FORMER SEARS AUTO CENTER #1058B  
2600 TELEGRAPH AVENUE  
OAKLAND, CALIFORNIA  
CASE I.D. # STID 1082  
FOR SEARS, ROEBUCK & CO.**

**URS Job No. 29863494  
June 25, 2004**



June 24, 2004

Mr. Don Hwang  
Hazardous Materials Specialist  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Number 250  
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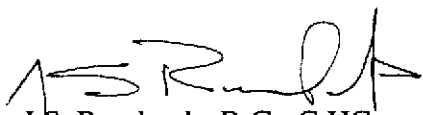
**Subject: 2004 First Quarter Groundwater  
Monitoring and Site Closure Assessment  
Former Sears Auto Center #1058B  
2600 Telegraph Avenue  
Case I.D. # STID 1082  
For Sears, Roebuck & Co.**

Dear Mr. Hwang:

Submitted with this letter is the 2004 First Quarter Groundwater Monitoring and Site Closure Assessment Report prepared on behalf of Sears, Roebuck & Co. Further groundwater monitoring has been suspended pending review and comment of this report by Alameda County Environmental Health Services. Please feel free to contact me at (714) 648 2793 if you have questions or comments.

Respectfully Submitted,

**URS CORPORATION**



J.S. Rowlands, R.G., C.HG.  
Project Manager

cc: Mr. Scott DeMuth, Sears, Roebuck & Co.  
Mr. Ryan Hartley, URS Corporation

**TABLE OF CONTENTS**

<u>SECTION</u>	<u>PAGE</u>
<b>1.0 INTRODUCTION .....</b>	<b>1-1</b>
<b>2.0 SITE DESCRIPTION .....</b>	<b>2-1</b>
2.1 Regional Geology and Hydrogeology .....	2-1
<b>3.0 BACKGROUND .....</b>	<b>3-1</b>
<b>4.0 SITE CLOSURE ASSESSMENT .....</b>	<b>4-1</b>
4.1 Health and Safety Plan .....	4-1
4.2 Utility Clearance .....	4-1
4.3 Soil Borings .....	4-2
4.4 Laboratory Analysis Program For Soil .....	4-2
4.5 Laboratory Analysis Results For Soil .....	4-3
4.6 Waste Management .....	4-3
<b>5.0 QUARTERLY GROUNDWATER MONITORING.....</b>	<b>5-1</b>
5.1 Groundwater Gauging .....	5-1
5.2 Groundwater Sampling .....	5-1
5.3 Well Head Maintenance .....	5-2
5.4 Laboratory Analyses Program for Groundwater .....	5-2
5.5 Groundwater Monitoring Results.....	5-2
5.5.1 Shallow Groundwater Conditions .....	5-2
5.5.2 Laboratory Analytical Results for Groundwater .....	5-2
5.6 Waste Management .....	5-3
<b>6.0 SITE CLOSURE ANALYSIS .....</b>	<b>6-1</b>
6.1 Site Closure Assessment .....	6-1
6.2 Groundwater Monitoring.....	6-2
6.3 Preferential Pathway Study .....	6-2
6.4 Oakland URL Program.....	6-3
<b>7.0 CONCLUSIONS/RECOMMENDATIONS .....</b>	<b>7-1</b>
<b>8.0 SCHEDULE .....</b>	<b>8-1</b>
<b>9.0 REFERENCES.....</b>	<b>9-1</b>

**List of Tables**

- 1 Summary of Soil Analytical Results
- 2 2004 First Quarter Groundwater Levels and Field Parameters
- 3 2004 First Quarter Groundwater Analytical Results
- 4 Oakland URL Tier 1 RBSLs and Tier 2 SSTL's for Soil

**List of Figures**

- 1 Vicinity Map
- 2 Plot Plan with Confirmation Soil Boring Locations
- 3 2004 First Quarter Groundwater Contour Map
- 4 2004 First Quarter TPH Concentration Map
- 5 Site Map Showing Underground Utility Locations and Cross-Section Line
- 6 Geologic Cross Section A-A' Showing Underground Utility Locations and Cross-Section Line

**List of Appendices**

- A ACEHS Correspondence
- B Historical Groundwater Monitoring Results
- C Soil Boring Logs
- D Laboratory Reports and Chain of Custody Documentation for Soil
- E URS Data Validation Report for Soil
- F Laboratory Reports and Chain of Custody Documentation for Groundwater
- G URS Data Validation Reports for Groundwater
- H Rose Diagrams for Historical Groundwater Gradient and Flow Direction
- I Well Survey Data
- J Oakland URL Eligibility Checklist
- K Oakland ULR Tier 1 RBSLS and Tier 2 SSTLS



## 1.0 INTRODUCTION

This report has been prepared by URS Corporation (URS) on behalf of Sears, Roebuck & Co. (Sears). It presents the methods utilized for further assessment of subsurface soil and groundwater conditions in the vicinity of two former 10,000 gallon gasoline underground storage tanks (USTs), one former 1,000 gallon used oil UST, five former 1,000 gallon motor oil USTs, and one former 2,000 gallon motor oil UST located at the former Sears Auto Center (Site) at 2600 Telegraph Avenue, Oakland, California (Figure 1). The removed USTs and fuel dispensing system were associated with a former Sears Auto Center (Figure 2).

The purpose of the Site closure assessment was to further characterize the nature and extent of residual petroleum hydrocarbon impacted soil related to the removed USTs and associated fuel dispensing system. The Site closure assessment consisted of advancing 14 soil borings, collecting and analyzing soil samples. The data was used to evaluate the Site for closure under the City of Oakland Urban Land Redevelopment (ULR) Program.

A work plan for the Site closure assessment was submitted to Alameda County Environmental Health Services (ACEHS) in January 2003 (URS, January 2003). In response to ACEHS comments dated April 11, 2003, a Work Plan Addendum was submitted in June 2003 (URS, June 2003). In response to additional comments from ACEHS dated July 8, 2003, a Work Plan Addendum #2 was submitted in January 2004 (URS, January 2004). A copy of the ACEHS correspondence approving with comments the proposed scope of work to be completed for the Site closure assessment is provided in Appendix A.

The 2004 first quarter groundwater monitoring event consisted of gauging, purging, and sampling nine monitoring wells (MW-1 through MW-9) and one extraction well (EW-1). The purpose of the groundwater monitoring event was to assess current groundwater conditions in the vicinity of removed gasoline USTs, associated fuel dispensers and product piping, and removed motor oil and used oil USTs. Groundwater monitoring has been conducted at the Site since December 1992. URS has conducted quarterly groundwater monitoring at the Site since March 2002. The work was performed under regulatory oversight of the ACEHS pursuant to quarterly monitoring and reporting requirements under Title 23, Division 3, Chapter 16 of the California Code of Regulations.

## 2.0 SITE DESCRIPTION

The Site is located at 2600 Telegraph Avenue, Oakland California (Figure 1). It is bordered by 27<sup>th</sup> Street to the north, Telegraph Avenue to the west, 26<sup>th</sup> Street to the south, and commercial and residential buildings to the east (Figure 2). The property is occupied by a single-story commercial structure and associated parking lots.

### 2.1 REGIONAL GEOLOGY AND HYDROGEOLOGY

The Site is approximately 1.5 miles east of San Francisco Bay and three miles west of the Diablo Range in Oakland, California. The Site is located on the eastern flank of the San Francisco Basin, a broad Franciscan depression. The basement rock of the basin is respectively overlain by the Santa Clara Formation, the Alameda Formation, and the Temescal Formation. These formations consist of unconsolidated sediments ranging in total thickness from approximately 300 feet to 1,000 feet. The Pleistocene Santa Clara Formation consists primarily of alluvial fan deposits that are interspersed with lake, swamp, river channel, and flood plain deposits. The overlying Alameda Formation was deposited in an estuary environment and consists of organic clays and alluvial fan deposits of sands, gravels, and silts. The uppermost Holocene Temescal Formation is an alluvial deposit ranging in thickness from 1 to 50 feet and consists primarily of silts and clays with a basal gravel unit. (California Regional Water Quality Control Board [RWQCB], San Francisco Bay Region, June 1999).

The Site is located within the Oakland sub-area of the East Bay Plain groundwater basin. The East Bay Plain groundwater basin encompasses approximately 115 square miles and is bounded by San Pablo Bay to the north, Alameda County to the south, the Hayward Fault to the east, and San Francisco Bay to the west. Existing beneficial uses of groundwater within the East Bay Plain basin include municipal and domestic water supply, industrial process water supply, industrial service water supply, and agricultural water supply (RWQCB, June 1995).

Groundwater flow direction in the basin typically follows surface topography. Historical high production wells in the Oakland sub-area were screened at depths greater than 200 feet below ground surface (bgs), beneath the Yerba Buena Mud Member of the Alameda Formation. The Yerba Buena Mud is a black organic clay with an average thickness of 25 feet to 50 feet that forms an aquitard between upper and lower groundwater bearing units. From the 1860's until water importation programs were initiated in the 1930's, groundwater in the East Bay Plain was utilized as the primary municipal water source. Current beneficial uses of groundwater in the basin are minimal due to "readily available high quality imported surface water" (RWQCB, June 1999). Alameda County Well permit applications indicated 91% of groundwater wells within the basin are used for "backyard" or commercial irrigation, 8.6% of the wells are used for industrial process water, and 0.4% are used for drinking water supply (RWQCB, June 1999).

### 3.0 BACKGROUND

The Site consists of a Former Sears Auto Center converted to a commercial strip mall. A number of USTs were installed and operated in connection with the gasoline concession and auto center. Five 1,000 gallon motor oil USTs and one 2,000 gallon motor oil UST were previously located on the east side of the former auto center building. One 1,000 gallon used oil UST and two 10,000 gallon gasoline USTs were previously located on the west side of the former auto center building. The USTs were installed in the 1960s. The two 10,000 gallon USTs associated with the gasoline concession were removed prior to 1990. American Environmental Management Corporation (AEMC) removed all the USTs containing motor oil and used oil in September 1990 (AEMC, October 1990). The former UST locations are shown on Figure 2.

Soil samples collected by AEMC from the motor oil and used oil UST excavations contained concentrations of total petroleum hydrocarbons as gasoline (TPHg) up to 39 milligrams per kilogram (mg/kg). Soil samples collected from the motor oil and used oil UST excavations contained concentrations of total petroleum hydrocarbons as diesel fuel (TPHd) up to 4,400 mg/kg. Benzene was detected in soil samples at concentrations up to 12 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). Toluene was detected in soil samples at concentrations up to 310  $\mu\text{g}/\text{kg}$ . Ethylbenzene was detected in soil samples at concentrations up to 410  $\mu\text{g}/\text{kg}$ . Xylenes were detected in soil samples at concentrations up to 3,000  $\mu\text{g}/\text{kg}$ . Trichloroethene, tetrachloroethene, and acetone were also detected in three soil samples at concentrations ranging from 7 to 140  $\mu\text{g}/\text{kg}$ .

Approximately 55 cubic yards of soil was excavated by AEMC during the motor oil and used oil UST removals and a subsequent excavation project. The excavated soil was transported from the Site and disposed at Gibson Asphalt Recylers in Bakersfield, California (AEMC, January 1991). Confirmation samples collected from the excavations contained less than 60 mg/kg of TPHd. Ethylbenzene and xylenes were detected in one soil sample at concentrations of 13  $\mu\text{g}/\text{kg}$  and 14  $\mu\text{g}/\text{kg}$ , respectively.

AEMC conducted a Phase II assessment of soil and groundwater on the west side of the former Auto Center in the areas of the removed gasoline and used oil USTs during February 1991 (AEMC, August 1991). Due to drill refusal, soil samples were not collected from depths greater than 15 feet bgs. TPHg was detected in soil samples at concentrations up to 6.3 mg/kg. TPHd was "non-detect" (ND) in all soil samples. TPH as oil and grease was detected in soil samples at concentrations up to 930 mg/kg. Benzene was detected in soil samples at concentrations up to 100  $\mu\text{g}/\text{kg}$ . Toluene was detected in soil samples at concentrations up to 300  $\mu\text{g}/\text{kg}$ . Ethylbenzene was detected in soil samples at concentrations up to 170  $\mu\text{g}/\text{kg}$ . Xylenes were detected in soil samples at concentrations up to 280  $\mu\text{g}/\text{kg}$ .

TPHg were detected in Hydropunch<sup>TM</sup> groundwater samples collected during the AEMC Phase II assessment at concentrations up to 18,000  $\mu\text{g}/\text{L}$ . TPH oil and grease were detected in Hydropunch<sup>TM</sup> groundwater samples at concentrations up to 7,000 mg/L. Benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in Hydropunch<sup>TM</sup> groundwater samples at concentrations up to 240  $\mu\text{g}/\text{L}$ .

## Report- 2004 First Quarter Groundwater Monitoring and Site Closure Assessment

Since December 1992, a total of nine groundwater monitoring wells (MW-1 to MW-9) and one groundwater extraction well (EW-1) have been installed to evaluate the extent of petroleum hydrocarbon affected groundwater beneath the Site. However, Well EW-1 has never been utilized for groundwater extraction and has only been used for monitoring purposes. Groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5 have been monitored on a periodic basis since December 1992. Wells MW-6, MW-7, and MW-8 have been monitored on a periodic basis since December 1993. Wells MW-9 and EW-1 have been monitored on a periodic basis since December 1996.

The historical groundwater monitoring data indicates that separate phase product was periodically present in well MW-3 from September 1993 until August 2000 and has not been observed in subsequent quarterly monitoring events. Historical chemical analysis results indicated that the separate phase product observed in well MW-3 consists of TPHg, TPHd, and oil range hydrocarbons (TPHo).

The highest dissolved phase concentrations of TPHg, TPHd, TPHo, benzene, toluene, ethylbenzene, and total xylenes (BTEX) and the fuel oxygenate Methyl tert-Butyl Ether (MTBE) historically detected in groundwater samples collected from the Site are summarized in the following table.

**Historical Maximum Concentrations**

Analyte	Well	Concentration ( $\mu\text{g/L}$ )	Date of Detection
TPHg	MW-3	7,800	02/25/00
TPHd	MW-3	1,026	06/06/02
TPHo	MW-3	130,000	02/25/00
Benzene	EW-1	83	06/09/97
Toluene	MW-3	6	08/25/97
Ethylbenzene	MW-3	5	08/25/97
Total Xylenes	MW-3	27	11/15/95
MTBE	EW-1	30	02/12/98

A summary of the historical chemical analytical results for previous groundwater monitoring events is provided in Appendix B. It should be noted that the gasoline USTs were removed from the Site prior to the widespread use of MTBE, and the previously detected concentrations may be "false positives" that were not confirmed by EPA analysis method 8260B.

## 4.0 SITE CLOSURE ASSESSMENT

The scope of work completed for the Site closure assessment consisted of the following tasks;

- Updating a Site specific Health and Safety Plan,
- Clearing proposed boring locations with Underground Service Alert,
- Advancing 14 confirmation borings to depths of approximately 10 to 25 feet bgs, or first groundwater,
- Collecting soil samples at discrete intervals;
- Analyzing the soil samples for TPHg, TPHd, and TPHo by EPA Method 8015M, for 72 Volatile Organic Compounds (VOCs) including BTEX and MTBE by EPA Method 8260B, and for total lead by EPA Method 7420.

The soil boring locations are shown on Figure 2. The Site closure assessment methods and results are presented in the following sections.

### 4.1 HEALTH AND SAFETY PLAN

Prior to initiating field activities, URS prepared a Site-specific Health and Safety Plan (HSP) to:

- Identify and describe potentially hazardous substances which may be encountered during field operations;
- Specify protective equipment and clothing for on-site activities; and
- Outline measures to be implemented in the event of an emergency.

URS field personnel and URS subcontractors reviewed the HSP prior to commencing the field procedures. Field monitoring activities were recorded in the HSP and are maintained in the project files at URS' Santa Ana office. A copy of the HSP remained onsite during field operations.

### 4.2 UTILITY CLEARANCE

In accordance with California Assembly Bill AB 73, Underground Services Alert (USA) was notified of our intent to conduct subsurface borings at least 48 hours prior to initiation of intrusive field tasks. The proposed subsurface borings locations were clearly marked with white paint as required by California Code 4216. USA contacted utility owners of record within the vicinity and notified them of our intention to conduct subsurface borings in proximity to buried utilities. The utility owners of record, or their

designated agents, clearly marked the position of their utilities on the ground surface throughout the area designated for investigation.

### **4.3 SOIL BORINGS**

Soil borings CB-1 through CB-14 were drilled with a CME-85 drill rig equipped with an 8-inch diameter hollow-stem augers. The first 5 feet of each boring was hand-augered to assess the potential presence of subsurface utilities or other structures. The borings were drilled February 17 and 18, 2004 by BC2 Environmental Corporation of San Leandro, CA (C-57 License #686255).

Soil borings CB-1 through CB-14 were sampled discreetly at 5-foot intervals to depths ranging from approximately 10 to 25 feet bgs, or first groundwater. Groundwater was encountered in the boring at depths ranging from 14 to 25 feet bgs. In general, soil samples collected from the saturated zone were not analyzed and used for lithologic descriptions only. Boring CB-12 was terminated at approximately 10 feet bgs due to geotextile fabric in the former UST excavation binding up the auger.

Soil samples were collected through the hollow stem of the auger using a 1.75-inch inside diameter split-spoon sampler equipped with stainless steel sleeves. The sampler was driven 18 inches with a standard 30-inch drop of a 140-pound hammer. Hammer blow counts were recorded on the boring logs (Appendix C). Upon retrieval of the sampler at each sampling interval, the sample sleeves were separated and observed for possible staining. The soil samples were screened for VOCs using a Photo Ionization Detector (PID). PID readings were taken from the ends of each soil sleeve and recorded on the boring logs. Soils were classified in accordance with the Unified Soils Classification System (USCS) and recorded on the boring logs (Appendix C).

Following PID screening, the soil core ends were covered with Teflon™ film and fitted with snug-fitting plastic end caps, which were then sealed with Parafilm™ (a volatile-organics-free laboratory film). The cores were labeled with the following information: boring designation, sample number, sample depth, date, collector initials, owner, sample location, and time of collection. The sealed and labeled samples were then transferred to an ice chest containing blue ice and transported to STS Laboratory. for analysis. The samples were logged onto Chain of Custody forms that were maintained through delivery to the laboratory (Appendix D).

### **4.4 LABORATORY ANALYSIS PROGRAM FOR SOIL**

A total of 51 soil samples collected from the confirmation borings were submitted to STS, a California DHS-accredited laboratory, located in Montebello, CA. The soil samples submitted to STS were analyzed for TPHg, TPHd, and TPHo by EPA Method 8015M, 72 VOCs by EPA Method 8260B, and total lead by EPA Method 7420. A summary of the chemical analytical results for the soil samples is provided in Table 1. Copies of the laboratory reports and COC documents are provided in Appendix C.

#### 4.5 LABORATORY ANALYSIS RESULTS FOR SOIL

TPHg was detected in 19 soil samples collected from borings CB1 through CB6, CB8, CB10, CB11, and CB13 at concentrations ranging from 0.6 mg/kg (CB6-5) to 1,780 mg/kg (CB8-5). TPHd was detected in four soil samples collected from borings CB4, CB5, CB6, and CB8 at concentrations ranging from 21 mg/kg (CB4-5) to 202 mg/kg (CB5-10). TPHo was detected in three soil samples collected from borings CB4, CB5, and CB6 at concentrations ranging from 186 mg/kg (CB6-10) to 1,430 mg/kg (CB5-10).

Benzene was detected in one sample (CB7-20) at a concentration of 5.8 µg/kg. Toluene was detected in three soil samples collected from borings CB1, CB7, and CB8 with concentrations ranging from 7.3 µg/kg (CB7-20) to 1,630 µg/kg (CB8-5). Ethylbenzene was detected in five soil samples collected from borings CB1, CB3, CB8, and CB13 with concentrations ranging from 21.4 µg/kg (CB1-10) to 39,000 µg/kg (CB8-5). Total Xylenes were detected in five soil samples collected from borings CB1, CB3, CB7, CB8, and CB13 with concentrations ranging from 18.4 µg/kg (CB7-20) to 160,000 µg/kg (CB8-5). All soil samples analyzed from borings CB2, CB4, CB6, CB9, CB11, CB12, and CB14 contained non-detect (ND) concentrations of BTEX and fuel oxygenates MTBE, DIPE, TAME, ETBE, and TBA. Total lead was detected in 13 soil samples at concentrations ranging from 2.8 mg/kg (CB6-15 and CB9-10) to 41 mg/kg (CB13-5). A summary of the analytical results for the soil samples are shown on Table 1. Copies of the laboratory reports and chain of custody documents are provided in Appendix D.

URS conducted a check of data completeness for the chemical analytical laboratory reports for soil samples collected during this project. Results indicate that "these data as qualified are considered to be useable for meeting project objectives." URS' Data Validation Report for soil are included in Appendix E.

#### 4.6 WASTE MANAGEMENT

Drill cuttings and decontamination water were collected and stored in 26 55-gallon DOT-approved drums. Containers were numbered and labeled with the date and contents to identify the source of the wastes. The containers were stored onsite in a designated area and properly disposed of by a licensed waste transporter contracted to Sears following review of the chemical analytical data.

## 5.0 QUARTERLY GROUNDWATER MONITORING

The 2004 first quarter groundwater monitoring was performed on February 12, 2004. The monitoring consisted of gauging, purging, and sampling nine monitoring wells (MW-1 through MW-9) and one extraction well (EW-1). A description of the monitoring procedures is presented below.

### 5.1 GROUNDWATER GAUGING

Prior to sampling, water levels were measured relative to the surveyed top of casing using a Solinst water level indicator. Water level data was recorded to the nearest 0.01 foot. Each groundwater monitoring well was also checked for the presence of separate phase product using a product interface probe. Separate phase product was not observed in any of the wells. Groundwater depths and elevations for the 2004 first quarter are listed in Table 2 and historical data is included in Appendix B.

### 5.2 GROUNDWATER SAMPLING

Groundwater samples were collected from the wells after purging approximately three casing volumes of well water using a Grundfos RediFlo 2™ submersible pump. The wells were purged at a rate of approximately 0.2 to one gallon per minute (gpm). Groundwater purged from the wells was monitored for various field parameters including temperature, pH, electrical conductivity, dissolved oxygen (DO), oxidation reduction potential (ORP), and turbidity using a YSI™ multi-parameter meter equipped with a flow-through cell. Ferrous iron concentration was also measured in the field using a Hach™ testing kit. Measured field parameters are listed in Table 2. The “post-purge” groundwater samples were collected from the disposable discharge tubing of the sampling pump following well purging.

The downhole pump was cleaned prior to use and between wells by washing in a solution of Alconox and tap water, rinsing in tap water, final rinsing in deionized water, and air drying. Pre-cleaned, disposable, polyethylene discharge tubing was attached to the pump following each decontamination and was changed between each well purging event. A blind duplicate sample was also collected from well EW-1 and labeled DUP-1. One equipment blank sample, labeled EB-1, was collected by pumping deionized water from a clean container through the pump and clean, disposable, polyethylene tubing into sample containers following decontamination procedures.

Sample containers and handling procedures conformed to the established protocols for each specific parameter as described in EPA SW-846. The sample bottles, once filled and preserved as required, were properly labeled. The label included well identification number, sample number, date and time sampled, job number, Site/client name and location, and sampling personnel's initials. The sealed and labeled samples were placed in an ice chest packed with ice and transported to STS in Montebello, California for analysis. The ice chest temperature was recorded at 4 degrees centigrade by the laboratory upon sample receipt. A trip blank (TB-1), prepared by STS, remained in the ice chest during sample collection and transport. Chain-of-custody records were maintained throughout the sampling program, a copy of which is included in Appendix F.



### 5.3 WELL HEAD MAINTENANCE

As part of the quarterly monitoring program, each well head is inspected to ensure that wells are properly sealed and secured. The routine well maintenance associated with the quarterly groundwater sampling consists of: inspection of water-tight well caps and locks on all monitoring wells and replacement as necessary; replacement of missing or damaged bolts on well box covers; and removal and replacement of damaged well boxes and associated concrete aprons. During this quarter event, none of the wells were noted as damaged. The well boxes were previously repaired in January 2004.

### 5.4 LABORATORY ANALYSES PROGRAM FOR GROUNDWATER

Groundwater samples were submitted to STS in Montebello, California for analysis. The groundwater samples, duplicate and equipment blank samples were analyzed for TPHg, TPHd, and TPHo by modified EPA Method 8015M. The samples were also analyzed for VOCs including BTEX, fuel oxygenates MTBE, Di-isopropyl Ether (DIPE), Ethyl tert-butyl Ether (ETBE), tert-Amyl Methyl Ether (TAME), tert-Butanol (TBA), ethanol, and the lead scavengers 1,2-Dibromoethane (EDB) and 1,2-Dichloroethane (EDC or 1,2-DCA). The trip blank was analyzed for TPHg by EPA method 8015M and VOCs by EPA Method 8260B. Analytical results for the groundwater samples are summarized in Table 2. Copies of the laboratory reports are included in Appendix F.

### 5.5 GROUNDWATER MONITORING RESULTS

#### 5.5.1 Shallow Groundwater Conditions

Historical groundwater measurements collected since June 1996 indicate that the potentiometric surface beneath the Site has fluctuated from approximately 9 feet to 14 feet bgs, or 12 feet to 18 feet above mean sea level (msl). The measured depth to water during the 2004 first quarter monitoring ranged from 10.10 feet to 11.94 feet bgs, and groundwater elevation ranged from approximately 13.11 feet to 16.81 feet above msl. The potentiometric surface to groundwater beneath the Site has decreased an average of 0.4 foot since the last monitoring event conducted in December 2003.

Groundwater elevation contours and groundwater flow vectors were generated by a geostatistical gridding method using SURFER™, a graphical, contouring software program. The resultant groundwater contours indicate a southerly groundwater flow direction with a gradient of approximately 0.02. A groundwater elevation contour map, based on the 2004 first quarter water level measurements, is provided on Figure 3.

#### 5.5.2 Laboratory Analytical Results for Groundwater

TPHg was detected in four of the ten groundwater wells sampled (MW-1, MW-3, MW-9 and EW-1) with concentrations ranging from 54 µg/L (MW-9) to 766 µg/L (EW-1). TPHd and TPHo were ND in all groundwater wells sampled. MTBE was detected in one of the ten groundwater wells sampled (MW-4) with a concentration of 2.4 µg/L, slightly exceeding the method detection limit of 2 µg/L. All other VOC analytes including BTEX, DIPE, ETBE, TAME, TBA, EDB, EDC, and ethanol were ND in the groundwater wells sampled.

## **Report- 2004 First Quarter Groundwater Monitoring and Site Closure Assessment**

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Chemical analytical results of the 2004 first quarter groundwater monitoring event are presented in Table 3. Copies of the laboratory reports and chain-of-custody documents are included in Appendix F. A Site map showing TPHg, TPHd, and TPHo concentrations for the 2004 first quarter is provided as Figure 4. URS conducted a check of data completeness for the analytical laboratory reports. Results indicate that "these data are considered to be usable for meeting project objectives without qualifications." A copy of URS' Data Validation Report for groundwater is included in Appendix G.

### **5.6 WASTE MANAGEMENT**

Purge water and decontamination water were collected and stored in three 55-gallon DOT-approved drums. Containers were numbered and labeled with the date and contents to identify the source of the wastes. The containers were stored onsite in a designated area and properly disposed of by a licensed waste transporter contracted to Sears following review of the chemical analytical data.

## 6.0 SITE CLOSURE ANALYSIS

A Site closure analysis was conducted utilizing the data collected from the 14 soil borings completed in February 2004 and the historical groundwater monitoring data collected since 1992. In addition, a preferential pathway study and well survey were conducted for the Site vicinity. The Site was evaluated for closure in accordance with the City of Oakland Urban Land Redevelopment Program (URL).

### 6.1 SITE CLOSURE ASSESSMENT

The purpose of the Site closure assessment was to further characterize the nature and extent of residual petroleum hydrocarbon impacted soil related to the removed USTs and associated fuel dispensing system. The Site closure assessment consisted of advancing 14 soil borings (CB-1 through CB-14) to collect and analyze soil samples in the vicinity of two former 10,000 gallon gasoline USTs and related fuel dispensing system, one former 1,000 gallon used oil UST, five former 1,000 gallon motor oil USTs, and one former 2,000 gallon motor oil UST.

A total of 51 soil samples collected from the boring were analyzed for TPHg, TPHd, and TPHo by EPA Method 8015M, VOCs by EPA Method 8260B, and total lead by EPA Method 7420. A summary of the analytical results for the soil samples are shown on Table 1. The highest concentrations detected for Chemicals of Concern (COCs) at the Site are provided in the table below.

Range of Detected COC Concentrations in Soil

Analyte	Number of Detections	Lowest Concentration Detected	Highest Concentration Detected
TPHg	19	0.6 mg/kg	1,780 mg/kg
TPHd	4	21 mg/kg	202 mg/kg
TPHo	3	186 mg/kg	1,430 mg/kg
Benzene	1	-	5.8 µg/kg
Toluene	3	7.3 µg/kg	1,630 µg/kg
Ethylbenzene	5	21.4 µg/kg	39,000 µg/kg
Total Xylenes	5	18.4 µg/kg	160,000 µg/kg
1,1,2-Trichloroethane	2	102 µg/kg	394 µg/kg
Naphthalene	13	5 µg/kg	20,200 µg/kg
Total Lead	13	2.8 mg/kg	41 mg/kg

The highest TPHg and VOC concentrations were present in sample CB8-5, collected from boring CB8 at a depth of five-feet bgs. Boring CB8 was located on the west side of the property near the southern end of the former fuel dispenser islands (Figure 2). Analytical results indicate TPHg and VOC concentrations at this boring location decrease significantly by a depth of 10 feet bgs. Analytical results from adjacent

borings suggest the TPHg and VOC concentrations significantly decrease laterally within a radius of 20 feet. Detectable concentrations of total lead are within acceptable background levels for an urban environment.

## **6.2 GROUNDWATER MONITORING**

Results of the 2004 first quarter groundwater monitoring indicate that detectable concentrations of TPHg ranging from 54 µg/L to 766 µg/L are present in groundwater samples collected from four of the ten wells (MW-1, MW-3, MW-9, and EW-1). Three of the four wells with detectable concentrations of TPHg are located down gradient of the former gasoline and used oil USTs. Well MW-1 is located down gradient of the former motor oil USTs. VOCs commonly associated with TPHg, such as BTEX, MTBE, ETBE, DIPE, TAME, TBA, EDB, EDC, and ethanol were not detected in any of the groundwater samples collected during this sampling event with the exception of a concentration 2.4 µg/L of MTBE detected in the groundwater sample collected from well MW-4.

In addition, there have been no measurable separate phase petroleum hydrocarbons in well MW-3 for 14 consecutive quarterly monitoring events. Benzene has not been detected in any groundwater samples collected from the wells since May 1999. Toluene has not been detected in any groundwater samples collected from the wells since August 1999. Ethylbenzene and total xylenes have not been detected in any groundwater samples collected from the wells since October 1999. A summary of the historical analytical data including time versus concentration graphs are provided in Appendix B.

Groundwater flow is towards the south with a gradient of about 0.02. Groundwater flow direction and gradient are consistent with previous monitoring events. Rose diagrams for historical groundwater gradient and flow direction based on the last 16 or 17 (including this event) monitoring events are included as Appendix H.

Based on the analytical results for this and previous sampling events, the groundwater monitoring well network effectively defines the extent of dissolved phase hydrocarbons onsite. Nine consecutive quarters of groundwater monitoring have demonstrated that natural attenuation is occurring, the impacted plume is stable (i.e., not migrating), and the plume size and concentrations are significantly reduced.

## **6.3 PREFERENTIAL PATHWAY STUDY**

As requested by ACEHS, URS completed a preferential pathway study for the Site which evaluated potential migration pathways and potential conduits for horizontal and vertical migration of hydrocarbons and VOCs in soil and groundwater. A detailed utility survey and well survey was conducted to evaluate the potential preferential pathways for migration.

URS contacted Underground Services Alert (USA) during February of 2004 to schedule a Site meeting with utility owners of record, or their designated agents, to evaluate the locations of underground utilities within the Site vicinity. In addition, URS reviewed available maps of underground public utilities at the City of Oakland Building Department. The approximate locations of underground public utilities in the

Site vicinity are provided on Figure 5. Cross sections showing the approximate depths of the utilities are provided as Figures 6 and 7.

Underground utilities border the Site to the north on 27<sup>th</sup> Street, to the west on Telegraph Avenue, and to the south on 26<sup>th</sup> Street (Figure 5). The nearest underground utility to boring CB6 where the highest residual concentrations of petroleum hydrocarbons and VOCs were found is a gas line located on the east side of Telegraph Avenue. The gas line is located approximately 25 feet west of boring CB8 beyond the estimated lateral limits of petroleum hydrocarbon and VOC affected soil.

Survey data for wells in the Site vicinity was requested from the County of Alameda Public Works Agency in February 2004. The survey data was provided in May 2004 and included information on wells in Township 1 south, Range 4 west, Section 26 of the Diablo Base and Meridian. The survey data provided covers a minimum radius of ¼-mile from the Site. A review of the data indicates there are no domestic, irrigation, municipal, or industrial groundwater wells in the Site vicinity. Numerous groundwater monitoring wells are located in the Site Vicinity. It is likely that most or all of these wells are completed in the shallow water bearing zones. A copy of the well survey data is provided in Appendix I.

#### **6.4 OAKLAND ULR PROGRAM**

The Oakland ULR Program is a collaborative effort between the City of Oakland and environmental regulatory agencies including the Department of Toxic Substances Control (DTSC), the Regional Water Quality Control Board (RWQCB), and the ACEHS to “facilitate cleanup and redevelopment of contaminated properties” within the City of Oakland. Sites can be evaluated using the Tier 1, Tier 2, or Tier 3 processes described in the Oakland ULR Program. A completed ULR eligibility checklist for the Site confirming Site eligibility is provided as Appendix J.

The Tier 1 and Tier 2 evaluation process consists of comparing existing concentrations of COCs in Site soil and groundwater to Tier 1 Risk-Based Screening Levels (RBSLs) or Tier 2 Site Specific Target Levels (SSTLs) provided in look-up tables included in the Oakland ULR Program Guidance Document. Copies of the Tier 1 RBSLs and Tier 2 SSTLs, last updated in January 2000, are provided in Appendix K. If COCs present on a site exceed the Tier 1 RBSLs, then the site may be evaluated under Tier 2 SSTLs which factors in specific soil types common to the the Oakland area.

Petroleum hydrocarbons are not listed in the Tier 1 RBSLs or Tier 2 SSTLs and therefore are not considered COCs at the Site. Table 4 shows concentrations of detected COCs in soil and corresponding RBSL and SSTL values for subsurface soil. Residual COCs in all soil samples collected and analyzed from the closure assessment borings are below residential and commercial/industrial Tier 1 RBSLs for inhalation of indoor air vapors and outdoor air vapors, and Tier 2 SSTLs for Merritt Sands for inhalation of indoor air vapors and outdoor air vapors.

## Report- 2004 First Quarter Groundwater Monitoring and Site Closure Assessment

Four soil samples contained concentrations of COCs that exceed subsurface soil Tier 1 RBSLs or Tier 2 SSTLs for Merritt Sands for ingestion of groundwater impacted by leachate (Table 4). However, well survey data for the Site vicinity shows shallow groundwater is not used as a drinking water source, and historical groundwater monitoring results show low to ND results for COCs. Therefore, subsurface soil RBSLs or SSTLs for ingestion of shallow groundwater impacted by leachate should not be used as a factor in evaluating the Site for closure.

## 7.0 CONCLUSIONS/RECOMMENDATIONS

Analytical results for soil samples collected during the Site closure assessment indicate that concentrations of residual COCs are below Tier 1 RBSLs and Tier 2 SSTLs for inhalation of indoor and outdoor air vapors. Although detectable concentrations of petroleum hydrocarbons are present in groundwater samples collected from onsite wells, VOCs commonly associated with TPHg, such as BTEX, MTBE, ETBE, DIPE, TAME, TBA, EDB, EDC, and ethanol were not detected in any of the groundwater samples collected during this sampling event with the exception of a concentration 2.4 µg/L of MTBE detected at well MW-4. Nine consecutive quarters of groundwater monitoring has demonstrated that the hydrocarbon impacted plume is not migrating, and residual concentrations are attenuating.

The preferential pathway study shows there are minimal concerns for vertical or horizontal migration of residual hydrocarbons or VOCs to groundwater via underground utility trenches or groundwater wells. Available well data shows there are no domestic, irrigation, municipal, or industrial groundwater wells in the Site vicinity.

Based on the results of the Site closure assessment, and historical groundwater monitoring data, URS recommends that no further action be required in relation to historical releases from the removed USTs and fuel dispensing system at the Site.

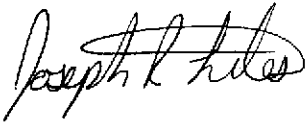
## 8.0 SCHEDULE

Further groundwater monitoring has been suspended at the Site pending review of the Site closure analysis by ACEHS. Groundwater wells onsite will be properly destroyed following receipt of Site closure notification from ACEHS.


Should you have any questions or comments, please do not hesitate to contact us.

Respectfully Submitted,

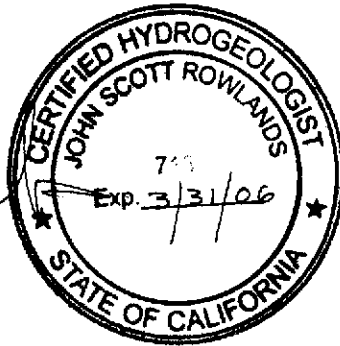
**URS CORPORATION**



Joseph Liles  
Senior Staff Geologist



J.S. Rowlands, R.G., C.H.G.  
Project Manager





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**Table 1**  
**Summary of Soil Analytical Results**  
**Former Sears Auto Center #1058**  
**2600 Telegraph Avenue**  
**Oakland California**

Sample No.	Sample Date	Sample Depth (ft bgs)	LABORATORY ANALYTICAL RESULTS																	
			TPH by EPA 8015M			Volatile Organics by EPA 8260B														Lead by EPA 7420
			TPHg (mg/kg)	TPHd (mg/kg)	TPHo (mg/kg)	Benzene (µg/kg)	1,1,2-Trichloroethane (µg/kg)	Isopropylbenzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	n-Propylbenzene (µg/kg)	1,3,5-Trimethylbenzene (µg/kg)	tert-Butylbenzene (µg/kg)	1,2,4-Trimethylbenzene (µg/kg)	Sec-Butylbenzene (µg/kg)	p-Isopropyltoluene (µg/kg)	n-Butylbenzene (µg/kg)	Napthalene (µg/kg)	Total Lead (mg/kg)
CB1-5	2/17/2004	5	4.1	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	10.6	9.4	
CB1-10	2/17/2004	10	25.2	< 5	< 50	< 2	102	32.6	11.6	21.4	22.0	86.6	45.8	< 5	122	38.0	< 5	88.4	43.6	< 2.5
CB1-15	2/17/2004	15	1.3	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB1-20	2/17/2004	20	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB2-5	2/17/2004	5	2.1	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	5.9	7.6	3.1	
CB2-10	2/17/2004	10	1.4	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	6.7
CB2-15	2/17/2004	15	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB2-20	2/17/2004	20	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB2-25	2/17/2004	25	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB3-5	2/17/2004	5	645	< 5	< 50	< 2	< 5	1,400	< 2	3,070	2,890	4,720	8,930	< 5	25,500	1,220	823	< 5	3,800	14
CB3-10	2/17/2004	10	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	5.2	< 5	9.6	< 5	< 5	< 5	< 5	< 2.5
CB3-15	2/17/2004	15	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB4-5	2/17/2004	5	4.7	21	305	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	28	< 5	< 5	< 5	5.1	33	8.1
CB4-10	2/17/2004	10	4.6	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5.8	3.3
CB4-15	2/17/2004	15	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB4-20	2/17/2004	20	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB4-25	2/17/2004	25	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB5-5	2/17/2004	5	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.9
CB5-10	2/17/2004	10	72.1	202	1,430	< 2	< 5	65.5	< 2	< 2	< 4	62.5	< 5	761	< 5	< 5	< 5	760	363	< 2.5
CB5-15	2/17/2004	15	1.3	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	4.8
CB5-20	2/17/2004	20	2.0	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB6-5	2/17/2004	5	0.6	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB6-10	2/17/2004	10	< 0.5	36	186	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB6-15	2/17/2004	15	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.8
CB6-20	2/17/2004	20	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB7-5	2/17/2004	5	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB7-10	2/17/2004	10	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB7-15	2/17/2004	15	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB7-20	2/17/2004	20	< 0.5	< 5	< 50	5.8	< 5	< 5	7.3	< 2	18.4	7.0	8.8	< 5	< 5	10.6	< 5	< 5	< 5	< 2.5
CB8-5	2/18/2004	5	1,780	30	< 50	< 2	< 5	14,300	1,630	39,000	160,000	41,500	55,000	< 5	166,000	5,490	3,300	17,600	20,200	< 2.5
CB8-10	2/18/2004	10	36.5	< 5	< 50	< 2	< 5	205	< 2	129	< 4	487	72.5	< 5	215	110	< 5	253	204	5.3
CB8-15	2/18/2004	15	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB9-5	2/18/2004	5	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB9-10	2/18/2004	10	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.8
CB9-15	2/18/2004	15	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB9-20	2/18/2004	20	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB10-5	2/18/2004	5	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB10-10	2/18/2004	10	172	< 5	< 50	< 2	394	< 5	< 2	< 2	< 4	1,110	< 5	< 5	< 5	485	< 5	1,130	180	< 2.5
CB10-15	2/18/2004	15	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB11-5	2/18/2004	5	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB11-10	2/18/2004	10	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	4.2
CB11-15	2/18/2004	15	11.0	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	11.4	< 2.5

**Table 1  
Summary of Soil Analytical Results  
Former Sears Auto Center #1058  
2600 Telegraph Avenue  
Oakland California**

Sample No.	Sample Date	Sample Depth (ft bgs)	LABORATORY ANALYTICAL RESULTS																	
			TPH by EPA 8015M			Volatile Organics by EPA 8260B													Lead by EPA 7420	
			TPHg (mg/kg)	TPHd (mg/kg)	TPHo (mg/kg)	Benzene (µg/kg)	1,1,2-Trichloroethane (µg/kg)	Isopropylbenzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	n-Propylbenzene (µg/kg)	1,3,5-Trimethylbenzene (µg/kg)	tert-Butylbenzene (µg/kg)	1,2,4-Trimethylbenzene (µg/kg)	Sec-Butylbenzene (µg/kg)	p-Isopropyltoluene (µg/kg)	n-Butylbenzene (µg/kg)	Naphthalene (µg/kg)	Total Lead (mg/kg)
CB12-10	2/18/2004	10	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 2.5
CB13-5	2/18/2004	5	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	41
CB13-10	2/18/2004	10	51.8	< 5	< 50	< 2	< 5	< 5	< 2	340	140	< 5	110	< 5	250	< 5	< 5	< 5	135	2.5
CB13-15	2/18/2004	15	5.3	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.5
CB13-20	2/18/2004	20	0.7	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.5
CB14-5	2/18/2004	5	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.5
CB14-10	2/18/2004	10	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.5
CB14-15	2/18/2004	15	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.5
CB14-20	2/18/2004	20	< 0.5	< 5	< 50	< 2	< 5	< 5	< 2	< 2	< 4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.5

Notes:  
 TPHg- Total Petroleum Hydrocarbons, gasoline range (C4-C-12)  
 TPHd- Total Petroleum Hydrocarbons, diesel range (C13-C-13)  
 TPHo- Total Petroleum Hydrocarbons, oil range (C24-C-40)  
 (µg/kg) = micrograms per kilogram  
 (mg/kg) = milligrams per kilogram  
 ft bgs = feet below ground surface  
 < = Analyte not detected at or above indicated method detection limit

**Table 2**  
**2004 First Quarter Groundwater Levels and Field Parameters**  
**Former Sears Auto Center #1058B**  
**2600 Telegraph Avenue**  
**Oakland, California**

Monitoring Well No.	Sample Date	Notes	Product Thickness (feet)	GROUNDWATER LEVELS				GROUNDWATER SAMPLING FIELD PARAMETERS				
				Depth to Groundwater (feet bgs)	Casing Elevation (MSL)	Groundwater Elevation (MSL)	Temperature (Celsius)	pH	Electrical Conductivity (µS/cm)	O.R.P. (mv)	Dissolved Oxygen (mg/L)	Ferrous Iron (mg/L)
MW-1	2/12/2004	--	0.0	11.09	26.19	15.10	23.77	6.65	431	52.8	0.73	3.0
MW-2	2/12/2004	--	0.0	11.20	26.41	15.21	23.19	6.64	553	137.2	0.60	0.0
MW-3	2/12/2004	--	0.0	11.78	26.23	14.45	21.87	6.80	721	-102.7	0.43	3.1
MW-4	2/12/2004	--	0.0	11.21	26.07	14.86	23.76	6.61	625	171.1	0.67	0.0
MW-5	2/12/2004	--	0.0	10.10	26.91	16.81	23.47	6.71	554	42.5	0.61	1.2
MW-6	2/12/2004	--	0.0	10.41	24.29	13.88	22.22	6.38	416	208.9	0.80	0.0
MW-7	2/12/2004	--	0.0	10.85	24.84	13.99	22.21	6.37	664	81.0	0.50	1.1
MW-8	2/12/2004	--	0.0	11.70	26.00	14.30	23.20	6.46	631	13.4	0.55	3.7
MW-9	2/12/2004	--	0.0	11.56	24.67	13.11	21.88	6.65	635	-4.5	0.50	4.2
EW-1	2/12/2004	--	0.0	11.94	26.39	14.45	22.17	6.81	789	-109.1	0.41	5.4

Notes: MSL - Mean Sea Level  
bgs - below ground surface  
Groundwater Elevation reference to MSL  
Groundwater Elevation = Casing Elevation - Depth to Groundwater.

µS/cm - microSiemens per centimeter  
mV - millivolt  
mg/L - milligrams per liter  
NTU - nephelometric turbidity units  
O.R.P. - Oxidation Reduction Potential  
NA - Not analyzed/Not available.  
Ferrous iron - measured in field with HACH (TM) test kit

Table 3  
 2004 First Quarter Groundwater Analytical Results  
 Former Sears Auto Center #1058B  
 2600 Telegraph Avenue  
 Oakland, California

Monitoring Well No.	Sample Date	Notes	TPH (EPA Method 8015M)			Volatile Organics (EPA Method 8260B)											
			TPHg (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>o</sub> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	EDB (µg/L)	EDC (µg/L)	Ethanol (µg/L)
MW-1	2/12/2004	1	<b>74</b>	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 5	< 5	< 500
MW-2	2/12/2004	1	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 5	< 5	< 500
MW-3	2/12/2004	1	<b>687</b>	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 5	< 5	< 500
MW-4	2/12/2004	1	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	<b>2.4</b>	< 2	< 2	< 2	< 10	< 5	< 5	< 500
MW-5	2/12/2004	1	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 5	< 5	< 500
MW-6	2/12/2004	1	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 5	< 5	< 500
MW-7	2/12/2004	1	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 5	< 5	< 500
MW-8	2/12/2004	1	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 5	< 5	< 500
MW-9	2/12/2004	1	<b>54</b>	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 5	< 5	< 500
BW-1	2/12/2004	1	<b>766</b>	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 5	< 5	< 500
	2/12/2004	1,2	<b>833</b>	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 5	< 5	< 500

Notes: 1. "Post-purge" sample  
 2. Duplicate sample analysis.  
 Detected concentrations are depicted in bold  
 < - Analytical result less than the method detection limit indicated.  
 µg/L - micrograms per liter

TPHg - Total Petroleum Hydrocarbons as gasoline range hydrocarbons by EPA Method 8015 (modified).  
 TPH<sub>d</sub> - Total Petroleum Hydrocarbons as diesel range hydrocarbons by EPA Method 8015 (modified).  
 TPH<sub>o</sub> - Total Petroleum Hydrocarbons as oil range hydrocarbons by EPA Method 8015 (modified)  
 MTBE - Methyl Tertiary Butyl Ether  
 DIPE - Di-isopropyl Ether  
 TAME - Tertiary Amyl Methyl Ether  
 TBA - Tertiary Butyl Alcohol  
 ETBE - Ethyl Tertiary Butyl Ether  
 EDB - 1,2-Dibromoethane  
 EDC - 1,2-Dichloroethane

**Table 4**  
**Oakland Specific Tier 1 RBSL's and Tier 2 SSTL's for Soil**  
**Former Sears Auto Center #1058B**  
**Oakland, California**

	Detected Concentration (mg/kg)	Location and Depth	Oakland-Specific Tier 1 RBSLs for Subsurface Soil (mg/kg)											
			Inhalation of Indoor Air Vapors				Inhalation of Outdoor Air Vapors				Ingestion of Groundwater Impacted by Leachate			
			Residential		Commercial/ Industrial		Residential		Commercial/ Industrial		Residential		Commercial/ Industrial	
			Carcinogenic	Hazard	Carcinogenic	Hazard	Carcinogenic	Hazard	Carcinogenic	Hazard	Carcinogenic	Hazard	Carcinogenic	Hazard
Benzene	0.0058	CB7-20	0.069	2.3	1.1	66	0.19	7.6	0.73	44	0.0021	0.0021	0.0021	0.0021
1,1,2-Trichloroethane	0.102	CB1-10	0.54	31	8.7	890	1.5	100	5.8	590	0.0088	0.0088	0.0088	0.0088
	0.394	CB10-10	0.54	31	8.7	890	1.5	100	5.8	590	0.0088	0.0088	0.0088	0.0088
Toluene	0.0116	CB1-10		360		SAT		SAT		SAT	0.88	0.88	0.88	0.88
	0.0073	CB7-20		360		SAT		SAT		SAT	0.88	0.88	0.88	0.88
	1.63	CB8-5		360		SAT		SAT		SAT	0.88	0.88	0.88	0.88
Ethylbenzene	0.0214	CB1-10		SAT		SAT		SAT		SAT	8	8	8	8
	3.07	CB3-5		SAT		SAT		SAT		SAT	8	8	8	8
	39	CB8-5		SAT		SAT		SAT		SAT	8	8	8	8
	0.129	CB8-10		SAT		SAT		SAT		SAT	8	8	8	8
	0.34	CB13-10		SAT		SAT		SAT		SAT	8	8	8	8
Total Xylenes	0.022	CB1-10		SAT		SAT		SAT		SAT	13	13	13	13
	2.89	CB3-5		SAT		SAT		SAT		SAT	13	13	13	13
	0.0184	CB7-20		SAT		SAT		SAT		SAT	13	13	13	13
	160	CB8-5		SAT		SAT		SAT		SAT	13	13	13	13
	0.14	CB13-10		SAT		SAT		SAT		SAT	13	13	13	13
Naphthalene	0.0106	CB1-5		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	0.0436	CB1-10		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	0.0076	CB2-5		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	3.8	CB3-5		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	0.033	CB4-5		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	0.0058	CB4-10		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	0.363	CB5-10		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	20.2	CB8-5		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	0.204	CB8-10		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	0.18	CB10-10		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	0.0114	CB11-15		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	0.135	CB13-10		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2
	0.005	CB13-20		SAT		SAT		SAT		SAT	1.2	1.2	1.2	1.2

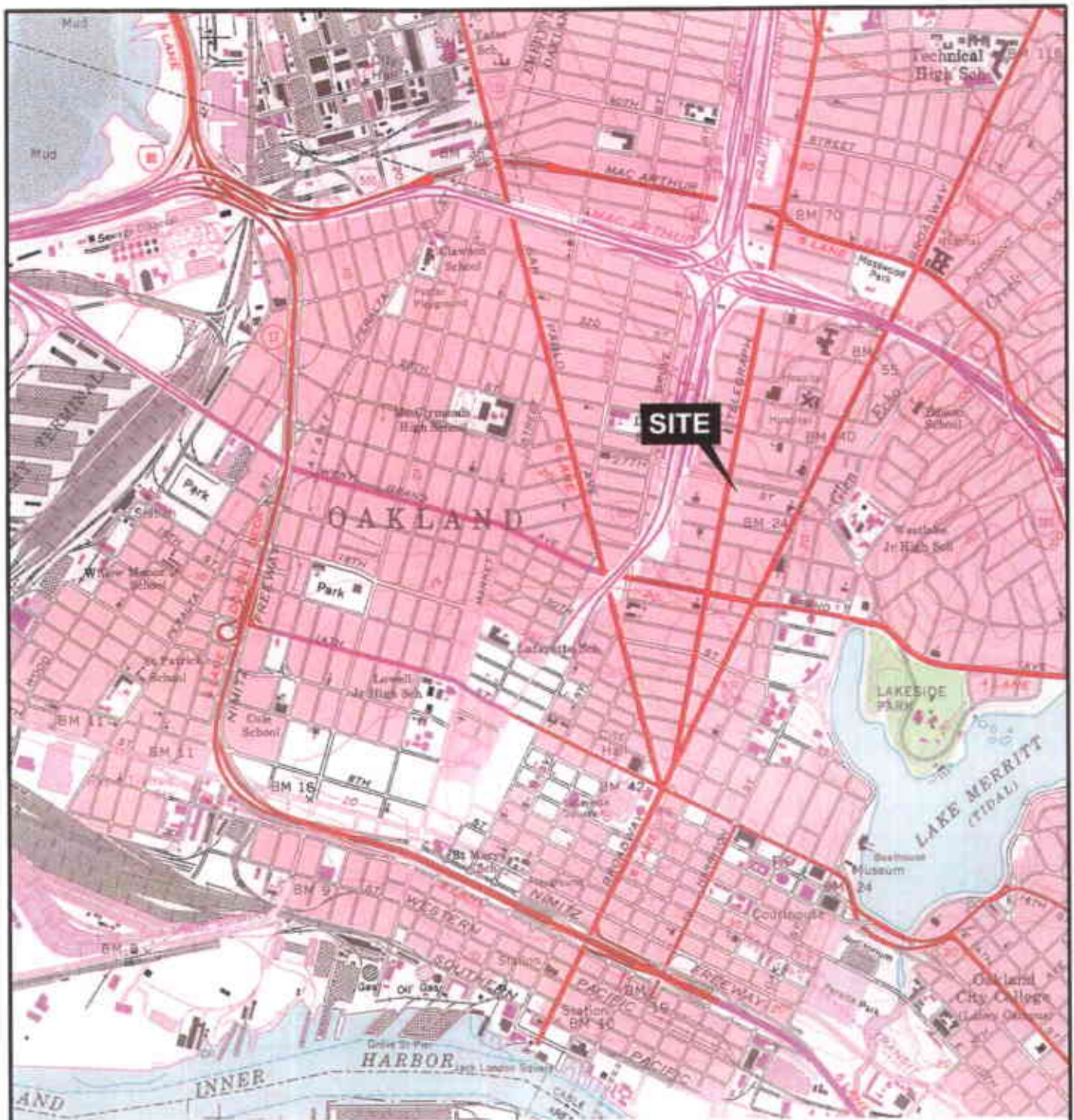
SAT = RBSL exceeds saturated soil concentration of chemical  
mg/Kg = milligrams per kilogram

**Table 4**  
**Oakland Specific Tier 1 RBSL's and Tier 2 SSTL's for for Soil**  
**Former Sears Auto Center #1058B**  
**Oakland, California**

	Detected Concentration (mg/kg)	Location and Depth	Oakland-Specific Tier 2 SSTLs for Merritt Sands (mg/kg)											
			Inhalation of Indoor Air Vapors				Inhalation of Outdoor Air Vapors				Ingestion of Groundwater Impacted by Leachate			
			Residential		Commercial/ Industrial		Residential		Commercial/ Industrial		Residential		Commercial/ Industrial	
			Carcinogenic	Hazard	Carcinogenic	Hazard	Carcinogenic	Hazard	Carcinogenic	Hazard	Carcinogenic	Hazard	Carcinogenic	Hazard
Benzene	0.0058	CB7-20	0.7	2.3	11	67	3.9	16	15	91	0.01	0.01	0.01	0.01
1,1,2-Trichloroethane	0.102	CB1-10	5.6	32	90	920	32	210	120	1200	0.043	0.043	0.043	0.043
	0.394	CB10-10	5.6	32	90	920	32	210	120	1200	0.043	0.043	0.043	0.043
Toluene	0.0116	CB1-10		370		SAT		SAT		SAT	4.2	4.2	4.2	4.2
	0.0073	CB7-20		370		SAT		SAT		SAT	4.2	4.2	4.2	4.2
	1.63	CB8-5		370		SAT		SAT		SAT	4.2	4.2	4.2	4.2
Ethylbenzene	0.0214	CB1-10		SAT		SAT		SAT		SAT	38	38	38	38
	3.07	CB3-5		SAT		SAT		SAT		SAT	38	38	38	38
	39	CB8-5		SAT		SAT		SAT		SAT	38	38	38	38
	0.129	CB8-10		SAT		SAT		SAT		SAT	38	38	38	38
	0.34	CB13-10		SAT		SAT		SAT		SAT	38	38	38	38
Total Xylenes	0.022	CB1-10		SAT		SAT		SAT		SAT	64	64	64	64
	2.89	CB3-5		SAT		SAT		SAT		SAT	64	64	64	64
	0.0184	CB7-20		SAT		SAT		SAT		SAT	64	64	64	64
	160	CB8-5		SAT		SAT		SAT		SAT	64	64	64	64
	0.14	CB13-10		SAT		SAT		SAT		SAT	64	64	64	64
Naphthalene	0.0106	CB1-5		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	0.0436	CB1-10		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	0.0076	CB2-5		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	3.8	CB3-5		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	0.033	CB4-5		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	0.0058	CB4-10		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	0.363	CB5-10		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	20.2	CB8-5		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	0.204	CB8-10		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	0.18	CB10-10		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	0.0114	CB11-15		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	0.135	CB13-10		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8
	0.005	CB13-20		SAT		SAT		SAT		SAT	5.8	5.8	5.8	5.8

SAT = RBSL exceeds saturated soil concentration of chemical  
mg/Kg = milligrams per kilogram





REFERENCE: USGS 7.5 Minute Series Oakland West, CA Quad, 1959, Photorevised 1980

**FIGURE 1**  
**VICINITY MAP**  
 FORMER SEARS AUTO CENTER #1058  
 2600 TELEGRAPH AVENUE  
 OAKLAND, CALIFORNIA  
 For Sears, Roebuck & Co.

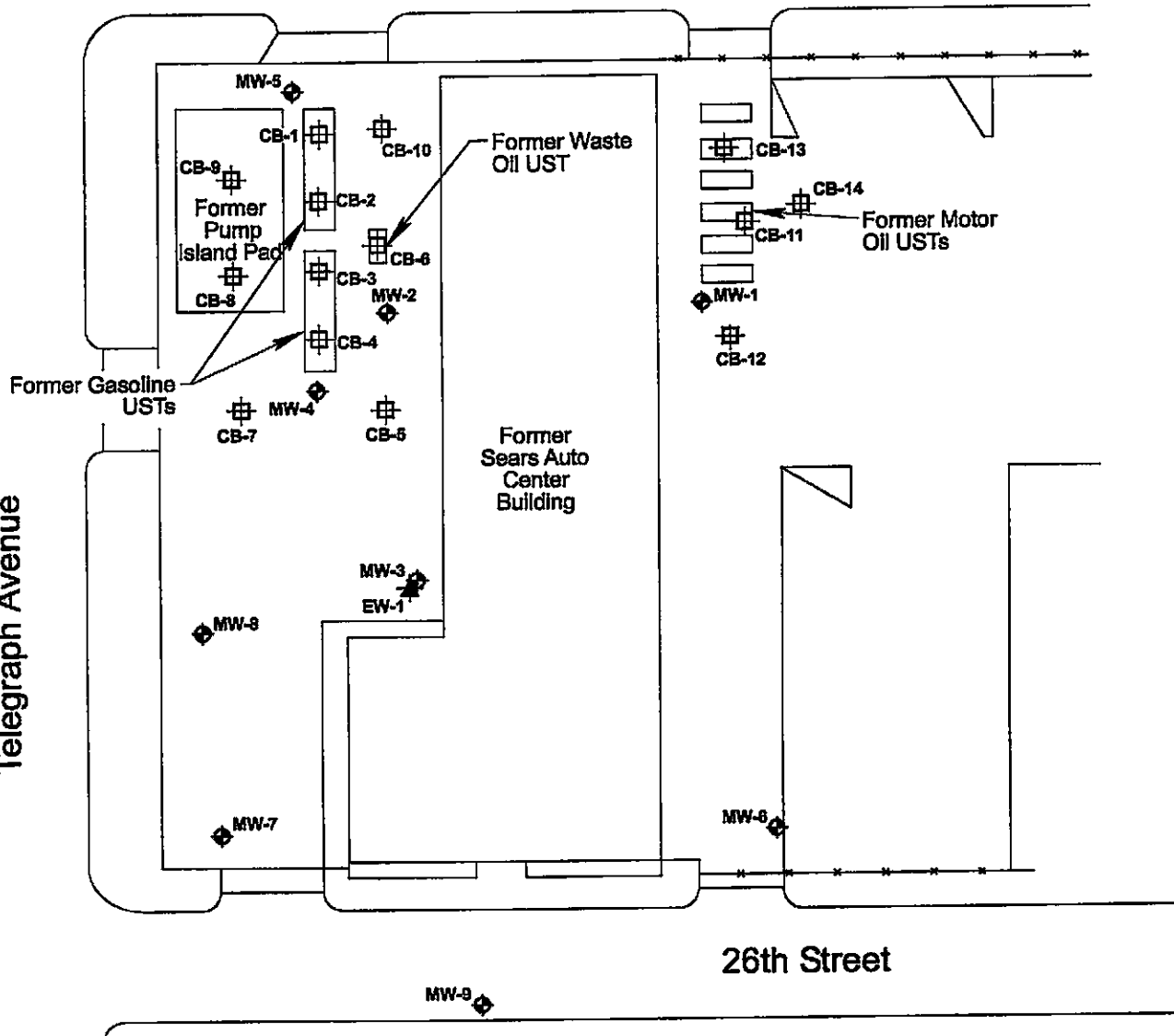


Scale in Miles

**URS**

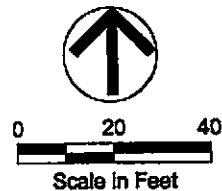
27th Street

Telegraph Avenue



**LEGEND**

- MW-3 MONITORING WELL LOCATION
- EW-1 EXTRACTION WELL LOCATION
- CHAIN LINK FENCE
- CB-1 CONFIRMATION SOIL BORING LOCATION



**PLOT PLAN WITH CONFIRMATION SOIL BORING LOCATIONS**

Project: Sears Auto Center #1058, 2600 Telegraph Avenue, Oakland, CA

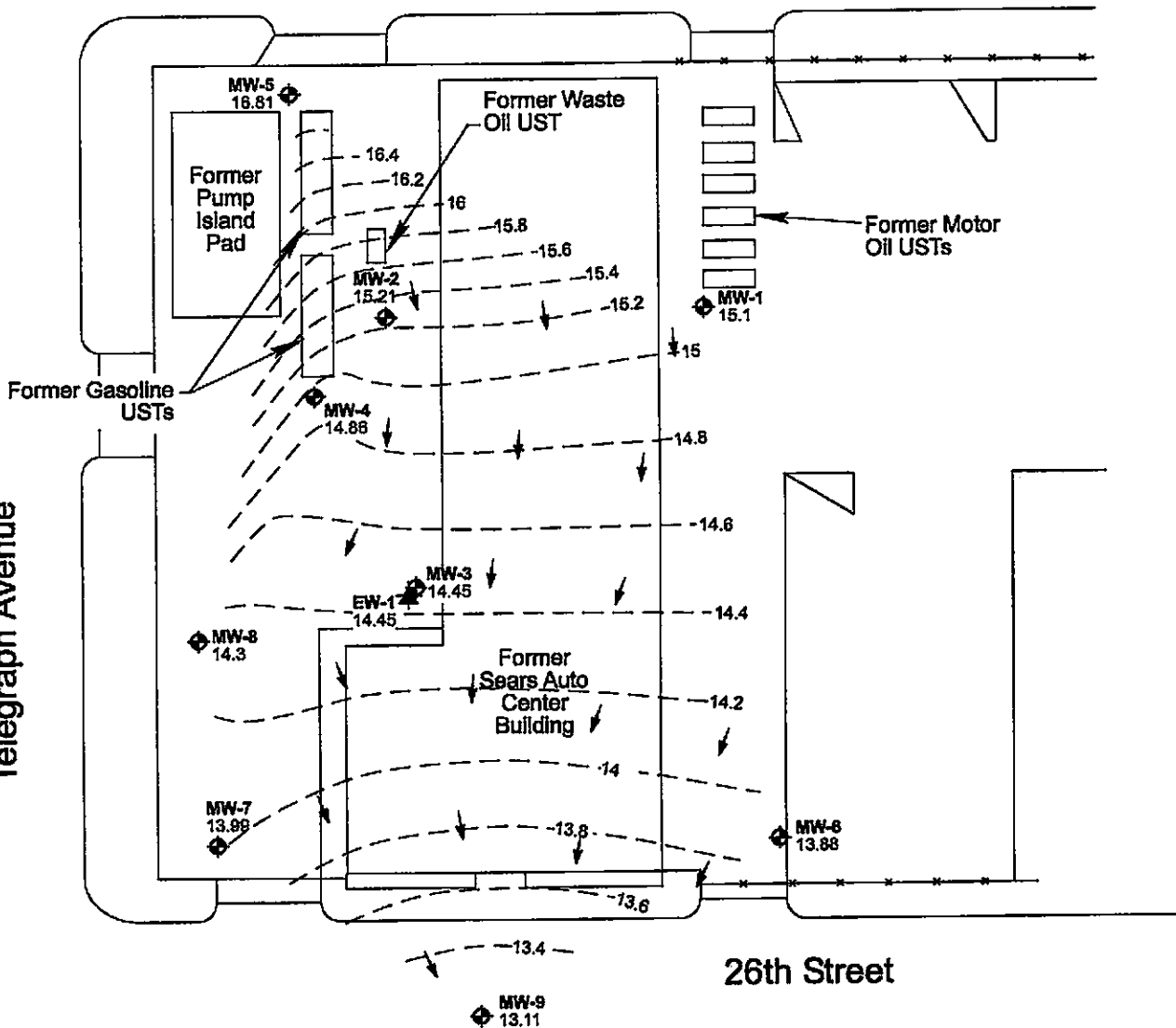
Project No.: 29863494

Date.: APRIL 2004






Figure 2

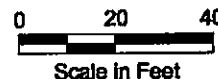
27th Street

Telegraph Avenue



**LEGEND**

-  MW-8 14.30 **MONITORING WELL LOCATION AND GROUNDWATER POTENTIOMETRIC ELEVATION**
-  EW-1 **EXTRACTION WELL LOCATION**
-  **CHAIN LINK FENCE**
-  14 **GROUNDWATER ELEVATION CONTOUR (MSL)**
-  **GROUNDWATER FLOW VECTOR**



**2004 FIRST QUARTER  
GROUNDWATER CONTOUR MAP**

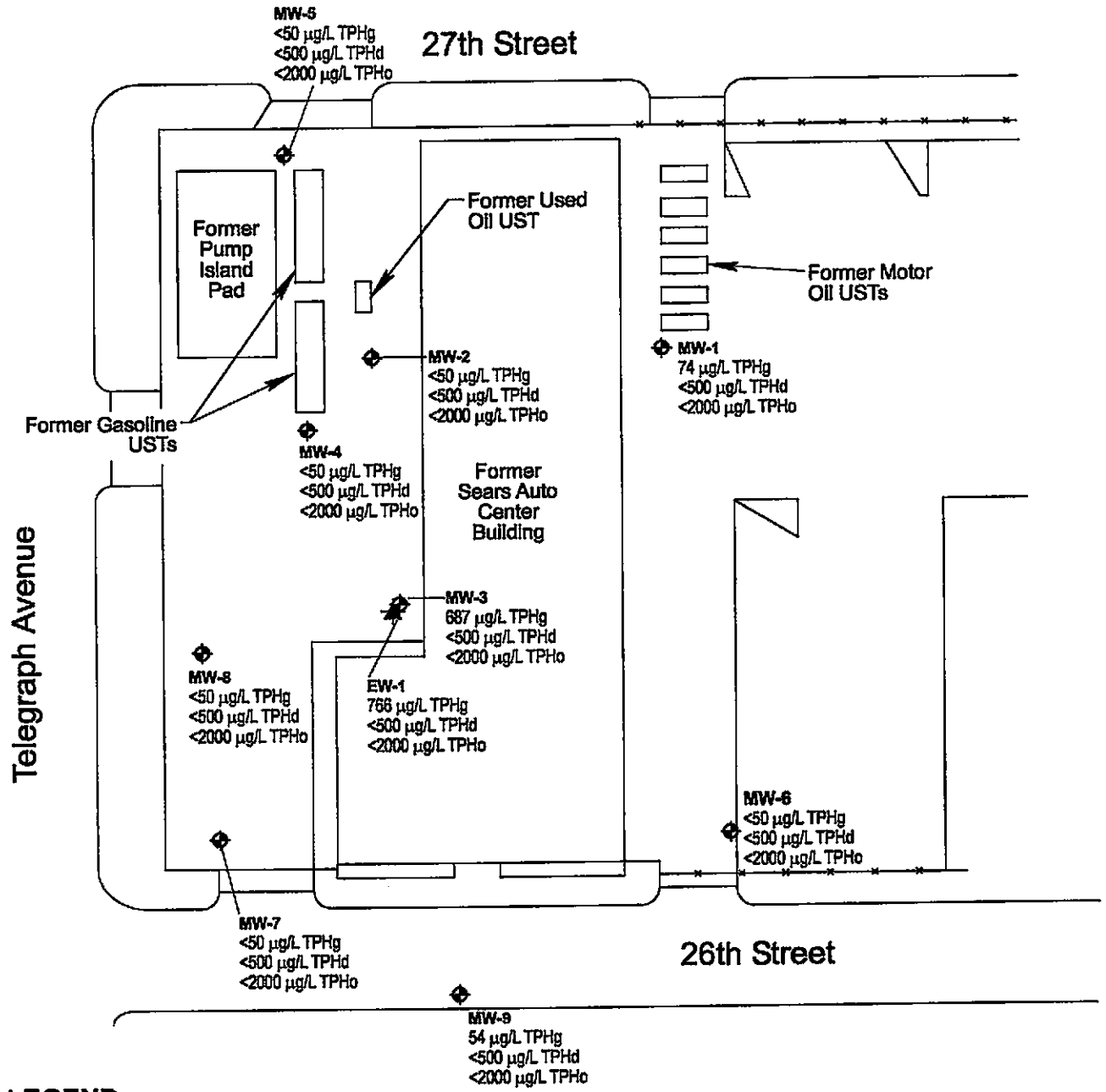
Project: Sears Auto Center #1058B,  
2600 Telegraph Avenue, Oakland, CA

Project No.: 29863494




Date Measured: FEBRUARY 12, 2004

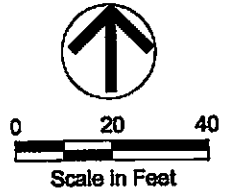
Figure 3

G:/128/Sears\_128/Oakland 2600/2004/1STQtr01/TPH 1ST quart.fh10



**LEGEND**

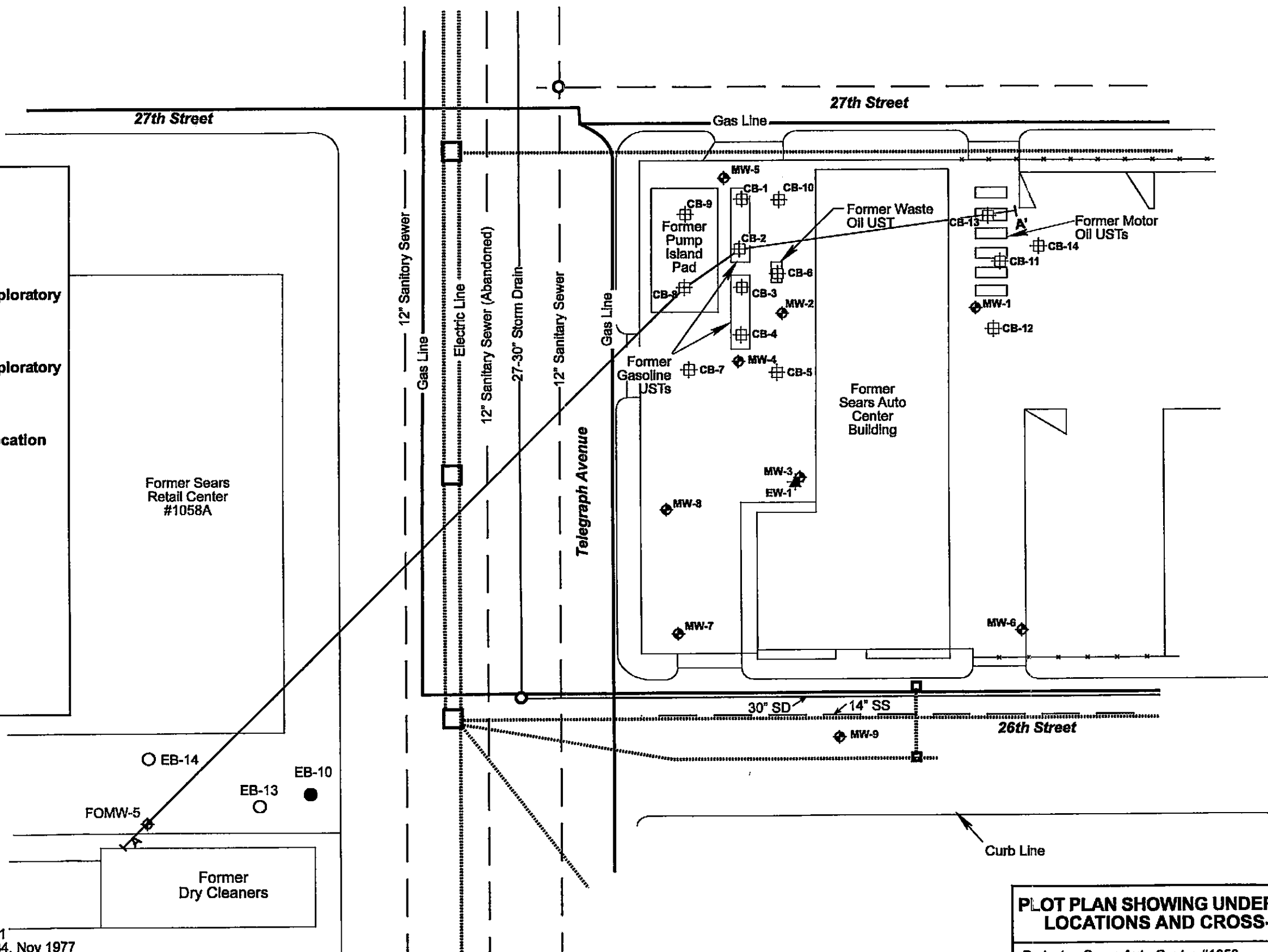
-  **MW-8** MONITORING WELL LOCATION
-  **EW-1** EXTRACTION WELL LOCATION
-  CHAIN LINK FENCE
- TPHg** TOTAL PETROLEUM HYDROCARBONS GASOLINE RANGE
- TPHd** TOTAL PETROLEUM HYDROCARBONS DIESEL FUEL RANGE
- TPHo** TOTAL PETROLEUM HYDROCARBONS MOTOR OIL RANGE
- µg/L** MICROGRAMS PER LITER



<b>2004 FIRST QUARTER TPH CONCENTRATION MAP</b>	
Project: Sears Auto Center #1058B, 2600 Telegraph Avenue, Oakland, CA	
Project No.: 29863494	Figure 4
Sample Date: FEBRUARY 12, 2004	

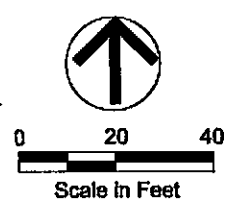
**LEGEND**

- MW-3 Monitoring Well Location
- EW-1 Extraction Well Location
- Approximate Location of Exploratory Boring (Secor, Nov. 1998)
- Approximate Location of Exploratory Boring (Lowney, May 1998)
- Confirmation Soil Boring Location
- Chain Link Fence
- Sanitary Sewer
- Gas Line
- Electric Line
- Storm Drain
- Manhole (Electric)
- Manhole (Storm Drain)



**References**

- East Bay Municipal Utility Map 1488B484, Aug 2001
- Oakland Building Department Sewer Map 1488B484, Nov 1977
- Oakland Building Department Sewer Map 1488B482, Nov 1977
- Pacific Gas and Electric Utility Map F-5-17
- Pacific Gas and Electric Utility Map A-30152
- Site Reconnaissance by URS Feb 17-18, 2004
- Underground Service Alert Field Meeting Feb 17-18, 2004

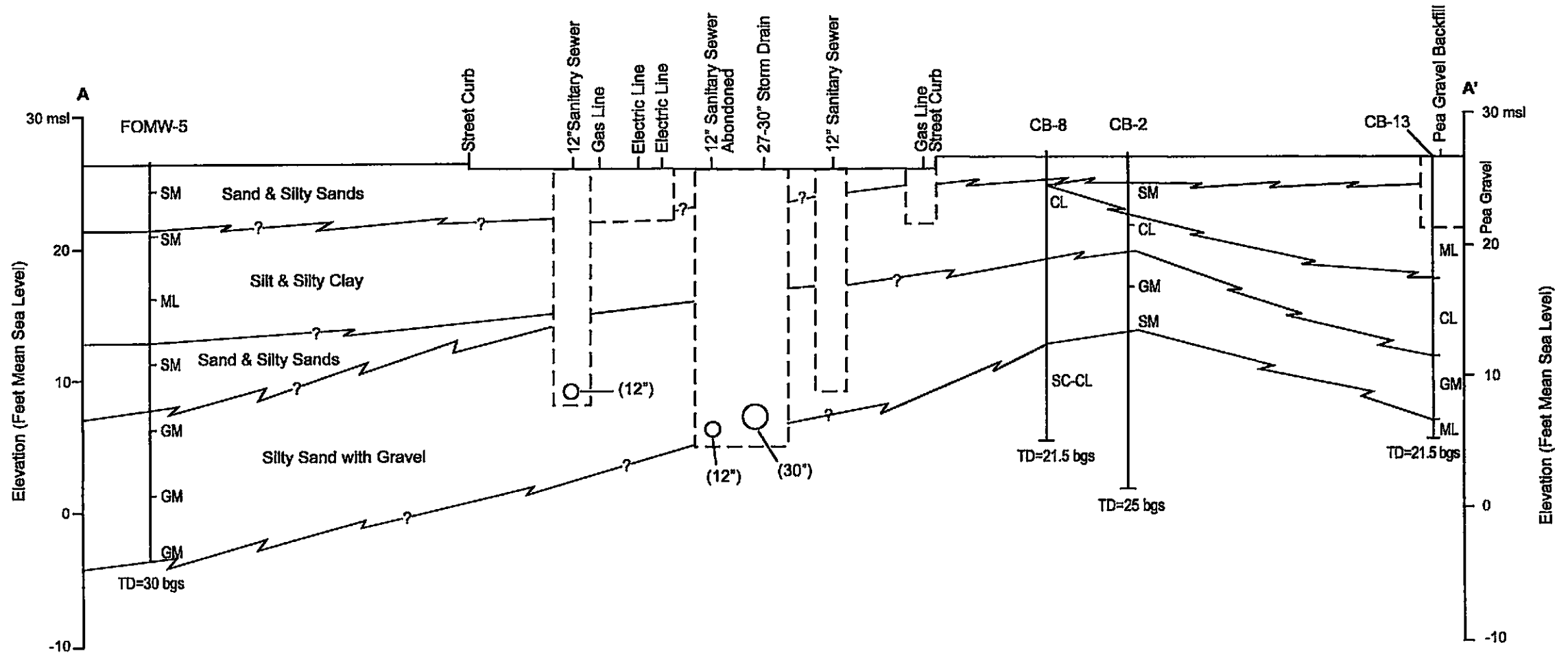


**PLOT PLAN SHOWING UNDERGROUND UTILITY LOCATIONS AND CROSS-SECTION LINE**

Project: Sears Auto Center #1058,  
2600 Telegraph Avenue, Oakland, CA

Project No.: 29863494

Figure 5



- LEGEND**
- bgs Below Ground Surface
  - TD Total Depth
  - ≡ Groundwater Well Screen Interval
  - SM USCS Soil Classification
  - [ ] Approximate Limits of Trenching/ Excavation
  - Underground Piping
  - | SM Confirmed Boring with USCS Classification
  - ? Inferred Contact

**References**

- East Bay Municipal Utility Map 1488B484, Aug 2001
- Oakland Building Department Sewer Map 1488B484, Nov 1977
- Oakland Building Department Sewer Map 1488B482, Nov 1977
- Pacific Gas and Electric Utility Map F-5-17
- Pacific Gas and Electric Utility Map A-30152
- Site Reconnaissance by URS Feb 17-18, 2004
- Underground Service Alert Field Meeting Feb 17-18, 2004

Horizontal Scale: 1" = 40'  
 Vertical Scale: 1" = 10'

<b>GEOLOGIC CROSS SECTION A-A' SHOWING UNDERGROUND UTILITY LOCATIONS AND CROSS-SECTION LINE</b>	
Project:	FORMER SEARS AUTO CENTER #1058B 2600 TELEGRAPH AVE., OAKLAND, CA
Project No.:	29863494
Drill Dates:	Feb. 17-18, 2004
Figure 6	

**APPENDIX A**  
**ACEHS CORRESPONDANCE**



June 5, 2003

Mr. Don Hwang  
Hazardous Materials Specialist  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Number 250  
Alameda, California 94502

Subject: **Response to Comments and Work Plan Addendum**  
**Former Sears Auto Center #1058B**  
**2600 Telegraph Ave.**  
**Oakland, California**  
**Case I.D. # STID 1082**  
**For Sears, Roebuck & Co.**

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Dear Mr. Hwang:

The following are responses to comments provided in the April 11, 2003 Alameda County Environmental Health Services (ACEHS) correspondence. ACEHS requested that their technical comments be addressed and a Work Plan Addendum be submitted in response to the *2003 Third Quarter Groundwater Monitoring Report and Work Plan for Confirmation Borings* dated January 23, 2003. The ACEHD comments are italicized and the URS responses are provided in regular text below each comment.

#### Technical Comments

*1. Proposed Boring Locations –*

- a. T7 – Location was previously sampled.*
- b. T5 – The report describing the removal of the tanks did not include T5 as one of those with poor integrity and holes. T6 was noted to have a cracked seam on its southwestern weld and the soil to the north and south of the tank was stained.*
- c. In the area of the gasoline tanks – We do not have a report describing the removal of these tanks. Please provide so that we can determine the locations previously sampled.*

*Please review the proposed sample locations. Modify and/or explain the choice of locations. Include your proposal in the Workplan Addendum requested below.*

The proposed confirmation boring locations were placed in a grid pattern throughout the former tank locations to collect current data from the former underground storage tank (UST) areas regardless of the historical site data. The proposed boring locations in the areas of removed UST-T5 and UST-T7 will be eliminated if not required by ACEHS. Sears is currently searching archived files for data regarding the removal of the gasoline USTs. The available data will be forwarded to ACEHS shortly.



2. *EW- 1 – This extraction well is located adjacent to MW-3. MW-3 formerly contained SPH. Please indicated if EW- 1 was ever used for extraction and if so, indicate when and details. Please report your results in the Soil and Water Investigation Report (SWI) Report requested below.*

Historical site data indicates that well EW-1 was never utilized as an extraction well. The historical groundwater monitoring data indicates that separate phase product was periodically present in well MW-3 from September 1993 until August 2000, and has not been observed in subsequent quarterly monitoring events. Historical chemical analysis results indicated that the separate phase product observed in well MW-3 consists of TPHg, TPHd, and oil range hydrocarbons (TPHo). This information regarding the separate phase product at the site is provided in the Background section of URS' quarterly groundwater monitoring reports.

3. *Groundwater Analyses – We request that you include analyses for the other fuel oxygenates Tertiary Amyl Methyl Ether (TAME), Ethyl Tertiary Butyl Ether (ETBE), Di-Isopropyl Ether (DIPE), and Tertiary Butyl Alcohol (TBA), Ethanol by EPA Method 8260 and lead scavengers, Ethylene Dibromide (EDB), Ethylene Dichloride (EDC). If any of the latter compounds are detected, and are determined to be of concern (poses a risk to human health, the environment, or water resources) it is to be incorporated into your regular monitoring plan.*

All groundwater samples have been analyzed for ETBE, TBA, TAME, DIPE, and the lead scavengers: EDB and EDC by EPA Method 8260B since the second quarter 2002 sampling event. URS will also analyze all groundwater samples for Ethanol by EPA Method 8260B in future sampling events.

4. *Historical Hydraulic Gradient – Please provide rose diagrams, which include cumulative groundwater gradients in all future reports submitted for this site.*

Comment acknowledged.

5. *Well Survey – List wells within a quarter mile radius of the site. Indicate which of these may be potential receptors. Please report your results in the Soil and Water Investigation Report (SWI) Report requested below.*

Comment acknowledged.

6. *Preferential Pathway Study – We request that you perform a preferential pathway study that details the potential migration pathways and potential conduits (wells, utilities, pipelines, etc.) for horizontal and vertical migration that may be present in the vicinity of the site. Of particular concern is the identification of abandoned wells and improperly-destroyed wells in the vicinity of your site, and manmade conduits for shallow migration.*

Former Sears Auto Center #1058B  
June 5, 2003  
Page 3 of 3

*Discuss your analysis and interpretation of the results of the preferential pathway study (including the detailed well survey and utility survey requested below). Please include an evaluation of the probability of the contaminant plumes encountering preferential pathways and conduits that could spread the contamination, particularly in the vertical direction to deeper water aquifers.*

*An evaluation of all utility lines and trenches (including sewers, storm drains, pipelines, trench backfill, etc.) within and near the site plume area(s) is required as part of your study. Submittal of map(s) and cross-sections showing the location and depth of all utility lines and trenches within and near the site and plume(s) is required as part of your study. Please report your results in the Soil and Water Investigation Report (SWI) requested below.*

Comment acknowledged.

Feel free to contact Joseph Liles or me at (714) 835-6886 if you have any questions or comments regarding the responses to VCEHD comments and requirements.

Respectfully submitted,  
**URS CORPORATION**

J.S. Rowlands, R.G., C.HG.  
Senior Project Geologist

Joseph liles  
Senior Staff Geologist

cc: Mr. Scott DeMuth – Sears, Roebuck & Co.

August 26, 2003

Mr. Don Hwang  
Hazardous Materials Specialist  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Number 250  
Alameda, California 94502

Subject: **Response to Comments**  
**Former Sears Auto Center #1058B**  
**2600 Telegraph Ave.**  
**Oakland, California**  
**Case I.D. # STID 1082**  
**For Sears, Roebuck & Co.**

---

Dear Mr. Hwang:

The following are responses to comments provided in the July 8, 2003 Alameda County Environmental Health Services (ACEHS) correspondence. ACEHS requested that their technical comments are addressed and the requested technical reports submitted. The ACEHS comments are italicized and the URS responses are provided in regular text below each comment.

#### **Technical Comments**

##### *1) Proposed Boring Locations –*

- a. T5 – The report describing the removal of the tanks did not include T5 as one of those with poor integrity and holes. T6 was noted to have a cracked seam on its southwestern weld and the soil to the north and south of the tank was stained. It appears that sample locations ought to be by T6 instead of T5. If you agree, propose sample locations by T6.*
- b. In the area of the gasoline tanks – We do not have a report describing the removal of these tanks, including sample locations and results. Without such information, sampling may be duplicated. Please provide so that we can determine the locations previously sampled.*

The proposed confirmation boring locations were placed in a grid pattern throughout the former tank locations to collect current data from the former underground storage tank (UST) areas regardless of the historical site data. The proposed boring location in the area of removed UST-T5 will be moved to UST-T6. A figure showing the revised proposed confirmation soil boring locations is provided in Attachment A.

Sears' has completed a review of the archived project files. No reports or data regarding the removal of the gasoline USTs at the former auto center were found. Subsurface soils in the areas of the removed gasoline USTs will be evaluated during the site closure assessment.

Former Sears Auto Center #1058B  
August 26, 2003  
Page 2 of 2

### **Technical Report Request**

*Please submit the information requested to Alameda County Environmental Health (Attention: Don Hwang), by September 8, 2003.*

Comment acknowledged.

Feel free to contact me at (714) 648-2793 if you have any questions or comments regarding the responses to ACEHS comments and requirements.

Respectfully submitted,  
**URS CORPORATION**

J.S. Rowlands, R.G., C.HG.  
Senior Project Geologist

Attachments:

Attachment A: Figure Showing Revised Confirmation Soil Boring Locations

cc: Mr. Scott DeMuth – Sears, Roebuck & Co.

January 22, 2004

Mr. Don Hwang  
Hazardous Materials Specialist  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Number 250  
Alameda, California 94502

Subject: **Work Plan Addendum #2**  
**Former Sears Auto Center #1058B**  
**2600 Telegraph Ave.**  
**Oakland, California**  
**Case I.D. # STID 1082**  
**For Sears, Roebuck & Co.**

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Dear Mr. Hwang:

The following Work Plan Addendum is in response to our telephone conversation on January 21, 2004. Because historical soil sample data is not available for the removed gasoline USTs at the above referenced site, Alameda County Environmental Health Services (ACEHS) requests that two confirmation soil borings be completed per each removed gasoline UST. The proposed soil boring locations are provided on the attached figure.

Soil samples will be collected and analyzed from the borings using the methods described in URS' 2002 Third Quarter Groundwater Monitoring Report and Work Plan for Confirmation Soil Borings dated January 23, 2003.

Feel free to contact me at (714) 648-2793 if you have any questions or comments regarding the revised boring locations.

Respectfully submitted,  
URS CORPORATION

J.S. Rowlands, R.G., C.HG.  
Project Manager

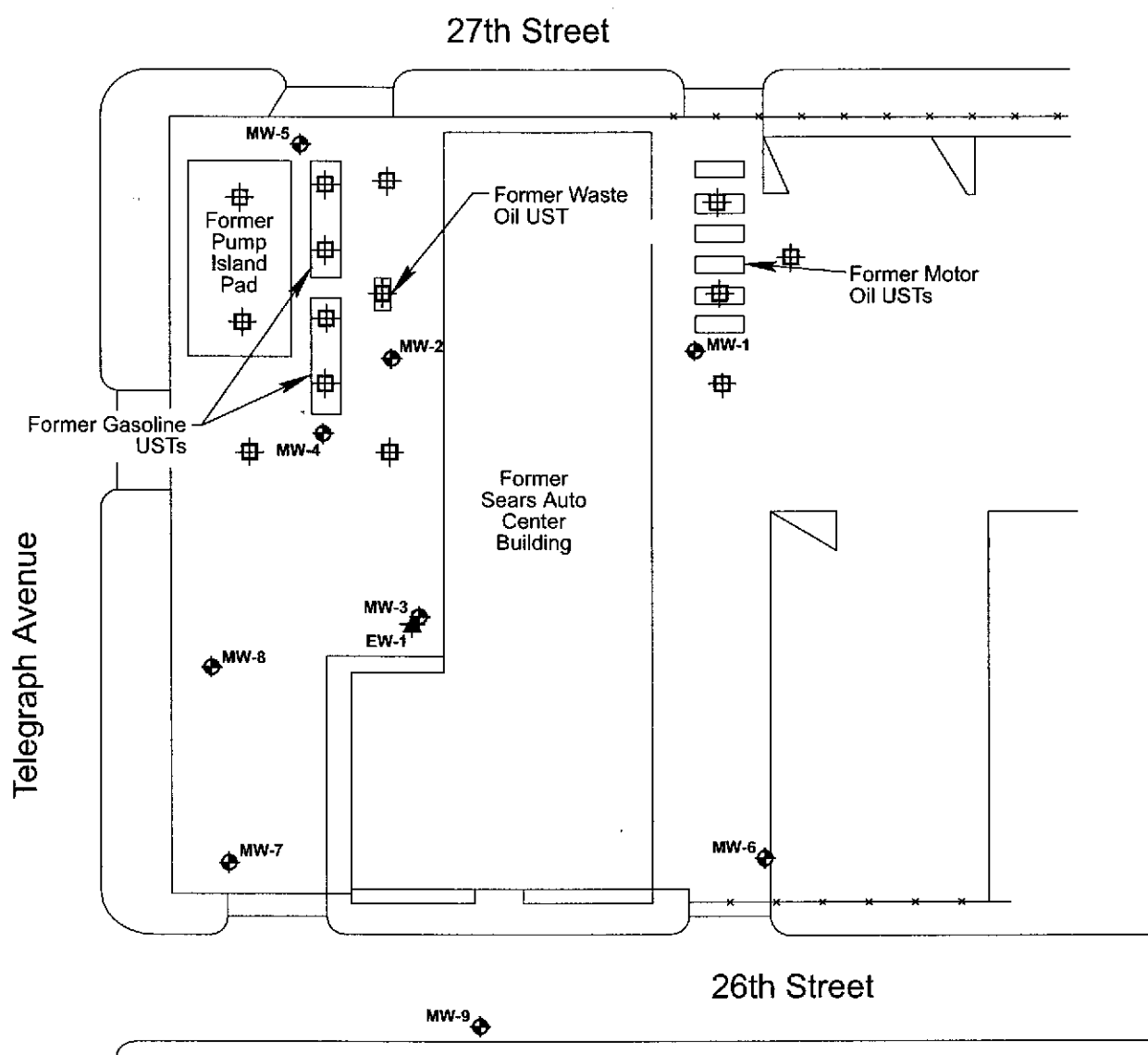
Attachments:

Attachment A: Figure Showing Revised Confirmation Soil Boring Locations





cc: Mr. Scott DeMuth – Sears, Roebuck & Co.

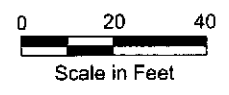
**ATTACHMENT A:  
FIGURE SHOWING REVISED CONFIRMATION SOIL BORING LOCATIONS**

G:\128\Sears\_128\Oakland\2600 Telegraph Ave\2003\4thQtrGW03\Figures\proposed confirm



**LEGEND**

-  **MONITORING WELL LOCATION**
-  **EXTRACTED WELL LOCATION**
-  **CHAIN LINK FENCE**
-  **PROPOSED CONFIRMATION SOIL BORING LOCATION**



<b>PROPOSED CONFIRMATION SOIL BORING LOCATIONS</b>	
Project: Sears Auto Center #1058, 2600 Telegraph Avenue, Oakland, CA	
Project No.: 29863494	
Date.: JANUARY 2003	Figure 2



**APPENDIX B**  
**HISTORICAL GROUNDWATER MONITORING RESULTS**



Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS										
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>g</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>n</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals	
MW-1		12/30/92	10.60	--	0.00	26.20	15.60	---	---	---	---	1	1	1	2	2	---	---
MW-1		02/26/93	10.14	--	0.00	26.20	16.06	---	---	---	---	---	---	---	---	---	---	---
MW-1		03/24/93	10.48	--	0.00	26.20	15.72	---	---	---	---	1	0.4	1	0.32	10	---	---
MW-1		04/27/93	11.30	--	0.00	26.20	14.90	---	---	---	---	---	---	---	---	---	---	---
MW-1		05/28/93	11.43	--	0.00	26.20	14.77	---	---	---	---	---	---	---	---	---	---	---
MW-1		06/21/93	11.71	--	0.00	26.20	14.49	---	---	< **100	---	< 0.3	1	< 0.3	6	---	---	
MW-1		07/22/93	11.87	--	0.00	26.20	14.33	---	---	---	---	---	---	---	---	---	---	---
MW-1		08/13/93	11.94	--	0.00	26.20	14.26	---	---	---	---	---	---	---	---	---	---	---
MW-1		09/16/93	12.05	--	0.00	26.20	14.15	---	---	< **100	---	< 0.3	0.7	2	7	---	---	
MW-1		10/22/93	12.00	--	0.00	26.20	14.20	---	---	---	---	---	---	---	---	---	---	---
MW-1		11/03/93	12.10	--	0.00	26.20	14.10	---	---	---	---	---	---	---	---	---	---	---
MW-1		12/01/93	11.46	--	0.00	26.20	14.74	---	---	---	---	---	0.4	1	---	7	---	---
MW-1		12/27/93	11.58	--	0.00	26.20	14.62	---	---	---	---	---	---	---	---	---	---	---
MW-1		12/30/93	--	--	--	26.20	--	---	---	< 100	---	---	---	---	1	---	---	---
MW-1		01/05/94	11.69	--	0.00	26.20	14.51	---	---	---	---	---	---	---	---	---	---	---
MW-1		02/08/94	11.87	--	0.00	26.20	14.33	---	---	---	---	---	---	---	---	---	---	---
MW-1		03/09/94	11.08	--	0.00	26.20	15.12	---	---	< 100	---	< 0.3	< 0.3	2.4	4.2	---	---	---
MW-1		04/01/94	11.47	--	0.00	26.20	14.73	---	---	---	---	---	---	---	---	---	---	---
MW-1		05/10/94	10.77	--	0.00	26.20	15.43	---	---	---	---	---	---	---	---	---	---	---
MW-1		06/30/94	11.82	--	0.00	26.20	14.38	---	---	< 100	---	0.6	0.7	1.4	15	---	---	---
MW-1		07/28/94	11.90	--	0.00	26.20	14.30	---	---	---	---	---	---	---	---	---	---	---
MW-1		08/31/94	11.94	--	0.00	26.20	14.26	---	---	---	---	---	---	---	---	---	---	---
MW-1		09/27/94	12.04	--	0.00	26.20	14.16	---	---	< 250	---	0.9	0.5	< 0.3	10	---	---	---
MW-1		10/28/94	12.06	--	0.00	26.20	14.14	---	---	---	---	---	---	---	---	---	---	---
MW-1		11/15/94	10.02	--	0.00	26.20	16.18	---	---	---	---	---	---	---	---	---	---	---
MW-1		12/01/94	10.61	--	0.00	26.20	15.59	---	---	< 250	---	0.4	0.4	< 0.3	6.6	---	---	---
MW-1		01/04/95	9.93	--	0.00	26.20	16.27	---	---	---	---	---	---	---	---	---	---	---
MW-1		02/01/95	9.56	--	0.00	26.20	16.64	---	---	---	---	---	---	---	---	---	---	---
MW-1		03/08/95	10.51	--	0.00	26.20	15.69	---	---	< 250	---	< 0.3	0.6	4.7	2.7	---	---	---
MW-1		04/03/95	--	--	--	26.20	--	---	---	---	---	---	---	---	---	---	---	---
MW-1		05/18/95	10.80	--	0.00	26.20	15.40	---	---	---	---	---	---	---	---	---	---	---
MW-1		06/09/95	11.18	--	0.00	26.20	15.02	---	---	< 250	---	< 0.3	1.4	3.9	5.6	---	---	---
MW-1		07/13/95	11.27	--	0.00	26.20	14.93	---	---	---	---	---	---	---	---	---	---	---
MW-1		08/03/95	11.48	--	0.00	26.20	14.72	---	---	---	---	---	---	---	---	---	---	---
MW-1		08/29/95	11.56	--	0.00	26.20	14.64	---	---	< 250	---	0.3	0.9	< 0.5	2.8	---	---	---
MW-1		09/15/95	11.71	--	0.00	26.20	14.49	---	---	---	---	---	---	---	---	---	---	---
MW-1		10/20/95	11.80	--	0.00	26.20	14.40	---	---	---	---	---	---	---	---	---	---	---
MW-1		11/15/95	11.61	--	0.00	26.20	14.59	---	---	< 200	---	< 0.5	< 0.5	< 1.0	27	---	---	---

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS									
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>c</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>n</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals
MW-1		01/15/96	11.21	--	0.00	26.20	14.99	---	---	---	---	---	---	---	---	---	---
MW-1		03/05/96	9.35	--	0.00	26.20	16.85	---	---	< 200	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---
MW-1		04/19/96	10.60	--	0.00	26.20	15.60	---	---	---	---	---	---	---	---	---	---
MW-1		05/10/96	11.18	--	0.00	26.20	15.02	---	---	---	---	---	---	---	---	---	---
MW-1		06/03/96	10.90	--	0.00	26.20	15.30	340	---	< 200	---	< 0.5	< 1.0	3.7	3.4	---	---
MW-1		09/04/96	11.31	--	0.00	26.20	14.89	390	---	310	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---
MW-1		12/02/96	10.61	--	0.00	26.20	15.59	400	---	< 200	---	< 0.5	< 1.0	< 1.0	2.7	---	---
MW-1		02/26/97	10.31	--	0.00	26.20	15.89	390	---	< 200	---	< 0.5	< 1.0	< 1.0	4.5	---	---
MW-1		06/09/97	11.25	--	0.00	26.20	14.95	340	---	< 200	---	< 0.5	< 1.0	< 0.5	2.3	< 10	---
MW-1		08/25/97	11.15	--	0.00	26.20	15.05	220	---	< 200	---	< 0.5	< 0.5	< 0.5	3	< 5	---
MW-1		11/28/97	10.07	--	0.00	26.20	16.13	340	---	< 200	---	< 0.5	< 0.5	< 0.5	3	6.0	---
MW-1		02/12/98	8.70	--	0.00	26.20	17.50	280	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2.0	< 5	---
MW-1		05/20/98	10.89	--	0.00	26.20	15.31	340	---	< 200	---	< 0.5	< 0.5	0.8	3	< 5	---
MW-1		08/11/98	11.60	--	0.00	26.20	14.60	230	---	< 500	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---
MW-1		11/10/98	11.10	--	0.00	26.20	15.10	150	---	< 250	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---
MW-1		02/11/99	9.40	--	0.00	26.20	16.80	260	---	< 500	---	< 0.5	< 0.5	1	1.6	6.7	---
MW-1		05/11/99	11.05	--	0.00	26.20	15.15	160	---	< 250	---	< 0.5	0.54	< 0.5	4.7	< 2.5	---
MW-1		08/10/99	11.66	--	0.00	26.20	14.54	230	---	< 250	---	< 0.5	0.79	< 0.5	2.8	< 2.0	---
MW-1		10/26/99	12.90	--	0.00	26.20	13.30	95	---	< 250	---	< 0.5	< 0.5	0.64	1.2	< 2.5	---
MW-1		02/25/00	9.80	--	0.00	26.20	16.40	330	---	310	---	< 0.5	< 0.5	< 0.5	< 0.5	1.6	---
MW-1		05/03/00	10.90	--	0.00	26.20	15.30	220	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	1.5	---
MW-1		08/02/00	11.40	--	0.00	26.20	14.80	170	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	1.1	---
MW-1		11/07/00	10.83	--	0.00	26.20	15.37	250	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	0.9	---
MW-1		02/15/01	9.40	--	0.00	26.20	16.80	350	---	200	---	< 0.5	< 0.5	< 0.5	< 0.5	1.0	---
MW-1		04/26/01	10.43	--	0.00	26.20	15.77	310	---	200	---	< 0.5	< 0.5	< 0.5	< 0.5	1.5	---
MW-1		07/23/01	11.27	--	0.00	26.20	14.93	180	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	1.7	---
MW-1		11/01/01	10.90	--	0.00	26.20	15.30	200	---	120	---	< 0.5	< 0.5	< 0.5	< 0.5	1.6	---
MW-1	2	03/28/02	9.80	--	0.00	26.20	16.40	120	92	< 500	---	< 0.5	< 0.5	< 0.5	< 1.0	< 5.0	---
MW-1	2	06/06/02	10.44	--	0.00	26.19	15.75	147	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-1	2,3	06/06/02	10.44	--	0.00	26.19	15.75	107	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-1	2	09/07/02	11.31	--	0.00	26.19	14.88	95	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-1	2	12/11/2002	11.25	--	0.00	26.19	14.94	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-1	2	3/12/2003	10.79	--	0.00	26.19	15.40	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-1	2	6/5/2003	10.98	--	0.00	26.19	15.21	86	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-1	2	9/26/2003	11.60	--	0.00	26.19	14.59	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-1	2,3	9/26/2003	11.60	--	0.00	26.19	14.59	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-1	2	12/5/2003	10.25	--	0.00	26.19	15.94	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-1	2	2/12/2004	11.09	--	0.00	26.19	15.10	74	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS										
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>c</sub> (µg/L)	TPH <sub>a</sub> (µg/L)	TPH <sub>b</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals	
MW-2		12/30/92	10.65	--	0.00	26.50	15.85	190	---	---	---	1	0.7	< 0.3	< 0.3	3	---	ND
MW-2		02/26/93	10.56	--	0.00	26.50	15.94	---	---	---	---	---	---	---	---	---	---	---
MW-2		03/24/93	10.52	--	0.00	26.50	15.98	120	---	---	---	< 1	0.6	< 0.3	< 0.3	2	---	ND
MW-2		04/27/93	11.17	--	0.00	26.50	15.33	---	---	---	---	---	---	---	---	---	---	---
MW-2		05/28/93	11.12	--	0.00	26.50	15.38	---	---	---	---	---	---	---	---	---	---	---
MW-2		06/21/93	11.41	--	0.00	26.50	15.09	82	---	---	< **100	---	0.3	< 0.3	< 0.3	0.7	---	ND
MW-2		07/22/93	11.50	--	0.00	26.50	15.00	---	---	---	---	---	---	---	---	---	---	---
MW-2		08/13/93	11.54	--	0.00	26.50	14.96	---	---	---	---	---	---	---	---	---	---	---
MW-2		09/16/93	11.62	--	0.00	26.50	14.88	28	---	---	< **100	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-2		10/22/93	11.57	--	0.00	26.50	14.93	---	---	---	---	---	---	---	---	---	---	---
MW-2		11/03/93	11.65	--	0.00	26.50	14.85	---	---	---	---	---	---	---	---	---	---	---
MW-2		11/24/93	11.52	--	0.00	26.50	14.98	---	---	---	---	---	---	---	---	---	---	---
MW-2		12/01/93	11.08	--	0.00	26.50	15.42	68	---	---	---	---	< 0.3	< 0.3	< 0.3	1	---	ND
MW-2		12/27/93	11.27	--	0.00	26.50	15.23	---	---	---	---	---	---	---	---	---	---	---
MW-2		12/30/93	--	--	--	26.50	--	---	---	---	---	---	---	---	---	---	---	---
MW-2		01/05/94	11.39	--	0.00	26.50	15.11	---	---	---	---	---	---	---	---	---	---	---
MW-2		02/08/94	11.49	--	0.00	26.50	15.01	---	---	---	---	---	---	---	---	---	---	---
MW-2		03/09/94	11.06	--	0.00	26.50	15.44	47	---	---	< 100	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-2		04/01/94	11.25	--	0.00	26.50	15.25	---	---	---	---	---	---	---	---	---	---	---
MW-2		05/10/94	10.83	--	0.00	26.50	15.67	---	---	---	---	---	---	---	---	---	---	---
MW-2		06/30/94	11.44	--	0.00	26.50	15.06	< 10	---	---	100	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-2		07/28/94	11.48	--	0.00	26.50	15.02	---	---	---	---	---	---	---	---	---	---	---
MW-2		08/31/94	11.56	--	0.00	26.50	14.94	---	---	---	---	---	---	---	---	---	---	---
MW-2		09/27/94	11.61	--	0.00	26.50	14.89	< 10	---	---	< *250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	<sup>d</sup> 15
MW-2		10/28/94	11.65	--	0.00	26.50	14.85	---	---	---	---	---	---	---	---	---	---	---
MW-2		11/15/94	9.65	--	0.00	26.50	16.85	---	---	---	---	---	---	---	---	---	---	<sup>d</sup> 6
MW-2		12/01/94	10.71	--	0.00	26.50	15.79	54	---	---	*1,300	---	< 0.3	< 0.3	< 0.3	< 0.5	---	---
MW-2		01/04/95	10.11	--	0.00	26.50	16.39	---	---	---	---	---	---	---	---	---	---	---
MW-2		02/01/95	10.38	--	0.00	26.50	16.12	---	---	---	---	---	---	---	---	---	---	---
MW-2		03/08/95	10.80	--	0.00	26.50	15.70	< 10	---	---	3,000	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-2		04/03/95	10.61	--	0.00	26.50	15.89	---	---	---	---	---	---	---	---	---	---	---
MW-2		05/18/95	10.95	--	0.00	26.50	15.55	---	---	---	---	---	---	---	---	---	---	---
MW-2		06/09/95	11.13	--	0.00	26.50	15.37	< 50	---	---	2,000	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-2		07/13/95	11.15	--	0.00	26.50	15.35	---	---	---	---	---	---	---	---	---	---	---
MW-2		08/03/95	11.26	--	0.00	26.50	15.24	---	---	---	---	---	---	---	---	---	---	---
MW-2		08/29/95	11.32	--	0.00	26.50	15.18	< 50	---	---	4,300	---	< 0.3	< 0.3	< 0.3	< 0.5	---	<sup>h</sup> 20
MW-2		09/15/95	11.42	--	0.00	26.50	15.08	---	---	---	---	---	---	---	---	---	---	---
MW-2		10/20/95	11.42	--	0.00	26.50	15.08	---	---	---	---	---	---	---	---	---	---	---

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS										
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>p</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>n</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals	
MW-2		11/15/95	11.37	--	0.00	26.50	15.13	< 50	---	6,100	---	< 0.5	< 0.5	< 0.5	< 0.5	---	ND	
MW-2		01/15/96	11.10	--	0.00	26.50	15.40	---	---	---	---	---	---	---	---	---	---	
MW-2		03/05/96	10.24	--	0.00	26.50	16.26	< 100	---	3,200	---	< 0.5	< 1.0	< 1.0	< 2.0	---	ND	
MW-2		04/19/96	10.84	--	0.00	26.50	15.66	---	---	---	---	---	---	---	---	---	---	
MW-2		05/10/96	11.13	--	0.00	26.50	15.37	---	---	---	---	---	---	---	---	---	---	
MW-2		06/03/96	10.94	--	0.00	26.50	15.56	---	---	---	---	---	---	---	---	---	---	
MW-2		06/04/96	--	--	--	26.50	--	< 100	---	3,800	---	< 0.5	< 1.0	< 1.0	< 2.0	---	ND	
MW-2		09/04/96	11.24	--	0.00	26.50	15.26	< 100	---	3,100	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---	
MW-2		12/02/96	10.80	--	0.00	26.50	15.70	< 100	---	2,200	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---	
MW-2		02/26/97	10.70	--	0.00	26.50	15.80	< 100	---	2,100	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---	
MW-2		06/09/97	11.10	--	0.00	26.50	15.40	< 100	---	2,400	---	< 0.5	< 1.0	< 1.0	< 2.0	< 10	---	
MW-2		08/25/97	11.05	--	0.00	26.50	15.45	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2.0	< 5	---	
MW-2		11/28/97	10.59	--	0.00	26.50	15.91	< 50	---	1,900	---	0.6	< 0.5	< 0.5	< 2.0	< 5	---	
MW-2		02/12/98	10.04	--	0.00	26.50	16.46	< 50	---	1,600	---	< 0.5	< 0.5	< 0.5	< 2.0	< 5	---	
MW-2		05/20/98	10.84	--	0.00	26.50	15.66	< 50	---	3,100	---	< 0.5	< 0.5	< 0.5	< 2.0	< 5	---	
MW-2		08/11/98	11.56	--	0.00	26.50	14.94	< 50	---	1,200	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---	
MW-2		11/10/98	11.02	--	0.00	26.50	15.48	< 50	---	820	---	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5	---	
MW-2		02/11/99	10.17	--	0.00	26.50	16.33	< 50	---	< 500	---	< 0.50	< 0.50	< 0.50	< 0.50	3.3	---	
MW-2		05/11/99	10.96	--	0.00	26.50	15.54	< 50	---	1,400	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---	
MW-2		08/10/99	11.27	--	0.00	26.50	15.23	---	---	---	---	---	---	---	---	---	---	
MW-2		10/26/99	12.03	--	0.00	26.50	14.47	---	---	---	---	---	---	---	---	---	---	
MW-2		02/25/00	9.95	--	0.00	26.50	16.55	< 50	---	980	---	< 0.5	< 0.5	< 0.5	< 0.5	1.4	---	
MW-2		05/03/00	10.78	--	0.00	26.50	15.72	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	0.6	---	
MW-2		08/02/00	11.02	--	0.00	26.50	15.48	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	1.0	---	
MW-2		11/07/00	10.74	--	0.00	26.50	15.76	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	1.4	---	
MW-2		02/15/01	10.16	--	0.00	26.50	16.34	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	1.0	---	
MW-2		04/27/01	10.60	--	0.00	26.50	15.90	< 50	---	340	---	< 0.5	< 0.5	< 0.5	< 0.5	0.6	---	
MW-2		07/23/01	11.00	--	0.00	26.50	15.50	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	1.2	---	
MW-2		11/01/01	11.00	--	0.00	26.50	15.50	< 50	---	240	---	< 0.5	< 0.5	< 0.5	< 0.5	1.4	---	
MW-2	5	03/28/02	10.42	--	0.00	26.50	16.08	---	---	---	---	---	---	---	---	---	---	
MW-2	5	06/06/02	10.57	--	0.00	26.41	15.84	---	---	---	---	---	---	---	---	---	---	
MW-2	2	09/07/02	11.00	--	0.00	26.41	15.41	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-2	5	12/11/02	10.86	--	0.00	26.41	15.64	---	---	---	---	---	---	---	---	---	---	
MW-2	2	03/12/03	10.43	--	0.00	26.41	15.98	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-2	2	06/05/03	10.70	--	0.00	26.41	15.71	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-2	2	09/26/03	11.00	--	0.00	26.41	15.41	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-2	2	12/05/03	10.29	--	0.00	26.41	16.12	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-2	2	02/12/04	11.20	--	0.00	26.41	15.21	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS										
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>p</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>o</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals	
MW-3		12/30/92	12.43	--	0.00	26.34	13.91	910	---	SPH	20	11	0.9	< 0.3	2	---	ND	
MW-3		02/26/92	12.21	--	0.00	26.34	14.13	---	---	---	---	---	---	---	---	---	---	
MW-3		03/24/93	12.36	--	0.00	26.34	13.98	3,300	---	SPH	28	28	0.7	1	8	---	*15	
MW-3		04/27/93	12.70	--	0.00	26.34	13.64	---	---	---	---	---	---	---	---	---	---	
MW-3		05/28/93	12.72	--	0.00	26.34	13.62	---	---	---	---	---	---	---	---	---	---	
MW-3		06/21/93	12.87	--	0.00	26.34	13.47	**2,600	---	32,000	26	21	5	2	19	---	ed5	
MW-3		07/22/93	12.92	--	0.00	26.34	13.42	---	---	---	---	---	---	---	---	---	---	
MW-3		08/13/93	12.96	--	0.00	26.34	13.38	---	---	---	---	---	---	---	---	---	---	
MW-3		09/16/93	13.05	13.01	0.04	26.34	13.32	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		10/22/93	--	--	--	26.34	--	---	---	---	---	---	---	---	---	---	---	
MW-3		11/03/93	13.24	13.13	0.11	26.34	13.19	---	---	---	---	---	---	---	---	---	---	
MW-3		11/24/94	12.96	12.94	0.02	26.34	13.40	---	---	---	---	---	---	---	---	---	---	
MW-3		12/01/93	12.73	12.71	0.02	26.34	13.63	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		12/27/93	12.81	12.77	0.04	26.34	13.56	---	---	---	---	---	---	---	---	---	---	
MW-3		01/05/94	12.87	12.85	0.02	26.34	13.49	---	---	---	---	---	---	---	---	---	---	
MW-3		02/08/94	12.37	--	0.00	26.34	13.97	---	---	---	---	---	---	---	---	---	---	
MW-3		03/09/94	12.53	--	0.00	26.34	13.81	2,000	---	**5,700	**63	2	1.4	4.5	13	---	ND	
MW-3		04/01/94	12.64	--	0.00	26.34	13.70	---	---	---	---	---	---	---	---	---	---	
MW-3		05/10/94	12.32	--	0.00	26.34	14.02	---	---	---	---	---	---	---	---	---	---	
MW-3		06/30/94	12.86	12.84	0.02	26.34	13.50	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		07/28/94	12.97	12.93	0.04	26.34	13.40	---	---	---	---	---	---	---	---	---	---	
MW-3		08/31/94	13.07	13.04	0.03	26.34	13.29	---	---	---	---	---	---	---	---	---	---	
MW-3		09/27/94	13.24	13.13	0.11	26.34	13.19	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		10/28/94	13.52	13.30	0.22	26.34	13.00	---	---	---	---	---	---	---	---	---	---	
MW-3		11/15/94	11.08	11.05	0.03	26.34	15.28	---	---	---	---	---	---	---	---	---	---	
MW-3		12/01/94	11.92	11.90	0.02	26.34	14.44	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		01/04/95	11.81	11.80	0.01	26.34	14.54	---	---	---	---	---	---	---	---	---	---	
MW-3		02/01/95	12.02	12.00	0.02	26.34	14.34	---	---	---	---	---	---	---	---	---	---	
MW-3		03/08/95	12.40	12.35	0.05	26.34	13.98	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		04/03/95	12.13	12.09	0.04	26.34	14.24	---	---	---	---	---	---	---	---	---	---	
MW-3		05/18/95	12.46	12.43	0.03	26.34	13.90	---	---	---	---	---	---	---	---	---	---	
MW-3		06/09/95	12.62	12.60	0.02	26.34	13.74	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		07/13/95	12.64	12.55	0.09	26.34	13.77	---	---	---	---	---	---	---	---	---	---	
MW-3		08/03/95	12.67	12.64	0.03	26.34	13.69	---	---	---	---	---	---	---	---	---	---	
MW-3		08/29/95	12.68	12.65	0.03	26.34	13.68	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		09/15/95	13.14	13.00	0.14	26.34	13.31	---	---	---	---	---	---	---	---	---	---	
MW-3		10/20/95	12.89	12.86	0.03	26.34	13.47	---	---	---	---	---	---	---	---	---	---	
MW-3		11/15/95	12.88	12.81	0.07	26.34	13.52	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS										
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>2</sub> (µg/L)	TPH <sub>3</sub> (µg/L)	TPH <sub>4</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals	
MW-3		01/15/96	12.73	12.60	0.13	26.34	13.71	---	---	---	---	---	---	---	---	---	---	---
MW-3		03/05/96	11.72	11.68	0.04	26.34	14.65	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		04/19/96	12.38	12.36	0.02	26.34	13.98	---	---	---	---	---	---	---	---	---	---	
MW-3		05/10/96	11.95	11.93	0.02	26.34	14.41	---	---	---	---	---	---	---	---	---	---	
MW-3		06/03/96	13.36	12.93	0.43	26.34	13.32	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		09/04/96	12.65	12.60	0.05	26.34	13.73	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		12/02/96	12.14	12.11	0.03	26.34	14.22	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		02/26/97	12.04	12.03	0.01	26.34	14.31	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	SPH	
MW-3		06/09/97	12.43	12.39	0.04	26.34	13.94	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
MW-3		08/25/97	12.31	12.28	0.03	26.34	14.05	5,600	---	110,000	---	5	6	5	16	< 30	---	
MW-3		11/28/97	12.16	12.13	0.03	26.34	14.20	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
MW-3		02/12/98	11.88	11.85	0.03	26.34	14.48	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
MW-3		05/20/98	12.54	12.51	0.03	26.34	13.82	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
MW-3		08/11/98	13.15	12.97	0.18	26.34	13.33	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	SPH	---	
MW-3		11/10/98	12.57	12.54	0.03	26.34	13.79	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
MW-3		02/11/99	11.77	11.75	0.02	26.34	14.59	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
MW-3		05/11/99	12.52	--	0.00	26.34	13.82	530	---	59,000	---	5.2	< 0.5	< 0.5	< 0.5	< 2.0	---	
MW-3		08/10/99	13.64	13.50	0.14	26.34	12.81	2,200	---	54,000	---	< 0.5	< 0.5	< 0.5	< 0.5	2.2	---	
MW-3		10/26/99	13.04	13.01	0.03	26.34	13.32	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
MW-3		02/25/00	11.41	--	0.00	26.34	14.93	7,800	---	130,000	---	< 5.0	< 5.0	< 5.0	< 5.0	20	---	
MW-3		05/03/00	12.30	--	0.00	26.34	14.04	1,100	---	42,000	---	< 0.5	< 0.5	< 0.5	< 0.5	2.2	---	
MW-3		08/02/00	12.80	12.61	0.19	26.34	13.69	SPH	---	SPH	SPH	SPH	SPH	SPH	SPH	---	---	
MW-3		11/07/00	12.18	--	0.00	26.34	14.16	1,100	---	13,000	---	< 0.5	< 0.5	< 0.5	< 0.5	1.6	---	
MW-3		02/15/01	11.61	--	0.00	26.34	14.73	430	---	73,000	---	< 0.5	< 0.5	< 0.5	< 0.5	0.7	---	
MW-3		04/26/01	12.06	--	sheen	26.34	14.28	4,100	---	110,000	---	< 0.5	< 0.5	< 0.5	< 0.5	1.4	---	
MW-3		07/23/01	12.60	--	0.00	26.34	13.74	1,200	---	64,000	---	< 0.5	< 0.5	< 0.5	< 0.5	1.7	---	
MW-3		11/01/01	12.66	--	0.00	26.34	13.68	1,200	---	19,000	---	< 0.5	< 0.5	< 0.5	< 0.5	1.4	---	
MW-3	2	03/28/02	11.96	--	0.00	26.34	14.38	800	640	950	---	< 0.5	< 0.5	< 0.5	< 1.0	< 5.0	---	
MW-3	2	06/06/02	11.91	--	0.00	26.23	14.32	870	1,026	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-3	2	09/07/02	12.81	--	0.00	26.23	13.42	347	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-3	2	12/11/02	12.43	--	0.00	26.23	13.91	876	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-3	2	03/12/03	12.11	--	0.00	26.23	14.12	801	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.9	---	
MW-3	2	06/05/03	12.12	--	0.00	26.23	14.11	640	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.9	---	
MW-3	2	09/26/03	12.52	--	0.00	26.23	13.71	522	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-3	2	12/05/03	11.67	--	0.00	26.23	14.56	575	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-3	2	02/12/04	11.78	--	0.00	26.23	14.45	687	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-4		12/30/92	11.53	--	sheen	26.17	14.64	1,200	---	---	< 1	2	< 0.3	1	< 0.5	---	*ND	
MW-4		02/26/93	11.35	--	0.00	26.17	14.82	---	---	---	---	---	---	---	---	---	---	

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS										
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>g</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>n</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals	
MW-4		03/24/93	11.46	--	0.00	26.17	14.71	750	---	---	---	2	< 0.3	< 0.3	< 0.3	< 0.5	---	*7
MW-4		04/27/93	11.74	--	0.00	26.17	14.43	---	---	---	---	---	---	---	---	---	---	---
MW-4		05/28/93	11.77	--	0.00	26.17	14.40	---	---	---	---	---	---	---	---	---	---	---
MW-4		06/21/93	11.92	--	0.00	26.17	14.25	660	---	19,000	---	< 0.3	2	< 0.3	0.5	---	*ND	
MW-4		07/22/93	11.95	--	0.00	26.17	14.22	---	---	---	---	---	---	---	---	---	---	---
MW-4		08/13/93	12.01	--	0.00	26.17	14.16	---	---	---	---	---	---	---	---	---	---	---
MW-4		09/16/93	12.08	--	0.00	26.17	14.09	410	---	2,500	---	0.3	< 0.3	2	3	---	*ND	
MW-4		10/22/93	12.03	--	0.00	26.17	14.14	---	---	---	---	---	---	---	---	---	---	---
MW-4		11/03/93	12.10	--	0.00	26.17	14.07	---	---	---	---	---	---	---	---	---	---	---
MW-4		11/24/93	12.02	--	0.00	26.17	14.15	---	---	---	---	---	---	---	---	---	---	---
MW-4		12/01/93	11.78	--	0.00	26.17	14.39	150	---	390	---	< 0.3	< 0.3	< 0.3	< 0.5	---	*ND	
MW-4		12/27/93	11.80	--	0.00	26.17	14.37	---	---	---	---	---	---	---	---	---	---	---
MW-4		01/05/94	11.91	--	0.00	26.17	14.26	---	---	---	---	---	---	---	---	---	---	---
MW-4		02/08/94	11.85	--	0.00	26.17	14.32	---	---	---	---	---	---	---	---	---	---	---
MW-4		03/09/94	11.61	--	0.00	26.17	14.56	1,500	---	780	---	0.7	0.8	2	3.6	---	*ND	
MW-4		04/01/94	11.73	--	0.00	26.17	14.44	---	---	---	---	---	---	---	---	---	---	---
MW-4		05/10/94	11.49	--	0.00	26.17	14.68	---	---	---	---	---	---	---	---	---	---	---
MW-4		06/30/94	11.90	--	0.00	26.17	14.27	450	---	130	---	< 0.3	1.7	0.5	1	---	ND	
MW-4		07/28/94	11.97	--	0.00	26.17	14.20	---	---	---	---	---	---	---	---	---	---	---
MW-4		08/31/94	12.06	--	0.00	26.17	14.11	---	---	---	---	---	---	---	---	---	---	---
MW-4		09/27/94	12.11	--	0.00	26.17	14.06	110	---	1,100	---	0.5	< 0.3	< 0.3	< 0.5	---	ND	
MW-4		10/28/94	12.18	--	0.00	26.17	13.99	---	---	---	---	---	---	---	---	---	---	---
MW-4		11/15/94	10.72	--	0.00	26.17	15.45	---	---	---	---	---	---	---	---	---	---	---
MW-4		12/01/94	11.37	--	0.00	26.17	14.80	290	---	580	---	0.6	0.5	0.3	0.8	---	< *5	
MW-4		01/04/95	11.20	--	0.00	26.17	14.97	---	---	---	---	---	---	---	---	---	---	---
MW-4		02/01/95	11.16	--	0.00	26.17	15.01	---	---	---	---	---	---	---	---	---	---	---
MW-4		03/08/95	11.49	--	0.00	26.17	14.68	360	---	1,000	---	< 0.3	< 0.3	< 0.3	< 0.5	---	< *5	
MW-4		04/03/95	11.35	--	0.00	26.17	14.82	---	---	---	---	---	---	---	---	---	---	---
MW-4		05/08/95	11.56	--	0.00	26.17	14.61	---	---	---	---	---	---	---	---	---	---	---
MW-4		06/09/95	11.72	--	0.00	26.17	14.45	64	---	1,100	---	< 0.3	0.4	< 0.3	< 0.5	---	< *5	
MW-4		07/13/95	11.72	--	0.00	26.17	14.45	---	---	---	---	---	---	---	---	---	---	---
MW-4		08/31/95	11.81	--	0.00	26.17	14.36	---	---	---	---	---	---	---	---	---	---	---
MW-4		08/29/95	11.88	--	0.00	26.17	14.29	< 0.5	---	1,200	---	< 0.3	< 0.3	< 0.3	< 0.5	---	< *5	
MW-4		09/15/95	11.99	--	0.00	26.17	14.18	---	---	---	---	---	---	---	---	---	---	---
MW-4		10/20/95	12.00	--	0.00	26.17	14.17	---	---	---	---	---	---	---	---	---	---	---
MW-4		11/15/95	11.96	--	0.00	26.17	14.21	< 0.5	---	2,100	---	< 0.5	< 0.5	< 0.5	< 0.5	---	*ND	
MW-4		01/15/96	11.71	--	0.00	26.17	14.46	---	---	---	---	---	---	---	---	---	---	---
MW-4		03/05/96	11.02	--	0.00	26.17	15.15	< 100	---	590	---	< 0.5	< 1.0	< 1.0	< 2.0	---	*ND	

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS										
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>g</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>n</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals	
MW-4		04/19/96	11.51	--	0.00	26.17	14.66	---	---	---	---	---	---	---	---	---	---	
MW-4		05/10/96	11.74	--	0.00	26.17	14.43	---	---	---	---	---	---	---	---	---	---	
MW-4		06/03/96	11.60	--	0.00	26.17	14.57	---	---	---	---	---	---	---	---	---	---	
MW-4		06/04/96	---	--	---	26.17	---	< 100	---	860	---	< 0.5	< 1.0	< 1.0	< 2.0	---	ND	
MW-4		09/04/96	11.85	--	0.00	26.17	14.32	< 100	---	600	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---	
MW-4		12/02/96	11.45	--	0.00	26.17	14.72	< 100	---	940	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---	
MW-4		02/26/97	11.42	--	0.00	26.17	14.75	< 100	---	390	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---	
MW-4		06/09/97	11.70	--	0.00	26.17	14.47	< 100	---	630	---	< 0.5	< 1.0	< 1.0	< 2.0	< 10	---	
MW-4		08/25/97	11.63	--	0.00	26.17	14.54	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2.0	< 5	---	
MW-4		11/28/97	11.27	--	0.00	26.17	14.90	120	---	< 200	---	3.6	3.9	3.7	12	< 5	---	
MW-4		02/12/98	11.00	--	0.00	26.17	15.17	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2.0	< 5	---	
MW-4		05/20/98	11.62	--	0.00	26.17	14.55	< 50	---	300	---	< 0.5	< 0.5	< 0.5	< 2.0	< 5	---	
MW-4		08/11/98	11.90	--	0.00	26.17	14.27	< 50	---	< 500	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---	
MW-4		11/10/98	11.65	--	0.00	26.17	14.52	62	---	610	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---	
MW-4		02/11/99	10.87	--	0.00	26.17	15.30	140	---	< 500	---	< 0.50	2.4	1.3	6.5	8.0	---	
MW-4		05/11/99	11.66	--	0.00	26.17	14.51	< 50	---	330	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0	---	
MW-4		08/10/99	11.95	--	0.00	26.17	14.22	470	---	< 250	---	< 0.5	< 0.5	< 0.5	2.6	2.5	---	
MW-4		10/26/99	11.40	--	0.00	26.17	14.77	< 50	---	1,300	---	< 0.5	< 0.5	< 0.5	< 0.5	3.5/2.2 <sup>1</sup>	---	
MW-4		02/25/00	10.75	--	0.00	26.17	15.42	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	2.4	---	
MW-4		05/03/00	11.55	--	0.00	26.17	14.62	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	2.5	---	
MW-4		08/02/00	11.70	--	0.00	26.17	14.47	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	2.9	---	
MW-4		11/07/00	11.45	--	0.00	26.17	14.72	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	2.9	---	
MW-4		02/15/01	10.98	--	0.00	26.17	15.19	< 50	---	< 100	---	< 0.5/0.5 <sup>1</sup>	< 0.5/0.5 <sup>1</sup>	< 0.5/0.5 <sup>1</sup>	< 0.5/0.5 <sup>1</sup>	2.4	---	
MW-4		04/26/01	11.35	--	0.00	26.17	14.82	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	2.8	---	
MW-4		07/23/01	11.79	--	0.00	26.17	14.38	< 50	---	< 100	---	< 0.5/0.5 <sup>1</sup>	< 0.5/0.5 <sup>1</sup>	< 0.5/0.5 <sup>1</sup>	< 0.5/0.5 <sup>1</sup>	2.5	---	
MW-4		11/01/01	11.77	--	0.00	26.17	14.40	< 50	---	< 100	---	< 0.5/0.5 <sup>1</sup>	< 0.5/0.5 <sup>1</sup>	< 0.5/0.5 <sup>1</sup>	< 0.5/0.5 <sup>1</sup>	3.3	---	
MW-4	2	03/28/02	11.17	--	0.00	26.17	15.00	< 50	< 50	< 500	---	< 0.5	< 0.5	< 0.5	< 1	< 5	---	
MW-4	2	06/06/02	11.29	--	0.00	26.07	14.78	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-4	2	09/07/02	11.80	--	0.00	26.07	14.27	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.2	---	
MW-4	2	12/11/02	11.60	--	0.00	26.07	14.57	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.2	---	
MW-4	2	03/12/03	11.39	--	0.00	26.07	14.68	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.8	---	
MW-4	2	06/05/03	11.45	--	0.00	26.07	14.62	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	3.0	---	
MW-4	2	09/26/03	11.75	--	0.00	26.07	14.32	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2	---	
MW-4	2	12/05/03	11.05	--	0.00	26.07	15.02	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-4	2	02/12/04	11.21	--	0.00	26.07	14.86	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.4	---	
MW-5		12/30/92	10.50	--	0.00	26.98	16.48	37	---	---	< 1	< 0.3	< 0.3	< 0.3	< 0.5	---	5	
MW-5		02/26/93	10.12	--	0.00	26.98	16.86	---	---	---	---	---	---	---	---	---	---	
MW-5		03/24/93	10.31	--	0.00	26.98	16.67	19	---	---	2	< 0.3	< 0.3	< 0.3	0.5	---	*341	



Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS									
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>t</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>n</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals
MW-5		04/27/93	10.75	--	0.00	26.98	16.23	---	---	---	---	---	---	---	---	---	---
MW-5		05/28/93	10.80	--	0.00	26.98	16.18	---	---	---	---	---	---	---	---	---	---
MW-5		06/21/93	10.94	--	0.00	26.98	16.04	< 10	---	< 100	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-5		07/22/93	11.01	--	0.00	26.98	15.97	---	---	---	---	---	---	---	---	---	---
MW-5		08/13/93	11.07	--	0.00	26.98	15.91	---	---	---	---	---	---	---	---	---	---
MW-5		09/16/93	11.18	--	0.00	26.98	15.80	< 10	---	< 100	---	0.3	< 0.3	< 0.3	1	---	ND
MW-5		10/22/93	11.19	--	0.00	26.98	15.79	---	---	---	---	---	---	---	---	---	---
MW-5		11/03/93	11.23	--	0.00	26.98	15.75	---	---	---	---	---	---	---	---	---	---
MW-5		11/24/93	12.00	--	0.00	26.98	14.98	---	---	---	---	---	---	---	---	---	---
MW-5		12/01/93	10.84	--	0.00	26.98	16.14	17	---	---	---	< 0.3	< 0.3	< 0.3	1	---	ND
MW-5		12/27/93	10.81	--	0.00	26.98	16.17	---	---	---	---	---	---	---	---	---	---
MW-5		12/30/93	--	--	--	--	--	---	---	< 100	---	---	---	---	---	---	---
MW-5		01/05/94	10.96	--	0.00	26.98	16.02	---	---	---	---	---	---	---	---	---	---
MW-5		02/08/94	10.94	--	0.00	26.98	16.04	---	---	---	---	---	---	---	---	---	---
MW-5		03/09/94	10.54	--	0.00	26.98	16.44	22	---	< 100	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-5		04/01/94	10.77	--	0.00	26.98	16.21	---	---	---	---	---	---	---	---	---	---
MW-5		05/10/94	10.44	--	0.00	26.98	16.54	---	---	---	---	---	---	---	---	---	---
MW-5		06/30/94	10.88	--	0.00	26.98	16.10	< 10	---	< 100	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-5		07/28/94	10.98	--	0.00	26.98	16.00	---	---	---	---	---	---	---	---	---	---
MW-5		08/31/94	11.07	--	0.00	26.98	15.91	---	---	---	---	---	---	---	---	---	---
MW-5		09/27/94	11.12	--	0.00	26.98	15.86	< 10	---	560	---	0.5	0.4	< 0.3	< 0.5	---	ND
MW-5		10/28/94	11.21	--	0.00	26.98	15.77	---	---	---	---	---	---	---	---	---	---
MW-5		11/15/94	10.05	--	0.00	26.98	16.93	---	---	---	---	---	---	---	---	---	---
MW-5		12/01/94	10.39	--	0.00	26.98	16.59	< 10	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-5		01/04/95	10.18	--	0.00	26.98	16.80	---	---	---	---	---	---	---	---	---	---
MW-5		02/01/95	9.93	--	0.00	26.98	17.05	---	---	---	---	---	---	---	---	---	---
MW-5		03/08/95	10.35	--	0.00	26.98	16.63	< 10	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-5		04/03/95	10.15	--	0.00	26.98	16.83	---	---	---	---	---	---	---	---	---	---
MW-5		05/18/95	10.43	--	0.00	26.98	16.55	---	---	---	---	---	---	---	---	---	---
MW-5		06/09/95	10.62	--	0.00	26.98	16.36	< 50	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	<sup>a</sup> 7
MW-5		07/13/95	10.76	--	0.00	26.98	16.22	---	---	---	---	---	---	---	---	---	---
MW-5		08/03/95	10.82	--	0.00	26.98	16.16	---	---	---	---	---	---	---	---	---	---
MW-5		08/29/95	10.91	--	0.00	26.98	16.07	< 50	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	<sup>b</sup> 36
MW-5		09/15/95	11.00	--	0.00	26.98	15.98	---	---	---	---	---	---	---	---	---	---
MW-5		10/20/95	11.02	--	0.00	26.98	15.96	---	---	---	---	---	---	---	---	---	---
MW-5		11/15/95	11.95	--	0.00	26.98	15.03	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 0.5	---	ND
MW-5		01/15/96	10.57	--	0.00	26.98	16.41	---	---	---	---	---	---	---	---	---	---
MW-5		03/05/96	9.81	--	0.00	26.98	17.17	< 100	---	< 200	---	< 0.5	< 1.0	< 1.0	< 2.0	---	ND

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS									
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>1</sub> (µg/L)	TPH <sub>4</sub> (µg/L)	TPH <sub>6</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals
MW-5		04/19/96	10.32	--	0.00	26.98	16.66	---	---	---	---	---	---	---	---	---	---
MW-5		05/10/96	10.56	--	0.00	26.98	16.42	---	---	---	---	---	---	---	---	---	---
MW-5		06/03/96	10.46	--	0.00	26.98	16.52	---	---	---	---	---	---	---	---	---	---
MW-5		09/04/96	10.86	--	0.00	26.98	16.12	< 100	---	310	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---
MW-5		12/02/96	10.45	--	0.00	26.98	16.53	---	---	---	---	---	---	---	---	---	---
MW-5		02/26/97	10.38	--	0.00	26.98	16.60	< 100	---	< 200	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---
MW-5		06/09/97	10.78	--	0.00	26.98	16.20	---	---	---	---	---	---	---	---	---	---
MW-5		08/25/97	10.69	--	0.00	26.98	16.29	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2.0	< 5	---
MW-5		11/28/97	10.15	--	0.00	26.98	16.83	---	---	---	---	---	---	---	---	---	---
MW-5		02/12/98	9.55	--	0.00	26.98	17.43	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 0.5	< 5	---
MW-5		05/20/98	10.29	--	0.00	26.98	16.69	---	---	---	---	---	---	---	---	---	---
MW-5		08/11/98	10.67	--	0.00	26.98	16.31	< 50	---	< 500	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---
MW-5		11/10/98	10.59	--	0.00	26.98	16.39	---	---	---	---	---	---	---	---	---	---
MW-5		02/11/99	9.75	--	0.00	26.98	17.23	< 50	---	< 500	---	< 0.5	< 0.5	< 0.5	< 0.5	3.2	---
MW-5		05/11/99	10.38	--	0.00	26.98	16.60	---	---	---	---	---	---	---	---	---	---
MW-5		08/10/99	10.77	--	0.00	26.98	16.21	< 50	---	< 250	---	< 0.5	< 0.5	< 0.5	< 0.5	5.6	---
MW-5		10/26/99	10.95	--	0.00	26.98	16.03	---	---	---	---	---	---	---	---	---	---
MW-5		02/25/00	9.50	--	0.00	26.98	17.48	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	3.5	---
MW-5		05/03/00	10.40	--	0.00	26.98	16.58	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	2.9	---
MW-5		08/02/00	10.70	--	0.00	26.98	16.28	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	5.2	---
MW-5		11/07/00	10.38	--	0.00	26.98	16.60	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	4.2	---
MW-5		02/15/01	9.77	--	0.00	26.98	17.21	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	3.1	---
MW-5		04/26/01	10.17	--	0.00	26.98	16.81	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	2.4	---
MW-5		07/23/01	10.64	--	0.00	26.98	16.34	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	3.5	---
MW-5		11/01/01	10.58	--	0.00	26.98	16.40	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	3.8	---
MW-5	2	03/28/02	10.02	--	0.00	26.98	16.96	< 50	< 50	< 500	---	< 0.5	< 0.5	< 0.5	< 1	< 5	---
MW-5	2	06/06/02	10.20	--	0.00	26.91	16.71	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-5	2	09/07/02	10.62	--	0.00	26.91	16.29	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.0	---
MW-5	2	12/11/02	10.40	--	0.00	26.91	16.58	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.0	---
MW-5	2	03/12/03	10.37	--	0.00	26.91	16.54	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.6	---
MW-5	2	06/05/03	10.40	--	0.00	26.91	16.51	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.0	---
MW-5	2	09/26/03	10.68	--	0.00	26.91	16.23	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-5	2	12/05/03	9.92	--	0.00	26.91	16.99	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-5	2	02/12/04	10.10	--	0.00	26.91	16.81	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-6		12/27/93	11.24	--	0.00	24.32	13.08	< 10	---	< 100	< 1	< 0.3	< 0.3	< 0.3	< 0.5	---	70
MW-6		01/05/94	11.39	--	0.00	24.32	12.93	---	---	---	---	---	---	---	---	---	---
MW-6		02/08/94	11.15	--	0.00	24.32	13.17	---	---	---	---	---	---	---	---	---	---
MW-6		03/09/94	10.97	--	0.00	24.32	13.35	15	---	< 100	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS										
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>e</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>o</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals	
MW-6		04/01/94	11.25	--	0.00	24.32	13.07	---	---	---	---	---	---	---	---	---	---	
MW-6		05/10/94	10.78	--	0.00	24.32	13.54	---	---	---	---	---	---	---	---	---	---	
MW-6		06/30/94	11.49	--	0.00	24.32	12.83	< 10	---	< 100	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND	
MW-6		07/28/94	11.59	--	0.00	24.32	12.73	---	---	---	---	---	---	---	---	---	---	
MW-6		08/31/94	11.56	--	0.00	24.32	12.76	---	---	---	---	---	---	---	---	---	---	
MW-6		09/27/94	11.65	--	0.00	24.32	12.67	< 10	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	<sup>d</sup> g	
MW-6		10/28/94	11.59	--	0.00	24.32	12.73	---	---	---	---	---	---	---	---	---	---	
MW-6		11/15/94	10.24	--	0.00	24.32	14.08	---	---	---	---	---	---	---	---	---	---	
MW-6		12/01/94	10.30	--	0.00	24.32	14.02	< 10	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	<sup>32</sup>	
MW-6		01/04/95	9.81	--	0.00	24.32	14.51	---	---	---	---	---	---	---	---	---	---	
MW-6		02/01/95	10.01	--	0.00	24.32	14.31	---	---	---	---	---	---	---	---	---	---	
MW-6		03/08/95	10.64	--	0.00	24.32	13.68	< 10	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND	
MW-6		04/03/95	10.26	--	0.00	24.32	14.06	---	---	---	---	---	---	---	---	---	---	
MW-6		05/18/95	10.81	--	0.00	24.32	13.51	---	---	---	---	---	---	---	---	---	---	
MW-6		06/09/95	11.07	--	0.00	24.32	13.25	< 10	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND	
MW-6		07/13/95	10.91	--	0.00	24.32	13.41	---	---	---	---	---	---	---	---	---	---	
MW-6		08/03/95	11.15	--	0.00	24.32	13.17	---	---	---	---	---	---	---	---	---	---	
MW-6		08/29/95	11.09	--	0.00	24.32	13.23	> 50	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	<sup>b</sup> 24	
MW-6		09/15/95	11.35	--	0.00	24.32	12.97	---	---	---	---	---	---	---	---	---	---	
MW-6		10/20/95	11.32	--	0.00	24.32	13.00	---	---	---	---	---	---	---	---	---	---	
MW-6		11/15/95	11.20	--	0.00	24.32	13.12	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 0.5	---	<sup>31</sup>	
MW-6		01/15/96	10.83	--	0.00	24.32	13.49	---	---	---	---	---	---	---	---	---	---	
MW-6		03/05/96	9.60	--	0.00	24.32	14.72	< 100	---	< 200	---	< 0.5	< 1.0	< 1.0	< 2.0	---	ND	
MW-6		04/19/96	10.71	--	0.00	24.32	13.61	---	---	---	---	---	---	---	---	---	---	
MW-6		05/10/96	11.05	--	0.00	24.32	13.27	---	---	---	---	---	---	---	---	---	---	
MW-6		06/03/96	10.91	--	0.00	24.32	13.41	---	---	---	---	---	---	---	---	---	---	
MW-6		09/04/96	10.84	--	0.00	24.32	13.48	< 100	---	230	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---	
MW-6		12/02/96	10.46	--	0.00	24.32	13.86	---	---	---	---	---	---	---	---	---	---	
MW-6		02/26/97	10.46	--	0.00	24.32	13.86	< 100	---	< 200	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---	
MW-6		06/09/97	10.90	--	0.00	24.32	13.42	---	---	---	---	---	---	---	---	---	---	
MW-6		08/25/97	10.84	--	0.00	24.32	13.48	< 50	---	< 200	---	< 0.5	1.1	< 0.5	< 2.0	< 5	---	
MW-6		11/28/97	10.07	--	0.00	24.32	14.25	---	---	---	---	---	---	---	---	---	---	
MW-6		02/12/98	9.39	--	0.00	24.32	14.93	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2.0	< 5	---	
MW-6		05/20/98	10.85	--	0.00	24.32	13.47	---	---	---	---	---	---	---	---	---	---	
MW-6		08/11/98	11.21	--	0.00	24.32	13.11	< 50	---	< 500	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---	
MW-6		11/10/98	10.82	--	0.00	24.32	13.50	---	---	---	---	---	---	---	---	---	---	
MW-6		02/11/99	9.39	--	0.00	24.32	14.93	< 50	---	< 500	---	< 0.5	< 0.5	< 0.5	< 0.5	7.1	---	
MW-6		05/11/99	10.84	--	0.00	24.32	13.48	---	---	---	---	---	---	---	---	---	---	

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS									
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>g</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>h</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals
MW-6		08/10/99	11.28	--	0.00	24.32	13.04	< 50	---	< 250	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2	---
MW-6		10/26/99	11.43	--	0.00	24.32	12.89	---	---	---	---	---	---	---	---	---	---
MW-6		02/25/00	9.27	--	0.00	24.32	15.05	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-6		05/03/00	10.78	--	0.00	24.32	13.54	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-6		08/02/00	10.92	--	0.00	24.32	13.40	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-6		11/07/00	10.55	--	0.00	24.32	13.77	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-6		02/15/01	9.66	--	0.00	24.32	14.66	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-6		04/26/01	10.40	--	0.00	24.32	13.92	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-6		07/23/01	11.00	--	0.00	24.32	13.32	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-6		11/01/01	10.97	--	0.00	24.32	13.35	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-6	5	03/28/02	10.13	--	0.00	24.32	14.19	---	---	---	---	---	---	---	---	---	---
MW-6	5	06/06/02	10.55	--	0.00	24.29	13.74	---	---	---	---	---	---	---	---	---	---
MW-6	2	09/07/02	11.10	--	0.00	24.29	13.19	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-6	5	12/11/02	10.95	--	0.00	24.29	13.37	---	---	---	---	---	---	---	---	---	---
MW-6	2	03/12/03	10.75	--	0.00	24.29	13.54	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-6	2	06/05/03	10.86	--	0.00	24.29	13.43	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-6	2	09/26/03	11.13	--	0.00	24.29	13.16	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-6	2	12/05/03	10.15	--	0.00	24.29	14.14	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-6	2	02/12/04	10.41	--	0.00	24.29	13.88	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-7		12/27/93	11.80	--	0.00	24.88	13.08	140	---	100	< 1	< 0.3	< 0.3	1	2	---	40
MW-7		01/05/94	11.53	--	0.00	24.88	13.35	---	---	---	---	---	---	---	---	---	---
MW-7		02/08/94	11.90	--	0.00	24.88	12.98	---	---	---	---	---	---	---	---	---	---
MW-7		03/09/94	11.23	--	0.00	24.88	13.65	620	---	< 100	---	< 0.3	< 1.0	1.5	4.1	---	ND
MW-7		04/01/94	11.34	--	0.00	24.88	13.54	---	---	---	---	---	---	---	---	---	---
MW-7		05/10/94	11.02	--	0.00	24.88	13.86	---	---	---	---	---	---	---	---	---	---
MW-7		06/30/94	11.49	--	0.00	24.88	13.39	33	---	< 100	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-7		07/28/94	11.58	--	0.00	24.88	13.30	---	---	---	---	---	---	---	---	---	---
MW-7		08/31/94	11.69	--	0.00	24.88	13.19	---	---	---	---	---	---	---	---	---	---
MW-7		09/27/94	11.73	--	0.00	24.88	13.15	52	---	< 250	---	< 0.3	< 0.3	0.4	0.7	---	ND
MW-7		10/28/94	11.77	--	0.00	24.88	13.11	---	---	---	---	---	---	---	---	---	---
MW-7		11/15/94	10.29	--	0.00	24.88	14.59	---	---	---	---	---	---	---	---	---	---
MW-7		12/01/94	10.89	--	0.00	24.88	13.99	< 10	---	< 250	---	< 0.3	< 0.3	< 0.3	1.1	---	28
MW-7		01/04/95	10.77	--	0.00	24.88	14.11	---	---	---	---	---	---	---	---	---	---
MW-7		02/01/95	10.70	--	0.00	24.88	14.18	---	---	---	---	---	---	---	---	---	---
MW-7		03/08/95	11.05	--	0.00	24.88	13.83	< 10	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND
MW-7		04/03/95	10.88	--	0.00	24.88	14.00	---	---	---	---	---	---	---	---	---	---
MW-7		05/18/95	11.12	--	0.00	24.88	13.76	---	---	---	---	---	---	---	---	---	---
MW-7		06/09/95	11.25	--	0.00	24.88	13.63	< 50	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS									
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>c</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>o</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals
MW-7		07/13/95	11.15	--	0.00	24.88	13.73	---	---	---	---	---	---	---	---	---	---
MW-7		08/03/95	11.32	--	0.00	24.88	13.56	---	---	---	---	---	---	---	---	---	---
MW-7		08/29/95	11.53	--	0.00	24.88	13.35	< 50	---	< 250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	13
MW-7		09/15/95	11.65	--	0.00	24.88	13.23	---	---	---	---	---	---	---	---	---	---
MW-7		10/20/95	11.64	--	0.00	24.88	13.24	---	---	---	---	---	---	---	---	---	---
MW-7		11/15/95	11.60	--	0.00	24.88	13.28	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 0.5	---	ND
MW-7		01/15/96	11.07	--	0.00	24.88	13.81	---	---	---	---	---	---	---	---	---	---
MW-7		03/05/96	10.50	--	0.00	24.88	14.38	< 100	---	270	---	< 0.5	< 1.0	< 1.0	< 2.0	---	ND
MW-7		04/19/96	12.02	--	0.00	24.88	12.86	---	---	---	---	---	---	---	---	---	---
MW-7		05/10/96	11.14	--	0.00	24.88	13.74	---	---	---	---	---	---	---	---	---	---
MW-7		06/03/96	11.10	--	0.00	24.88	13.78	---	---	---	---	---	---	---	---	---	---
MW-7		09/04/96	11.45	--	0.00	24.88	13.43	< 100	---	< 200	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---
MW-7		12/02/96	10.96	--	0.00	24.88	13.92	---	---	---	---	---	---	---	---	---	---
MW-7		02/26/97	11.02	--	0.00	24.88	13.86	< 100	---	< 200	---	< 0.5	< 1.0	< 1.0	< 2.0	---	---
MW-7		06/09/97	11.34	--	0.00	24.88	13.54	---	---	---	---	---	---	---	---	---	---
MW-7		08/25/97	11.25	--	0.00	24.88	13.63	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2.0	< 0.5	---
MW-7		11/28/97	10.69	--	0.00	24.88	14.19	---	---	---	---	---	---	---	---	---	---
MW-7		02/12/98	10.11	--	0.00	24.88	14.77	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2.0	< 5	---
MW-7		05/20/98	11.20	--	0.00	24.88	13.68	---	---	---	---	---	---	---	---	---	---
MW-7		08/11/98	11.55	--	0.00	24.88	13.33	< 50	---	< 500	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---
MW-7		11/10/98	11.21	--	0.00	24.88	13.67	---	---	---	---	---	---	---	---	---	---
MW-7		02/11/99	10.27	--	0.00	24.88	14.61	130	---	< 500	---	< 0.5	< 0.5	< 0.5	< 0.5	5.8	---
MW-7		05/11/99	11.25	--	0.00	24.88	13.63	---	---	---	---	---	---	---	---	---	---
MW-7		08/10/99	11.65	--	0.00	24.88	13.23	< 50	---	< 250	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0	---
MW-7		10/26/99	11.76	--	0.00	24.88	13.12	---	---	---	---	---	---	---	---	---	---
MW-7		02/25/00	10.40	--	0.00	24.88	14.48	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-7		05/03/00	11.16	--	0.00	24.88	13.72	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-7		08/02/00	11.25	--	0.00	24.88	13.63	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-7		11/07/00	11.03	--	0.00	24.88	13.85	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-7		02/15/01	10.56	--	0.00	24.88	14.32	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-7		04/26/01	10.95	--	0.00	24.88	13.93	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-7		07/23/01	11.50	--	0.00	24.88	13.38	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-7		11/01/01	11.55	--	0.00	24.88	13.33	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-7	5	03/28/02	10.77	--	0.00	24.88	14.11	---	---	---	---	---	---	---	---	---	---
MW-7	5	06/06/02	10.97	--	0.00	24.84	13.87	---	---	---	---	---	---	---	---	---	---
MW-7	2	09/07/02	11.65	--	0.00	24.84	13.19	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-7	5	12/11/02	11.30	--	0.00	24.84	13.58	---	---	---	---	---	---	---	---	---	---
MW-7	2	03/12/03	11.12	--	0.00	24.84	13.72	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS										
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>g</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>o</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals	
MW-7	2	06/05/03	11.14	--	0.00	24.84	13.70	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-7	2	09/26/03	11.60	--	0.00	24.84	13.24	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-7	2	12/05/03	10.02	--	0.00	24.84	14.82	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-7	2,3	12/05/03	10.02	--	0.00	24.84	14.82	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-7	2	02/12/04	10.85	--	0.00	24.84	13.99	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---	
MW-8		12/27/93	12.45	--	0.00	26.12	13.67	390	---	< 100	< 1	0.4	4	0.4	1	---	*18	
MW-8		01/05/94	12.57	--	0.00	26.12	13.55	---	---	---	---	---	---	---	---	---	---	
MW-8		02/08/94	12.02	--	0.00	26.12	14.10	---	---	---	---	---	---	---	---	---	---	
MW-8		03/09/94	12.22	--	0.00	26.12	13.90	420	---	< 100	---	0.6	0.8	0.5	1.5	---	*ND	
MW-8		04/01/94	12.33	--	0.00	26.12	13.79	---	---	---	---	---	---	---	---	---	---	
MW-8		05/10/94	12.00	--	0.00	26.12	14.12	---	---	---	---	---	---	---	---	---	---	
MW-8		06/30/94	12.52	--	0.00	26.12	13.60	250	---	< 100	---	< 0.9	< 0.3	< 0.3	1.1	---	ND	
MW-8		07/28/94	12.61	--	0.00	26.12	13.51	---	---	---	---	---	---	---	---	---	---	
MW-8		08/31/94	12.72	--	0.00	26.12	13.40	---	---	---	---	---	---	---	---	---	---	
MW-8		09/27/94	12.80	--	0.00	26.12	13.32	210	---	< *250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	*9	
MW-8		10/28/94	12.84	--	0.00	26.12	13.28	---	---	---	---	---	---	---	---	---	---	
MW-8		11/15/94	11.72	--	0.00	26.12	14.40	---	---	---	---	---	---	---	---	---	---	
MW-8		12/01/94	11.87	--	0.00	26.12	14.25	230	---	< *250	---	5.4	< 0.3	0.7	1.3	---	*ND	
MW-8		01/04/95	11.75	--	0.00	26.12	14.37	---	---	---	---	---	---	---	---	---	---	
MW-8		02/01/95	11.64	--	0.00	26.12	14.48	---	---	---	---	---	---	---	---	---	---	
MW-8		03/08/95	12.04	--	0.00	26.12	14.08	230	---	< *250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND	
MW-8		04/03/95	11.86	--	0.00	26.12	14.26	---	---	---	---	---	---	---	---	---	---	
MW-8		05/18/95	12.11	--	0.00	26.12	14.01	---	---	---	---	---	---	---	---	---	---	
MW-8		06/09/95	12.34	--	0.00	26.12	13.78	< 50	---	< *250	---	< 0.3	< 0.3	< 0.3	< 0.5	---	ND	
MW-8		07/13/95	12.37	--	0.00	26.12	13.75	---	---	---	---	---	---	---	---	---	---	
MW-8		08/03/95	12.50	--	0.00	26.12	13.62	---	---	---	---	---	---	---	---	---	---	
MW-8		08/29/95	12.55	--	0.00	26.12	13.57	200	---	< *250	---	0.9	0.4	< 0.3	0.8	---	*15	
MW-8		09/15/95	12.70	--	0.00	26.12	13.42	---	---	---	---	---	---	---	---	---	---	
MW-8		10/20/95	12.69	--	0.00	26.12	13.43	---	---	---	---	---	---	---	---	---	---	
MW-8		11/15/95	12.67	--	0.00	26.12	13.45	120	---	---	---	0.58	< 0.5	< 0.5	0.54	---	*21	
MW-8		12/11/95	11.80	--	0.00	26.12	14.32	---	---	---	---	---	---	---	---	---	---	
MW-8		01/15/96	12.38	--	0.00	26.12	13.74	---	---	---	---	---	---	---	---	---	---	
MW-8		03/05/96	11.44	--	0.00	26.12	14.68	< 100	---	< *200	---	0.6	< 1.0	< 1.0	< 2.0	---	ND	
MW-8		04/19/96	10.80	--	0.00	26.12	15.32	---	---	---	---	---	---	---	---	---	---	
MW-8		05/10/96	12.40	--	0.00	26.12	13.72	---	---	---	---	---	---	---	---	---	---	
MW-8		06/03/96	12.26	--	0.00	26.12	13.86	100	---	---	---	< 0.5	< 1	< 1	< 2	---	---	
MW-8		09/04/96	12.51	--	0.00	26.12	13.61	110	---	< 200	---	< 0.5	< 1	< 1	< 2	---	---	
MW-8		12/02/96	11.99	--	0.00	26.12	14.13	110	---	< 200	---	< 0.5	< 1	< 1	< 2	---	---	

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS									
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>g</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>o</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals
MW-8		02/26/97	11.98	--	0.00	26.12	14.14	< 100	---	< 200	---	< 0.5	< 1	< 1	< 2	---	---
MW-8		06/09/97	12.36	--	0.00	26.12	13.76	110	---	< 200	---	< 0.5	< 1	< 1	< 2	< 10	---
MW-8		08/25/97	12.25	--	0.00	26.12	13.87	70	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2	< 5	---
MW-8		11/28/97	11.70	--	0.00	26.12	14.42	110	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2	< 5	---
MW-8		02/12/98	11.34	--	0.00	26.12	14.78	70	---	< 200	---	< 0.5	< 0.5	0.6	< 2	< 5	---
MW-8		05/20/98	12.21	--	0.00	26.12	13.91	< 50	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2	< 5	---
MW-8		08/11/98	12.60	--	0.00	26.12	13.52	64	---	< 500	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---
MW-8		11/10/98	12.26	--	0.00	26.12	13.86	52	---	< 250	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---
MW-8		02/11/99	11.00	--	0.00	26.12	15.12	59	---	< 500	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---
MW-8		05/11/99	12.29	--	0.00	26.12	13.83	< 50	---	< 250	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---
MW-8		08/10/99	12.72	--	0.00	26.12	13.40	72	---	< 250	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0	---
MW-8		10/26/99	12.85	--	0.00	26.12	13.27	63	---	< 250	---	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	---
MW-8		02/25/00	11.20	--	0.00	26.12	14.92	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-8		05/03/00	12.15	--	0.00	26.12	13.97	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-8		08/02/00	12.30	--	0.00	26.12	13.82	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-8		11/07/00	12.00	--	0.00	26.12	14.12	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-8		02/15/01	11.40	--	0.00	26.12	14.72	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-8		04/26/01	11.93	--	0.00	26.12	14.19	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-8		07/23/01	12.55	--	0.00	26.12	13.57	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-8		11/01/01	12.60	--	0.00	26.12	13.52	< 50	---	< 100	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
MW-8	5	03/28/02	11.69	--	0.00	26.12	14.43	---	---	---	---	---	---	---	---	---	---
MW-8	5	06/06/02	11.86	--	0.00	26.00	14.14	---	---	---	---	---	---	---	---	---	---
MW-8	2	09/07/02	12.61	--	0.00	26.00	13.39	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-8	5	12/11/02	12.30	--	0.00	26.00	13.82	---	---	---	---	---	---	---	---	---	---
MW-8	2	03/12/03	11.95	--	0.00	26.00	14.05	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-8	2	06/05/03	12.07	--	0.00	26.00	13.93	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-8	2	09/26/03	12.56	--	0.00	26.00	13.44	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-8	2	12/05/03	11.45	--	0.00	26.00	14.55	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-8	2	02/12/04	11.70	--	0.00	26.00	14.30	< 50	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
MW-9		12/02/96	11.52	--	--	--	--	210	---	250	---	< 0.5	< 1	< 1	< 2	---	---
MW-9		02/26/97	11.55	--	--	--	--	170	---	340	---	< 0.5	< 1	< 1	< 2	---	---
MW-9		06/09/97	11.91	--	--	--	--	130	---	350	---	0.8	< 1	< 1	< 2	< 10	---
MW-9		08/25/97	11.80	--	--	--	--	110	---	< 200	---	< 0.5	0.8	< 0.5	< 2	< 5	---
MW-9		11/28/97	11.15	--	--	--	--	150	---	< 200	---	< 0.5	0.5	0.9	< 2	< 5	---
MW-9		02/12/98	10.63	--	--	--	--	60	---	< 200	---	< 0.5	< 0.5	< 0.5	< 2	< 5	---
MW-9		05/20/98	11.73	--	--	--	--	130	---	< 200	---	< 0.5	< 0.5	0.9	< 2	< 5	---
MW-9		08/11/98	12.15	--	--	--	--	240	---	< 500	---	< 0.5	< 0.5	< 0.5	0.76	< 2.5	---
MW-9		11/10/98	11.81	--	--	--	--	220	---	< 250	---	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5	---

Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS									
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>1</sub> (µg/L)	TPH <sub>2</sub> (µg/L)	TPH <sub>3</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals
MW-9		02/11/99	10.66	--	--	--	--	52	--	< 500	--	< 0.50	< 0.50	< 0.50	< 0.50	3.5	--
MW-9		05/11/99	11.69	--	--	--	--	96	--	< 250	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--
MW-9		08/10/99	12.67	--	0.00	25.03	12.36	130	--	< 250	--	< 0.5	< 0.5	< 0.5	0.96	< 2.0	--
MW-9		10/26/99	12.28	--	0.00	25.03	12.75	130	--	< 250	--	< 0.5	< 0.5	< 0.5	< 0.5	3.3/2.1	--
MW-9		02/25/00	10.60	--	0.00	25.03	14.43	< 50	--	< 100	--	< 0.5	< 0.5	< 0.5	< 0.5	0.8	--
MW-9		05/03/00	11.70	--	0.00	25.03	13.33	150	--	< 100	--	< 0.5	< 0.5	< 0.5	< 0.5	1.5	--
MW-9		08/02/00	11.88	--	0.00	25.03	13.15	210	--	< 100	--	< 0.5	< 0.5	< 0.5	< 0.5	2.2	--
MW-9		11/07/00	11.56	--	0.00	25.03	13.47	190	--	< 100	--	< 0.5	< 0.5	< 0.5	< 0.5	1.4	--
MW-9		02/15/01	10.95	--	0.00	25.03	14.08	110	--	< 100	--	< 0.5	< 0.5	< 0.5	< 0.5	1.4	--
MW-9		04/26/01	11.52	--	0.00	25.03	13.51	150	--	< 100	--	< 0.5	< 0.5	< 0.5	< 0.5	1.6	--
MW-9		07/23/01	12.09	--	0.00	25.03	12.94	140	--	< 100	--	< 0.5	< 0.5	< 0.5	< 0.5	1.6	--
MW-9		11/01/01	12.17	--	0.00	25.03	12.86	310	--	< 100	--	< 0.5	< 0.5	< 0.5	< 0.5	1.5	--
MW-9	2	03/28/02	11.34	--	0.00	25.03	13.69	55	60	< 500	--	< 0.5	< 0.5	< 0.5	< 1	< 5	--
MW-9	2	06/06/02	11.68	--	0.00	24.67	12.99	102	< 500	< 2,000	--	< 1	< 1	< 1	< 2	< 2	--
MW-9	2	09/07/02	12.29	--	0.00	24.67	12.38	117	< 500	< 2,000	--	< 1	< 1	< 1	< 2	< 2	--
MW-9	2	12/11/02	12.06	--	0.00	24.67	12.97	123	< 500	< 2,000	--	< 1	< 1	< 1	< 2	< 2	--
MW-9	2	03/12/03	11.80	--	0.00	24.67	12.87	55	< 500	< 2,000	--	< 1	< 1	< 1	< 2	3.3	--
MW-9	2	06/05/03	11.89	--	0.00	24.67	12.78	50	< 500	< 2,000	--	< 1	< 1	< 1	< 2	2.2	--
MW-9	2	09/26/03	12.26	--	0.00	24.67	12.41	78	< 500	< 2,000	--	< 1	< 1	< 1	< 2	2.2	--
MW-9	2	12/05/03	11.41	--	0.00	24.67	13.26	56	< 500	< 2,000	--	< 1	< 1	< 1	< 2	< 2	--
MW-9	2	02/12/04	11.56	--	0.00	24.67	13.11	54	< 500	< 2,000	--	< 1	< 1	< 1	< 2	< 2	--
EW-1		09/04/96	--	--	--	--	--	1,100	--	1,700	--	< 0.5	< 1	< 1	< 2	--	--
EW-1		12/02/96	12.17	--	--	--	--	1,000	--	1,400	--	6.2	< 1	< 1	< 2	--	--
EW-1		02/26/97	12.13	--	--	--	--	1,200	--	2,100	--	12	< 1	< 1	< 2.1	--	--
EW-1		06/09/97	12.46	--	--	--	--	1,400	--	12,000	--	83	< 1	< 1	< 2.0	13	--
EW-1		08/25/97	12.35	--	--	--	--	1,400	--	15,000	--	7.5	0.9	0.9	2	12	--
EW-1		11/28/97	12.12	--	--	--	--	560	--	5,700	--	4.5	1.1	1.1	4	5.0	--
EW-1		02/12/98	11.83	--	--	--	--	1,000	--	6,300	--	9.8	0.6	1.2	2	30	--
EW-1		05/20/98	12.51	--	--	--	--	820	--	6,200	--	7.2	< 0.5	< 0.5	< 2.0	26	--
EW-1		08/11/98	12.85	--	--	--	--	320	--	5,400	--	2.6	< 0.5	< 0.5	0.86	8.7	--
EW-1		11/10/98	12.55	--	--	--	--	820	--	2,900	--	< 0.5	< 0.5	< 0.5	0.75	13	--
EW-1		02/11/99	11.66	--	--	--	--	720	--	1,300	--	4.0	< 0.5	0.51	0.94	14	--
EW-1		05/11/99	12.56	--	--	--	--	680	--	4,800	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--
EW-1		08/10/99	12.91	--	0.00	26.80	13.89	730	--	1,100	--	< 0.5	< 0.5	< 0.5	< 0.5	3.6	--
EW-1		10/26/99	13.00	--	0.00	26.80	13.80	1,500	--	13,000	--	< 0.5	< 0.5	< 0.5	< 0.5	< 50	--
EW-1		02/25/00	11.41	--	0.00	26.80	15.39	1,100	--	6,300	--	< 0.5	< 0.5	< 0.5	< 0.5	2.2	--
EW-1		05/03/00	12.36	--	0.00	26.80	14.44	110	--	3,100	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--
EW-1		08/02/00	12.51	--	0.00	26.80	14.29	1,100	--	4,500	--	< 0.5	< 0.5	< 0.5	< 0.5	2.6	--



Appendix B  
 Historical Groundwater Monitoring Results  
 Former Sears Auto Center No. 1058B  
 2600 Telegraph Avenue  
 Oakland, California

Well No.	Notes	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS									
			Depth to Groundwater (ft bgs)	Depth to Product (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH <sub>g</sub> (µg/L)	TPH <sub>d</sub> (µg/L)	TPH <sub>a</sub> (µg/L)	TRPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Dissolved Metals
EW-1		11/07/00	12.27	--	0.00	26.80	14.53	1,200	---	5,100	---	< 0.5	< 0.5	< 0.5	< 0.5	2.1	---
EW-1		02/15/01	11.66	--	0.00	26.80	15.14	1,100	---	11,000	---	< 0.5	< 0.5	< 0.5	< 0.5	2.0	---
EW-1		04/26/01	12.12	--	0.00	26.80	14.68	1,600	---	6,600	---	< 0.5/0.5 <sup>l</sup>	< 0.5/0.5 <sup>l</sup>	< 0.5/0.5 <sup>l</sup>	< 0.5/0.5 <sup>l</sup>	2.3	---
EW-1		07/23/01	12.59	--	0.00	26.80	14.21	930	---	15,000	---	< 0.5	< 0.5	< 0.5	< 0.5	1.8	---
EW-1		11/01/01	12.74	--	0.00	26.80	14.06	1200	---	6,000	---	< 0.5	< 0.5	< 0.5	< 0.5	1.7	---
EW-1	2	03/28/02	11.85	--	0.00	26.80	14.95	930	710	< 500	---	< 0.5	< 0.5	< 0.5	< 1	< 5	---
EW-1	2,3	03/28/02	11.85	--	0.00	26.80	14.95	800	510	< 500	---	< 0.5	< 0.5	< 0.5	< 1	< 5	---
EW-1	2	06/06/02	12.09	--	0.00	26.39	14.30	1,040	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
EW-1	2	09/07/02	12.63	--	0.00	26.39	13.76	1,050	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
EW-1	2,3	09/07/02	12.63	--	0.00	26.39	13.76	942	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
EW-1	2	12/11/02	12.57	--	0.00	26.39	14.23	1040	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
EW-1	2,3	12/11/02	12.57	--	0.00	26.39	14.23	1100	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
EW-1	2	03/12/03	12.20	--	0.00	26.39	14.19	1,030	< 500	< 2,000	---	< 1	< 1	< 1	< 2	3.0	---
EW-1	2,3	03/12/03	12.20	--	0.00	26.39	14.19	927	< 500	< 2,000	---	< 1	< 1	< 1	< 2	3.3	---
EW-1	2	06/05/03	12.30	--	0.00	26.39	14.09	712	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.5	---
EW-1	2,3	06/05/03	12.30	--	0.00	26.39	14.09	685	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.0	---
EW-1	2	09/26/03	12.70	--	0.00	26.39	13.69	846	< 500	< 2,000	---	< 1	< 1	< 1	< 2	2.0	---
EW-1	2	12/05/03	11.77	--	0.00	26.39	14.62	886	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
EW-1	2	02/12/04	11.94	--	0.00	26.39	14.45	766	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---
EW-1	2,3	02/12/04	11.94	--	0.00	26.39	14.45	833	< 500	< 2,000	---	< 1	< 1	< 1	< 2	< 2	---

- Notes: 1. "Pre-purge" sample (well not purged prior to sampling).  
 2. "Post-purge" sample  
 3. Duplicate sample analysis.  
 4. Well inaccessible during sampling event and not sampled.  
 5. Groundwater well not sampled

--- = Either not present or not measured.

SH = Product sheen observed in field.

SPH = Separate phase hydrocarbons

ND = Non-detectable (Detection limits for each metal are listed in laboratory reports.)

mg/l = Milligrams per liter

\* = Water samples were not filtered; analytical results represent total metals present, not dissolved concentrations.

\*\* = Uncategorized hydrocarbon compound not included in this hydrocarbon concentration.

\*\*\* = The carbon ranges reported under the TPH oil range analyses may have varied over the monitoring period

BTEX = Volatile aromatic constituents Benzene, Toluene, Ethylbenzene,

and Xylenes by EPA Method 8020/8021B or 8260B

TPHg = Total Petroleum Hydrocarbons as gasoline range hydrocarbons by EPA Method 8015 (modified)

TPHd = Total Petroleum Hydrocarbons as diesel range hydrocarbons by EPA Method 8015 (modified).

TRPo = Total Petroleum Hydrocarbons as oil range by EPA Method 8015 (modified)

TRPH = Total Recoverable Petroleum Hydrocarbons by EPA Method 418.1

MTBE = Methyl Tertiary Butyl Ether by CA LUFT/EPA Method 8021B/8260B

< = Analytical result less than the detection limit indicated.

--- = Either not sampled and/or not tested for given parameter

J = Analyte detection is less than the Reporting Limit and greater than or equal to the Method Detection Limit

mg/l = Milligrams per liter

µg/l = Micrograms per liter

a = Dissolved lead

b = Dissolved lead only analyte detected

c = Dissolved lead, cadmium, total chromium, nickel, and zinc

d = Cadmium only analyte detected

e = Hydrocarbon pattern not characteristic of motor oil

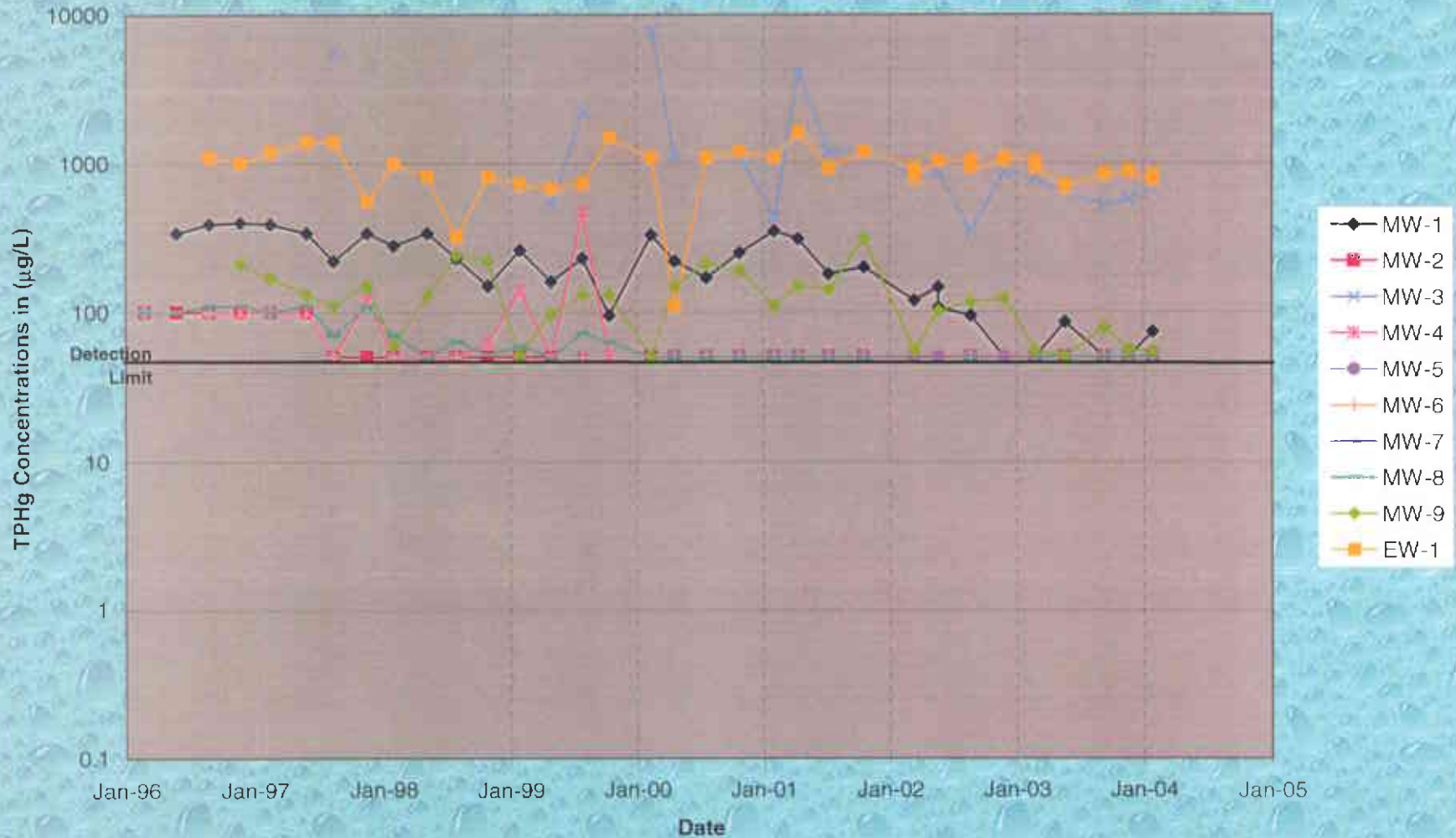
f = Uncategorized compounds included in concentration

z = Zinc only analyte detected

h = Chromium only analyte detected

i = Duplicate sample result from EPA Method 8260A

### Historical TPHg Concentrations in Groundwater Monitoring Wells Sears Auto Center #1058B - Oakland, California





**APPENDIX C**  
**CONFIRMATION SOIL BORING LOGS**

**Project: SEARS #1058B**

**Project Location: 2600 Telegraph Avenue, Oakland, CA**

**Project Number: 29863494**

# Log of Boring CB-1

Sheet 1 of 1

Date(s) Drilled	2/17/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	28
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	~26
Approx. Depth Groundwater Encountered	25 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout

Comments

Depth, feet	SAMPLES				MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered					
0					4 inches Asphalt				
0-5					Brownish gray, Sandy SILT (ML), mottled			0717	Hand augered to 5 feet bgs.
5			9			1.6	0.0	0720	
5-10		CB1-5							
10			7		Dark gray, Silty CLAY (CL), moist, medium stiff, trace fine sand	81	0.0	0730	
10-15		CB1-10							
15			12		Brownish gray, Silty fine SAND (SM), with trace clay, dry, loose, mottled	0.0	0.0	0747	
15-20		CB1-15							
20			24			0.0	0.0	0754	
20-25		CB1-20							
25			30		Gray and brown, Silty fine Gravel (GM) with fine to coarse sand, wet, medium dense			0800	
25-30									
30					Completed boring to 28 feet bgs on February 17, 2004.				

Report: ENV\_108\_PORT\_TEMP; File: SEARS - TELGRAPH ROAD, OAK.GPJ; 8/14/2004 CB-1



Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-2

Sheet 1 of 1

Date(s) Drilled	2/17/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	25
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	~26
Approx. Depth Groundwater Encountered	24 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered						
0					4 inches Asphalt					
25					Gray brown, Silty SAND (SM), mottled				0819	Hand augered to 5 feet bgs
5		CB2-5		12	Dark gray, Silty CLAY (CL), dry, medium stiff, trace fine sand	2.4	0.0		0840	
20					Gray, Silty fine GRAVEL (GM) with sand					
10		CB2-10		20		0.0	0.0		0841	
15					Brown gray, Silty fine SAND (SM), moist, mottled, trace clay					
15		CB2-15		13	Becomes loose	0.0	0.0		0843	
20		CB2-20		23	Becomes Silty fine to medium sand, trace clay, iron oxide staining	0.5	0.0		0847	
25		CB2-25		20	Contains trace gravel, wet	∇	0.0	0.0	0849	
0					Completed boring to 25 feet bgs on February 17, 2004.					
30										

Report: ENV\_10B\_PORT\_TEMP - File: SEARS - TELGRAPH ROAD, OAK.GPJ, 6/14/2004 CB-2

Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-3

Sheet 1 of 1

Date(s) Drilled	2/17/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft	22
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	~26
Approx. Depth Groundwater Encountered	20 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered					
0					4 inches Asphalt				
0-5					Dark gray and brown, Silty CLAY (CL), medium stiff, trace sand				Hand augered to 5 feet bgs
5			10			100	0.0	0927	
5-10		CB3-5							
10			18		Gray brown, fine Sandy SILT (ML), wet, stiff, trace silt, fine gravel sized pieces of siltstone, mottled	0.0	0.0	0937	
10-15		CB3-10							
15			16		Gray brown, Silty fine SAND (SM), moist, loose, trace clay	0.0	0.0	0938	
15-20		CB3-15							
20			18			0.0	0.0	0941	
20-21.5					Completed boring to 21.5 feet bgs on February 17, 2004.				
21.5-25									
25-30									

Report: ENV\_10B\_PORT\_TEMP, File: SEARS - TELEGRAPH ROAD, OAK.GPJ, 6/14/2004 CB-3



Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-4

Sheet 1 of 1

Date(s) Drilled	2/17/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	27
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	~26
Approx. Depth Groundwater Encountered	23 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout

Comments

Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered						
0					4 inches Asphalt					
0-5					Dark gray, Silty CLAY (CL), moist, medium stiff, trace sand					Hand augered to 5 feet bgs
5			15		Becomes Dark brown, CLAY, trace fine sand and trace silt	5.3	0.0	1025		
5-10		CB4-5								
10			18			0.0	0.0	1028		
10-15		CB4-10			Becomes mottled gray and brown					
15			16		Becomes moist	-	-	1031		
15-20		CB4-15								
20			10		Gray brown, Silty fine to coarse SAND (SM), moist, loose, trace clay, mottled	0.0	0.0	1036		
20-25		CB4-20								
25			20		Gray brown, Silty fine to coarse Gravel (GM) with fine to coarse sand, wet, medium dense, mottled	0.0	0.0	1039		
25-30		CB4-25								
30					Completed boring to 26.5 feet bgs on February 17, 2004.					

Report: ENV\_106\_PORT\_TEMP; File: SEARS - TELGRAPH ROAD, OAK.GPJ; 6/14/2004 CB-4



Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-5

Sheet 1 of 1

Date(s) Drilled	2/17/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	22
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	-26
Approx. Depth Groundwater Encountered	19 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered					
0					4 inches Asphalt				
25					Gray brown, Silty fine SAND (SM), moist, mottled				Hand augered to 5 feet bgs
5			7		Gray brown, Silty CLAY (CL), medium stiff, trace fine sand	0.0	0.0	1127	
20		CB5-5			Becomes Dark gray, moist, hydrocarbon odor				
10			11		Becomes medium stiff	40.38	0.0	1135	
15		CB5-10							
10			14		Dark gray and brown, Silty fine SAND (SM), loose, mottled, trace fine gravel	0.0	0.0	1143	
15		CB5-15							
20			20		Gray brown, Silty fine to coarse GRAVEL (GM) with fine to coarse sand, wet, medium dense	0.0	0.0	1150	
5		CB5-20							
					Completed boring to 21.5 feet bgs on February 17, 2004.				
25									
0									
30									

Report ENV\_10B\_PORT\_TEMP. File SEARS - TELEGRAPH ROAD, OAK GPJ, 6/14/2004, CB-5

Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-6

Sheet 1 of 1

Date(s) Drilled	2/17/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft	22
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	-26
Approx. Depth Groundwater Encountered	20 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout

Comments

Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered						
0					4 inches Asphalt					
0-5					Dark brown, Silty CLAY (CL), dry, stiff					Hand augered to 5 feet bgs
5			12		Becomes mottled gray brown, medium stiff, trace fine gravel	0.0	0.0	1358		
10			15		Becomes stiff, hydrocarbon odor	0.0	0.0	1401		
15			18		Gray brown, Silty fine SAND (SM), moist, medium dense, mottled	0.0	0.0	1404		
20			20		Becomes wet, trace fine gravel	0.0	0.0	1407		
21.5					Completed boring to 21.5 feet bgs on February 17, 2004.					

Report: ENV\_10B\_PORT\_TEMP\_1 File: SEARS - TELGRAPH ROAD, OAK.GPJ\_ 6/14/2004 CB-6

Project: SEARS #1058B

Project Location: 2600 Telegraph Avenue, Oakland, CA

Project Number: 29863494

# Log of Boring CB-7

Sheet 1 of 1

Date(s) Drilled	2/17/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	22
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	~26
Approx. Depth Groundwater Encountered	20 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered						
0					4 inches Asphalt					
5			13		Gray brown, Silty fine SAND (SM), moist	0.0	0.0	1443		Hand augered to 5 feet bgs
10		CB7-5								
15			16		Gray brown, Silty CLAY (CL), stiff	0.0	0.0	1446		
20		CB7-10								
25			16		Becomes dark gray, wet, trace fine to coarse gravel, hydrocarbon odor	0.0	0.0	1449		
30		CB7-15								
35			19		Gray reddish brown, Silty fine to coarse GRAVEL (GM) with fine to coarse sand, wet, medium dense, mottled	0.0	0.0	1451		
40		CB7-20								
45					Completed boring to 21.5 feet bgs on February 17, 2004.					

Report: ENV\_10B\_PORT\_TEMP, File: SEARS - TELGRAPH ROAD\_OAK GPL\_6/14/2004 CB-7

Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-8

Sheet 1 of 1

Date(s) Drilled	2/18/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	22
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	-26
Approx. Depth Groundwater Encountered	14 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blow/Foot	Inches Recovered					
0					4 inches Asphalt				
0-5					Dark gray and brown, Silty CLAY (CL), medium stiff				Hand augered to 5 feet bgs
5			14		Becomes stiff	64.7	0.0	0712	
5-10		CB8-5							
10			15		Becomes gray, soft, moist, hydrocarbon odor	1.3	0.0	0714	
10-15		CB8-10							
15			15		Gray brown, fine Sandy CLAY to Clayey fine SAND (CL-SC), wet, mottled, trace silt	0.0	0.0	0718	
15-20		CB8-15							
20			22		Trace fine gravel	0.0	0.0	0720	
20-21.5					Completed boring to 21.5 feet bgs on February 18, 2004.				
21.5-25									
25-30									

Report: ENV\_10B\_PORT\_TEMP, File: SEARS - TELGRAPH ROAD, OAK.GPJ, 6/14/2004 - CB-8

Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-9

Sheet 1 of 1

Date(s) Drilled	2/18/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft	22
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	~26
Approx. Depth Groundwater Encountered	18 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered					
0					4 inches Asphalt				
0-5					Gray brown, Silty CLAY (CL), dry, stiff, trace fine sand				Hand augered to 5 feet bgs
5			12		Becomes medium stiff	12.6	0.0	0745	
10			16		Becomes dark gray, moist, stiff	0.0	0.0	0751	
15			20		Gray brown, Silty fine SAND (SM), moist, medium dense, trace fine to coarse gravel, mottled	0.0	0.0	0753	
20			25		Increase in sand and gravel	0.0	0.0	0755	
21.5					Completed boring to 21.5 feet bgs on February 18, 2004.				

Report ENV\_10B\_PORT\_TEMP; File SEARS - TELGRAPH ROAD, OAK.GPJ; 6/14/2004 CB-9

Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-10

Sheet 1 of 1

Date(s) Drilled	2/18/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	22
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	~26
Approx. Depth Groundwater Encountered	14 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered					
0					4 inches Asphalt				
0-5					Gray brown, fine Sandy SILT (ML), dry, mottled				Hand augered to 5 feet bgs
5			11		Becomes medium stiff	0.0	0.0	0838	
5-10	CB10-5								
10			16		Dark gray, Silty CLAY (CL), moist, soft, trace fine sand, hydrocarbon odor	61.8	0.0	0845	
10-15	CB10-10				Becomes stiff				
15			22		Dark gray, Silty fine to coarse GRAVEL (GM) with fine to coarse sand, wet, medium dense	0.0	0.0	0854	
15-20	CB10-15								
20			22		Increase in coarse gravel	0.0	0.0	0900	
20-21.5					Completed boring to 21.5 feet bgs on February 18, 2004.				

Report: ENV\_10B\_PDR\_TEMP. File: SEARS - TELEGRAPH ROAD, OAK GP1, 6/14/2004, CB-10



Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-11

Sheet 1 of 1

Date(s) Drilled	2/18/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	22
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	-26
Approx. Depth Groundwater Encountered	14 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered					
0					4 inches Asphalt Gray and brown, fine Sandy SILT (ML), dry, mottled				Hand augered to 5 feet bgs
5			11		Becomes medium stiff, trace clay	0.0	0.0	1053	
10		CB11-5							
15			10			0.0	0.0	1056	
20		CB11-10							
25			16		Becomes dark gray, fine to coarse Sandy SILT, stiff	0.0	0.0	1059	
30		CB11-15							
35			23		Becomes Brown and reddish brown, increase in clay, mottled	0.0	0.0	1102	
40					Completed boring to 21.5 feet bgs on February 18, 2004.				

Report ENV 10B\_PORT\_TEMP File SEARS - TELGRAPH ROAD, OAK GPJ. 6/14/2004 CB-11



**Project: SEARS #1058B**  
**Project Location: 2600 Telegraph Avenue, Oakland, CA**  
**Project Number: 29863494**

**Log of Boring CB-12**

Sheet 1 of 1

Date(s) Drilled	2/18/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	12
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	-26
Approx. Depth Groundwater Encountered		Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered						
0						4 inches Asphalt Pea Gravel				
5									1307	No Recovery from 5 to 7 feet
10			15			Brown, fine Sandy SILT (ML), wet, stiff, trace clay	0.0	0.0	1316	
11.5	CB-11-10					Refusal at 11.5 feet due to Geofabric binding up augers.				
15										
20										
25										
30										

Report: ENV\_10B\_PORT\_TEMP, File: SEARS - TELGRAPH ROAD, OAK.GPJ, 6/14/2004 CB-12



Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-13

Sheet 1 of 1

Date(s) Drilled	2/18/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	22
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	~26
Approx. Depth Groundwater Encountered	14 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Foot	Inches Recovered						
0										
25					4 inches Asphalt Pea Gravel					Hand augered to 5 feet bgs
5			11			Gray brown, fine Sandy SILT (ML), dry, mottled, trace clay	14.86	0.0	1233	
20		CB13-5								
10			10			Gray, fine Sandy CLAY (CL), moist, medium stiff, trace silt	20.75	0.0	1236	
15		CB13-10								
15			14			Gray, Silty fine to coarse GRAVEL (GM) with fine to coarse sand, wet, slight hydrocarbon odor	0.0	0.0	1238	
10		CB13-15								
20			15			Brown and reddish brown, fine Sandy SILT (ML), moist, stiff, mottled	0.0	0.0	1241	
5		CB13-20								
						Completed boring to 21.5 feet bgs on February 18, 2004.				
25										
0										
30										

Report: ENV\_10B\_PORT\_TEMP, File: SEARS - TELGRAPH ROAD, OAK.GPJ, 6/14/2004 CB-13

Project: SEARS #1058B  
 Project Location: 2600 Telegraph Avenue, Oakland, CA  
 Project Number: 29863494

# Log of Boring CB-14

Sheet 1 of 1

Date(s) Drilled	2/18/04	Logged By	B. Graham	Checked By	J. Liles
Drilling Method	Hollow-Stem Auger	Drilling Contractor	BC <sup>2</sup> Environmental	Total Depth of Borehole ft.	22
Drill Rig Type	CME 85	Borehole Diameter (inches)	8"	Approx. Surface Elevation ft msl	~26
Approx. Depth Groundwater Encountered	18 feet bgs	Sampler Type	Split-Spoon Sampler	Borehole Backfill	Bentonite grout
Comments					

Depth, feet	SAMPLES				MATERIAL DESCRIPTION	PID Headspace (ppm)	PID Background (ppm)	Sample Time	REMARKS
	Type	Number	Blows/Feet	Inches Recovered					
0					4 inches Asphalt Gray and brown, fine Sandy SILT (ML), dry, mottled				Hand augered to 5 feet bgs
5			15		Becomes stiff	0.0	0.0	1342	
10		CB14-5							
15			21		Becomes trace coarse sand	0.0	0.0	1345	
20		CB14-10							
25			31		Gray brown, Silty fine SAND (SM), moist, medium dense, trace fine to coarse gravel	0.0	0.0	1350	
30		CB14-15							
35			25		Brown and reddish brown, fine Sandy SILT (ML), moist, very stiff	0.0	0.0	1354	
40		CB14-20							
45					Completed boring to 21.5 feet bgs on February 18, 2004.				

Report: ENV\_10B\_PORT\_TEMP, File: SEARS - TELGRAPH ROAD, OAK.GPJ, 6/14/2004 CB-14



**APPENDIX D**  
**LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTS**  
**FOR SOIL**



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

Mr. Scott Rowlands  
URS Corporation  
2020 E. First Street, Suite 400  
Santa Ana, CA 92705

Project: Sears Oakland  
Project Site: Sears Oakland  
Sample Date: 02-17-2004  
Lab Job No.: UR402100

Dear Mr. Rowlands:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 02-19-2004 and analyzed by the following EPA methods:

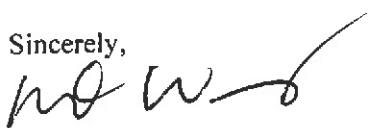
EPA 8260B (VOCs by GC/MS)  
EPA 8015M (Gasoline)  
EPA 8015M (Diesel & Oil)  
EPA 7420 (Total Lead)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

STS Environmental Laboratory is certified by CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Sincerely,

  
Roger Wang, Ph. D.  
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



# Southland Technical Services, Inc.

## Environmental Laboratories

02-27-2004

Client: URS Corporation  
 Project: Sears Oakland  
 Project Site: Sears Oakland  
 Matrix: Soil  
 Batch No.: CB19-GS1  
 Batch No.: EB20-DS1

Lab Job No.: UR402100  
 Date Sampled: 02-17-2004  
 Date Received: 02-19-2004  
 Date Analyzed: 02-19-2004  
 Date Analyzed: 02-20-2004

### EPA Method 8015M (Total Petroleum Hydrocarbons)

Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	C4-C12 (Gasoline Range)	Surrogate Recovery% (TPH-g)	C13-C23 (Diesel Range)	C24-C40 (Oil Range)	Surrogate Recovery% (TPH-d &o)
Method Detection Limit		0.5		5	50	
Method Blank		ND	108	ND	ND	84
CB1-5	UR402100-1	4.1	90	ND	ND	88
CB1-10	UR402100-2	25.2	100	ND	ND	80
CB1-15	UR402100-3	1.3	95	ND	ND	78
CB1-20	UR402100-4	ND	90	ND	ND	86
CB2-5	UR402100-5	2.1	92	ND	ND	82
CB2-10	UR402100-6	1.4	73	ND	ND	90
CB2-15	UR402100-7	ND	92	ND	ND	88
CB2-20	UR402100-8	ND	91	ND	ND	86
CB2-25	UR402100-9	ND	96	ND	ND	86
CB3-5	UR402100-10	645	132 m	ND	ND	90
CB3-10	UR402100-11	ND	88	ND	ND	90
CB3-15	UR402100-12	ND	66 m	ND	ND	84
CB4-5	UR402100-13	4.7	84	21	305	118
CB4-10	UR402100-14	4.6	110	ND	ND	90
CB4-15	UR402100-15	ND	90	ND	ND	86
CB4-20	UR402100-16	ND	85	ND	ND	90
CB4-25	UR402100-17	ND	81	ND	ND	90
CB5-5	UR402100-18	ND	113	ND	ND	90
CB5-10	UR402100-19	72.1	100	202	1,430	270 m
CB5-15	UR402100-20	1.3	86	ND	ND	82

\* Gasoline concentrations were obtained from Purge & Trap analysis.

ND: Not Detected (at the specified limit).

m: Matrix Interference



# Southland Technical Services, Inc.

Environmental Laboratories

02-27-2004

Client: URS Corporation  
 Project: Sears Oakland  
 Project Site: Sears Oakland  
 Matrix: Soil  
 Batch No.: AB20-GS1  
 Batch No.: EB20-DS2

Lab Job No.: UR402100  
 Date Sampled: 02-17-2004  
 Date Received: 02-19-2004  
 Date Analyzed: 02-20/21-2004  
 Date Analyzed: 02-20-2004

**EPA Method 8015M (Total Petroleum Hydrocarbons)**  
 Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	C4-C12 (Gasoline Range)	Surrogate Recovery% (TPH-g)	C13-C23 (Diesel Range)	C24-C40 (Oil Range)	Surrogate Recovery% (TPH-d & o)
Method Detection Limit		0.5		5	50	
Method Blank		ND	81	ND	ND	84
CB5-20	UR402100-21	2.0	79	ND	ND	86
CB6-5	UR402100-22	0.6	82	ND	ND	76
CB6-10	UR402100-23	ND	78	36	186	122
CB6-15	UR402100-24	ND	75	ND	ND	76
CB6-20	UR402100-25	ND	79	ND	ND	82
CB7-5	UR402100-26	ND	105	ND	ND	74
CB7-10	UR402100-27	ND	94	ND	ND	88
CB7-15	UR402100-28	ND	104	ND	ND	74
CB7-20	UR402100-29	ND	81	ND	ND	74
CB8-5	UR402100-30	1,780	89	30	ND	74
CB8-10	UR402100-31	36.5	99	ND	ND	78
CB8-15	UR402100-32	ND	72	ND	ND	78
CB9-5	UR402100-33	ND	87	ND	ND	80
CB9-10	UR402100-34	ND	79	ND	ND	74
CB9-15	UR402100-35	ND	107	ND	ND	74
CB9-20	UR402100-36	ND	91	ND	ND	72
CB10-5	UR402100-37	ND	130	ND	ND	84
CB10-10	UR402100-38	172	105	ND	ND	88
CB10-15	UR402100-39	ND	88	ND	ND	82
CB11-5	UR402100-40	ND	101	ND	ND	94

\* Gasoline concentrations were obtained from Purge & Trap analysis.  
 ND: Not Detected (at the specified limit).



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

Client: URS Corporation  
Project: Sears Oakland  
Project Site: Sears Oakland  
Matrix: Soil  
Batch No.: CB21-GS1  
Batch No.: EB23-DS3

Lab Job No.: UR402100  
Date Sampled: 02-17-2004  
Date Received: 02-19-2004  
Date Analyzed: 02-21-2004  
Date Analyzed: 02-23-2004

**EPA Method 8015M (Total Petroleum Hydrocarbons)**  
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	C4-C12 (Gasoline Range)	Surrogate Recovery% (TPH-g)	C13-C23 (Diesel Range)	C24-C40 (Oil Range)	Surrogate Recovery% (TPH-d & o)
Method Detection Limit		0.5		5	50	
Method Blank		ND	81	ND	ND	84
CB11-10	UR402100-41	ND	77	ND	ND	92
CB11-15	UR402100-42	11.0	90	ND	ND	96
CB12-10	UR402100-43	ND	87	ND	ND	84
CB13-5	UR402100-44	ND	82	ND	ND	84
CB13-10	UR402100-45	51.8	100	ND	ND	86
CB13-15	UR402100-46	5.3	120	ND	ND	88
CB13-20	UR402100-47	0.7	73	ND	ND	80
CB14-5	UR402100-48	ND	75	ND	ND	94
CB14-10	UR402100-49	ND	87	ND	ND	76
CB14-15	UR402100-50	ND	90	ND	ND	84
CB14-20	UR402100-51	ND	88	ND	ND	74

\* Gasoline concentrations were obtained from Purge & Trap analysis.

ND: Not Detected (at the specified limit).



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

Date ANALYZED		02-19-04	02-19-04	02-19-04	02-19-04	02-19-04	02-19-04
PREP METHOD		5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1	1
LAB SAMPLE I.D.			UR402100-1	UR402100-2	UR402100-3	UR402100-4	UR402100-5
CLIENT SAMPLE I.D.			CBI-5	CBI-10	CBI-15	CBI-20	CB2-5
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	102	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	32.6	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	2	ND	ND	11.6	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND





# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

**EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb**

COMPOUND	MDL	MB	CB1-5	CB1-10	CB1-15	CB1-20	CB2-5
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	2	ND	ND	21.4	ND	ND	ND
Total Xylenes	4	ND	ND	22.0	ND	ND	ND
Styrene	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethan	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	86.6	ND	ND	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	45.8	ND	ND	ND
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	122	ND	ND	ND
Sec-Butylbenzene	5	ND	ND	38.0	ND	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	88.4	ND	ND	5.9
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	10.6	43.6	ND	ND	7.6
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
Carbon disulfide	50	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	50	ND	ND	ND	ND	ND	ND
2-Hexanone	50	ND	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND	ND
Ethanol	500	ND	ND	ND	ND	ND	ND
MTBE	5	ND	ND	ND	ND	ND	ND
ETBE	5	ND	ND	ND	ND	ND	ND
DIPE	5	ND	ND	ND	ND	ND	ND
TAME	5	ND	ND	ND	ND	ND	ND
TBA	50	ND	ND	ND	ND	ND	ND
SURROGATE	Accept Limit%	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	79-126	80	98	89	93	101	105
Toluene-d8	79-121	110	112	117	112	106	125 m
Bromofluoro-benzene	71-131	87.7	89	107	91	87	93

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF × MDL).  
Surrogate injection concentration: 25 ug/L for all compounds.  
m=matrix interference



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

**EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)**

Date ANALYZED		02-19-04	02-19-04	02-19-04	02-19-04	02-19-04	02-19-04
PREP METHOD		5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1	100
LAB SAMPLE I.D.			UR402100-6	UR402100-7	UR402100-8	UR402100-9	UR402100-10
CLIENT SAMPLE I.D.			CB2-10	CB2-15	CB2-20	CB2-25	CB3-5
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC) (EDC)	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	1,400
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb

COMPOUND	MDL	MB	CB2-10	CB2-15	CB2-20	CB2-25	CB3-5
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	2	ND	ND	ND	ND	ND	3,070
Total Xylenes	4	ND	ND	ND	ND	ND	2,890
Styrene	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	4,720
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	8,930
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	25,500
Sec-Butylbenzene	5	ND	ND	ND	ND	ND	1,220
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	823
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	ND	ND	ND	ND	3,800
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
Carbon disulfide	50	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	50	ND	ND	ND	ND	ND	ND
2-Hexanone	50	ND	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND	ND
Ethanol	500	ND	ND	ND	ND	ND	ND
MTBE	5	ND	ND	ND	ND	ND	ND
ETBE	5	ND	ND	ND	ND	ND	ND
DIPE	5	ND	ND	ND	ND	ND	ND
TAME	5	ND	ND	ND	ND	ND	ND
TBA	50	ND	ND	ND	ND	ND	ND
SURROGATE	Accept Limit%	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	79-126	80	92	101	81	89	116
Toluene-d8	79-121	110	108	113	106	114	122
Bromofluoro-benzene	71-131	87.7	75	107	82	91	103

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF × MDL).  
Surrogate injection concentration: 25 ug/L for all compounds.



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

**EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)**

Date ANALYZED		02-19-04	02-19-04	02-19-04	02-19-04	02-19-04	02-19-04
PREP METHOD		5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	2	1
LAB SAMPLE I.D.			UR402100-11	UR402100-12	UR402100-13	UR402100-14	UR402100-15
CLIENT SAMPLE I.D.			CB3-10	CB3-15	CB4-5	CB4-10	CB4-15
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

**EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb**

COMPOUND	MDL	MB	CB4-20	CB4-25	CB5-5	CB5-10	CB5-15
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	2	ND	ND	ND	ND	ND	ND
Total Xylenes	4	ND	ND	ND	ND	ND	ND
Styrene	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	62.5	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	ND	ND	ND	ND	761	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	760	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	ND	ND	ND	363	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
Carbon disulfide	50	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	50	ND	ND	ND	ND	ND	ND
2-Hexanone	50	ND	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND	ND
Ethanol	500	ND	ND	ND	ND	ND	ND
MTBE	5	ND	ND	ND	ND	ND	ND
ETBE	5	ND	ND	ND	ND	ND	ND
DIPE	5	ND	ND	ND	ND	ND	ND
TAME	5	ND	ND	ND	ND	ND	ND
TBA	50	ND	ND	ND	ND	ND	ND
SURROGATE	Accept Limit%	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	79-126	80	105	90	101	112	91
Toluene-d8	79-121	110	116	116	104	105	113
Bromofluoro-benzene	71-131	87.7	109	99	78	111	96

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF × MDL).  
Surrogate injection concentration: 25 ug/L for all compounds.





# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

### EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

Date ANALYZED		02-20-04	02-20-04	02-20-04	02-20-04	02-20-04	02-20-04
PREP METHOD		5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1	1
LAB SAMPLE I.D.			UR402100-21	UR402100-22	UR402100-23	UR402100-24	UR402100-25
CLIENT SAMPLE I.D.			CB5-20	CB6-5	CB6-10	CB6-15	CB6-20
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

**EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb**

COMPOUND	MDL	MB	CB5-20	CB6-5	CB6-10	CB6-15	CB6-20
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	2	ND	ND	ND	ND	ND	ND
Total Xylenes	4	ND	ND	ND	ND	ND	ND
Styrene	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethan	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
Carbon disulfide	50	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	50	ND	ND	ND	ND	ND	ND
2-Hexanone	50	ND	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND	ND
Ethanol	500	ND	ND	ND	ND	ND	ND
MTBE	5	ND	ND	ND	ND	ND	ND
ETBE	5	ND	ND	ND	ND	ND	ND
DIPE	5	ND	ND	ND	ND	ND	ND
TAME	5	ND	ND	ND	ND	ND	ND
TBA	50	ND	ND	ND	ND	ND	ND
SURROGATE	Accept Limit%	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	79-126	99	86	101	98	80	87
Toluene-d8	79-121	110	113	97	96	108	113
Bromofluoro-benzene	71-131	88	78	94	92	91	76

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF × MDL).  
Surrogate injection concentration: 25 ug/L for all compounds.



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

**EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)**

Date ANALYZED		02-20-04	02-20-04	02-20-04	02-20-04	02-20-04	02-20-04
PREP METHOD		5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1	500
LAB SAMPLE I.D.			UR402100-26	UR402100-27	UR402100-28	UR402100-29	UR402100-30
CLIENT SAMPLE I.D.			CB7-5	CB7-10	CB7-15	CB7-20	CB8-5
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	5.8	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	14,300
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	2	ND	ND	ND	ND	7.3	1,630
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND





# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb

COMPOUND	MDL	MB	CB8-10	CB8-15	CB9-5	CB9-10	CB9-15
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	2	ND	129	ND	ND	ND	ND
Total Xylenes	4	ND	ND	ND	ND	ND	ND
Styrene	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	487	ND	ND	ND	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	72.5	ND	ND	ND	ND
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	215	ND	ND	ND	ND
Sec-Butylbenzene	5	ND	110	ND	ND	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	253	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	204	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
Carbon disulfide	50	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	50	ND	ND	ND	ND	ND	ND
2-Hexanone	50	ND	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND	ND
Ethanol	500	ND	ND	ND	ND	ND	ND
MTBE	5	ND	ND	ND	ND	ND	ND
ETBE	5	ND	ND	ND	ND	ND	ND
DIPE	5	ND	ND	ND	ND	ND	ND
TAME	5	ND	ND	ND	ND	ND	ND
TBA	50	ND	ND	ND	ND	ND	ND
SURROGATE	Accept Limit%	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	79-126	97	94	97	107	82	85
Toluene-d8	79-121	102	127 m	118	117	115	113
Bromofluoro-benzene	71-131	88	112	96	100	84	88

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF × MDL).  
Surrogate injection concentration: 25 ug/L for all compounds.



# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

Date ANALYZED		02-21-04	02-21-04	02-21-04	02-21-04	02-21-04	02-21-04
PREP METHOD		5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	20	1	1
LAB SAMPLE I.D.			UR402100-36	UR402100-37	UR402100-38	UR402100-39	UR402100-40
CLIENT SAMPLE I.D.			CB9-20	CB10-5	CB10-10	CB10-15	CB11-5
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	394	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb

COMPOUND	MDL	MB	CB9-20	CB10-5	CB10-10	CB10-15	CB11-5
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	2	ND	ND	ND	ND	ND	ND
Total Xylenes	4	ND	ND	ND	ND	ND	ND
Styrene	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethan	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	1,110	ND	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	5	ND	ND	ND	485	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	1,130	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	ND	ND	180	ND	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
Carbon disulfide	50	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	50	ND	ND	ND	ND	ND	ND
2-Hexanone	50	ND	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND	ND
Ethanol	500	ND	ND	ND	ND	ND	ND
MTBE	5	ND	ND	ND	ND	ND	ND
ETBE	5	ND	ND	ND	ND	ND	ND
DIPE	5	ND	ND	ND	ND	ND	ND
TAME	5	ND	ND	ND	ND	ND	ND
TBA	50	ND	ND	ND	ND	ND	ND
SURROGATE	Accept Limit%	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	79-126	97	119	95	104	92	90
Toluene-d8	79-121	102	118	98	124	108	118
Bromofluoro-benzene	71-131	88	101	90	120	88	101

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF × MDL).  
Surrogate injection concentration: 25 ug/L for all compounds.



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

Date ANALYZED		02-21-04	02-21-04	02-21-04	02-21-04	02-21-04	02-21-04
PREP METHOD		5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1	20
LAB SAMPLE I.D.			UR402100-41	UR402100-42	UR402100-43	UR402100-44	UR402100-45
CLIENT SAMPLE I.D.			CB11-10	CB11-15	CB12-10	CB13-5	CB13-10
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb

COMPOUND	MDL	MB	CB11-10	CB11-15	CB12-10	CB13-5	CB13-10
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	2	ND	ND	ND	ND	ND	340
Total Xylenes	4	ND	ND	ND	ND	ND	140
Styrene	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethan	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	110
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	250
Sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	ND	11.4	ND	ND	135
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
Carbon disulfide	50	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	50	ND	ND	ND	ND	ND	ND
2-Hexanone	50	ND	ND	ND	ND	ND	ND
Vinyl Acetate	50	ND	ND	ND	ND	ND	ND
Ethanol	500	ND	ND	ND	ND	ND	ND
MTBE	5	ND	ND	ND	ND	ND	ND
ETBE	5	ND	ND	ND	ND	ND	ND
DIPE	5	ND	ND	ND	ND	ND	ND
TAME	5	ND	ND	ND	ND	ND	ND
TBA	50	ND	ND	ND	ND	ND	ND
SURROGATE	Accept Limit%	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	79-126	97	87	89	94	122	104
Toluene-d8	79-121	102	109	124 m	95	117	113
Bromofluoro-benzene	71-131	88	83	115	94	85	120

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF × MDL).  
Surrogate injection concentration: 25 ug/L for all compounds.



# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland

Lab Job No.: UR402100  
Matrix: Soil

Date Reported: 02-27-2004  
Date Sampled: 02-17-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

Date ANALYZED		02-21-04	02-21-04	02-21-04	02-21-04	02-21-04	02-21-04
PREP METHOD		5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1	1
LAB SAMPLE I.D.		UR402100-46	UR402100-47	UR402100-48	UR402100-49	UR402100-50	UR402100-51
CLIENT SAMPLE I.D.		CB13-15	CB13-20	CB14-5	CB14-10	CB14-15	CB14-20
COMPOUND	MDL						
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND



**Southland Technical Services, Inc.**  
Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland  
Project Site: Sears Oakland  
Matrix: Soil  
Digestion Method: EPA 3050B  
Batch No.: 0220-M2

Lab Job No.: UR402100  
Date Sampled: 02-17-2004  
Date Received: 02-19-2004  
Date Digested: 02-19-2004  
Date Analyzed: 02-20-2004  
Date Reported: 02-27-2004

**EPA 7420 (Total Lead)**  
**Reporting Unit: mg/kg (ppm)**

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2.5
CB5-20	UR402100-21	ND	2.5
CB6-5	UR402100-22	ND	2.5
CB6-10	UR402100-23	ND	2.5
CB6-15	UR402100-24	2.8	2.5
CB6-20	UR402100-25	ND	2.5
CB7-5	UR402100-26	ND	2.5
CB7-10	UR402100-27	ND	2.5
CB7-15	UR402100-28	ND	2.5
CB7-20	UR402100-29	ND	2.5
CB8-5	UR402100-30	ND	2.5
CB8-10	UR402100-31	5.3	2.5
CB8-15	UR402100-32	ND	2.5
CB9-5	UR402100-33	ND	2.5
CB9-10	UR402100-34	2.8	2.5
CB9-15	UR402100-35	ND	2.5
CB9-20	UR402100-36	ND	2.5
CB10-5	UR402100-37	ND	2.5
CB10-10	UR402100-38	ND	2.5
CB10-15	UR402100-39	ND	2.5
CB11-5	UR402100-40	ND	2.5

ND: Not Detected (at the specified limit).



**Southland Technical Services, Inc.**  
Environmental Laboratories

Client: URS Corporation  
Project: Sears Oakland  
Project Site: Sears Oakland  
Matrix: Soil  
Digestion Method: EPA 3050B  
Batch No.: 0220-M3

Lab Job No.: UR402100  
Date Sampled: 02-17-2004  
Date Received: 02-19-2004  
Date Digested: 02-19-2004  
Date Analyzed: 02-20-2004  
Date Reported: 02-27-2004

**EPA 7420 (Total Lead)**  
Reporting Unit: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2.5
CB11-10	UR402100-41	4.2	2.5
CB11-15	UR402100-42	ND	2.5
CB12-10	UR402100-43	ND	2.5
CB13-5	UR402100-44	41	2.5
CB13-10	UR402100-45	ND	2.5
CB13-15	UR402100-46	ND	2.5
CB13-20	UR402100-47	ND	2.5
CB14-5	UR402100-48	ND	2.5
CB14-10	UR402100-49	ND	2.5
CB14-15	UR402100-50	ND	2.5
CB14-20	UR402100-51	ND	2.5

ND: Not Detected (at the specified limit).





**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 8015M (TPH)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Batch No: EB20-DS1

Lab Job No.: UR402100  
Lab Sample ID: UR402100-11  
Date Analyzed: 02-20-2004

**I. MS/MSD Report  
Unit: ppm**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-D	ND	200	205	212	102.5	106.0	3.4	30	70-130

**II. LCS Result  
Unit: ppm**

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
TPH-D	228	200	114.0	80-120

ND: Not Detected (at the specified limit)



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 8015M (TPH)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Batch No: EB20-DS2

Lab Job No.: UR402100  
Lab Sample ID: UR402100-36  
Date Analyzed: 02-20-2004

**I. MS/MSD Report  
Unit: ppm**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-D	ND	200	200	231	100.0	115.5	14.4	30	70-130

**II. LCS Result  
Unit: ppm**

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
TPH-D	227	200	113.5	80-120

ND: Not Detected (at the specified limit)



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 8015M (TPH)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Batch No: EB23-DS3

Lab Job No.: UR402100  
Lab Sample ID: ST40223-2  
Date Analyzed: 02-23-2004

**I. MS/MSD Report  
Unit: ppm**

Analyte	MB Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-D	ND	200	211	208	105.5	104.0	1.4	30	70-130

**II. LCS Result  
Unit: ppm**

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
TPH-D	192	200	96.0	80-120

ND: Not Detected (at the specified limit)



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 8015M (TPH)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Batch No.: CB19-GS2

Lab Job No.: UR402100  
Lab Sample ID: UR402100-18  
Date Analyzed: 02-19-2004

**I. MS/MSD Report  
Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-G	ND	5,000	4,740	3,100bp	94.8	62.0	41.8	30	70-130

**II. LCS/LCSD Result  
Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	LCS	LCSD	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-G	ND	1,000	1,070	1,010	107.0	101.0	5.8	30	70-130

bp: Bad purge. Matrix spike result out of control limit. LCS/LCSD Passed QC criteria.

ND: Not Detected (at the specified limit).



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 8015M (TPH)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Batch No.: AB20-GS1

Lab Job No.: UR402100  
Lab Sample ID: UR402100-37  
Date Analyzed: 02-20-2004

**I. MS/MSD Report  
Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-G	ND	5,000	5,280	3,920	105.6	78.4	29.6	30	70-130

**II. LCS Result  
Unit: ppb**

Compound	LCS Report Value	True Value	Rec.%	%Rec Accept. Limit
TPH-G	1,080	1,000	108.0	80-120

ND: Not Detected (at the specified limit).



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 8015M (TPH)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Batch No.: CB21-GS1

Lab Job No.: UR402100  
Lab Sample ID: UR402100-51  
Date Analyzed: 02-21-2004

**I. MS/MSD Report  
Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-G	ND	5,000	4,180	4,590	83.6	91.8	9.4	30	70-130

**II. LCS Result  
Unit: ppb**

Compound	LCS Report Value	True Value	Rec.%	%Rec Accept. Limit
TPH-G	1,080	1,000	108.0	80-120

ND: Not Detected (at the specified limit).



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 8260B (VOCs)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Batch No: 0219-VOCS2

Lab Job No.: UR402100  
Lab Sample ID: UR402100-18  
Date Analyzed: 02-19-2004

**I. MS/MSD Report  
Unit: ppb**

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	18.7	17.8	93.5	89.0	4.9	30	70-130
Benzene	ND	20	18.4	16.1	92.0	80.5	13.3	30	70-130
Trichloro-ethene	ND	20	20.4	18.6	102.0	93.0	9.2	30	70-130
Toluene	ND	20	19.3	18.3	96.5	91.5	5.3	30	70-130
Chlorobenzene	ND	20	20.4	19.5	102.0	97.5	4.5	30	70-130

**II. LCS Result  
Unit: ppb**

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	17.5	20.0	87.5	80-120
Benzene	21.7	20.0	108.5	80-120
Trichloro-ethene	21.8	20.0	109.0	80-120
Toluene	18.9	20.0	94.5	80-120
Chlorobenzene	21.2	20.0	106.0	80-120

ND: Not Detected.



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 8260B (VOCs)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Batch No: 0220-VOCS1

Lab Job No.: UR402100  
Lab Sample ID: UR402100-25  
Date Analyzed: 02-20-2004

**I. MS/MSD Report  
Unit: ppb**

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	18.4	20.7	92.0	103.5	11.8	30	70-130
Benzene	ND	20	18.9	20.6	94.5	103.0	8.6	30	70-130
Trichloro-ethene	ND	20	21.8	22.6	109.0	113.0	3.6	30	70-130
Toluene	ND	20	22.8	20.5	114.0	102.5	10.6	30	70-130
Chlorobenzene	ND	20	20.9	21.2	104.5	106.0	1.4	30	70-130

**II. LCS Result  
Unit: ppb**

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	16.1	20.0	80.5	80-120
Benzene	16.9	20.0	84.5	80-120
Trichloro-ethene	17.4	20.0	87.0	80-120
Toluene	18.5	20.0	92.5	80-120
Chlorobenzene	20.3	20.0	101.5	80-120

ND: Not Detected.





**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 8260B (VOCs)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Batch No: 0220-VOCS2

Lab Job No.: UR402100  
Lab Sample ID: UR402100-50  
Date Analyzed: 02-21-2004

**I. MS/MSD Report  
Unit: ppb**

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	16.4	19.1	82.0	95.5	15.2	30	70-130
Benzene	ND	20	16.3	16.2	81.5	81.0	0.6	30	70-130
Trichloro-ethene	ND	20	16.4	17.6	82.0	88.0	7.1	30	70-130
Toluene	ND	20	18.3	18.0	91.5	90.0	1.7	30	70-130
Chlorobenzene	ND	20	19.3	19.4	96.5	97.0	0.5	30	70-130

**II. LCS Result  
Unit: ppb**

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	16.1	20.0	80.5	80-120
Benzene	16.9	20.0	84.5	80-120
Trichloro-ethene	17.4	20.0	87.0	80-120
Toluene	18.5	20.0	92.5	80-120
Chlorobenzene	20.3	20.0	101.5	80-120

ND: Not Detected.



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 7420 (Total Lead)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Analyte: Lead

Lab Job No.: UR402100  
Lab Sample ID: LCS  
Date Analyzed: 02-20-2004

**LCS/LCSD Report  
Unit: ppm**

Batch No.	MB Conc.	Spike Conc.	LCS	LCSD	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
0220-M1	ND	3.75	3.93	3.88	104.8	103.5	1.2	30	70-130

ND: Not Detected



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 7420 (Total Lead)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Analyte: Lead

Lab Job No.: UR402100  
Lab Sample ID: UR402100-21  
Date Analyzed: 02-20-2004

**LCS/LCSD Report  
Unit: ppm**

Batch No.	MB Conc.	Spike Conc.	MS	MSD	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
0220-M2	ND	40	48.6	51.5	121.5	128.8	5.8	30	70-130

ND: Not Detected



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 7420 (Total Lead)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Analyte: Lead

Lab Job No.: UR402100  
Lab Sample ID: UR402100-51  
Date Analyzed: 02-20-2004

**LCS/LCSD Report  
Unit: ppm**

Batch No.	MB Conc.	Spike Conc.	MS	MSD	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
0220-M2	ND	40	48.7	56.7	121.8	141.8	15.2	30	70-130

ND: Not Detected



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-27-2004

**EPA 7420 (Total Lead)  
Batch QA/QC Report**

Client: URS Corporation  
Project: Sears Oakland  
Matrix: Soil  
Analyte: Lead

Lab Job No.: UR402100  
Lab Sample ID: LCS  
Date Analyzed: 02-20-2004

**LCS/LCSD Report  
Unit: ppm**

Batch No.	MB Conc.	Spike Conc.	LCS	LCSD	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
0220-M3	ND	3.75	3.99	4.01	106.4	106.9	0.5	30	70-130

ND: Not Detected

**APPENDIX E**

**URS DATA VALIDATION REPORT FOR SOIL**

### Level III Data Validation Summary

**PROJECT:** Sears Oakland 1058B  
**LABORATORY:** Southland Technical Services, Inc. (STS)  
**MATRIX:** Soil  
**LAB PROJECT #:** UR402100  
**SAMPLES:** See table below

Field ID	Lab ID	TPH-Gasoline	TPH-Diesel, TPH-Oil	VOCs (including Fuel Oxygenates)	Lead
CB1-5	UR402100-1	X	X	X	X
CB1-10	UR402100-2	X	X	X	X
CB1-15	UR402100-3	X	X	X	X
CB1-20	UR402100-4	X	X	X	X
CB2-5	UR402100-5	X	X	X	X
CB2-10	UR402100-6	X	X	X	X
CB2-15	UR402100-7	X	X	X	X
CB2-20	UR402100-8	X	X	X	X
CB2-25	UR402100-9	X	X	X	X
CB3-5	UR402100-10	X	X	X	X
CB3-10	UR402100-11	X	X	X	X
CB3-15	UR402100-12	X	X	X	X
CB4-5	UR402100-13	X	X	X	X
CB4-10	UR402100-14	X	X	X	X
CB4-15	UR402100-15	X	X	X	X
CB4-20	UR402100-16	X	X	X	X
CB4-25	UR402100-17	X	X	X	X
CB5-5	UR402100-18	X	X	X	X
CB5-10	UR402100-19	X	X	X	X
CB5-15	UR402100-20	X	X	X	X
CB5-20	UR402100-21	X	X	X	X
CB6-5	UR402100-22	X	X	X	X
CB6-10	UR402100-23	X	X	X	X
CB6-15	UR402100-24	X	X	X	X
CB6-20	UR402100-25	X	X	X	X
CB7-5	UR402100-26	X	X	X	X
CB7-10	UR402100-27	X	X	X	X
CB7-15	UR402100-28	X	X	X	X
CB7-20	UR402100-29	X	X	X	X
CB8-5	UR402100-30	X	X	X	X
CB8-10	UR402100-31	X	X	X	X
CB8-15	UR402100-32	X	X	X	X
CB9-5	UR402100-33	X	X	X	X
CB9-10	UR402100-34	X	X	X	X
CB9-15	UR402100-35	X	X	X	X
CB9-20	UR402100-36	X	X	X	X
CB10-5	UR402100-37	X	X	X	X
CB10-10	UR402100-38	X	X	X	X
CB10-15	UR402100-39	X	X	X	X
CB11-5	UR402100-40	X	X	X	X
CB11-10	UR402100-41	X	X	X	X
CB11-15	UR402100-42	X	X	X	X
CB12-10	UR402100-43	X	X	X	X

CB13-5	UR402100-44	X	X	X	X
CB13-10	UR402100-45	X	X	X	X
CB13-15	UR402100-46	X	X	X	X
CB13-20	UR402100-47	X	X	X	X
CB14-5	UR402100-48	X	X	X	X
CB14-10	UR402100-49	X	X	X	X
CB14-15	UR402100-50	X	X	X	X
CB14-20	UR402100-51	X	X	X	X

Date Sampled: 2/17, 18/04

TPH-Gasoline= Total petroleum hydrocarbon – gasoline range (C4-C12), TPH-Diesel= Total petroleum hydrocarbon – diesel range (C13-C23)

TPH-Oil= Total petroleum hydrocarbon – oil range (C24-C40) VOCs = Volatile organic compounds

Fuel Oxygenates = t-butyl alcohol (TBA), t-amyl methyl ether (TAME), di - isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), Methyl tertiary butyl ether (MTBE).

STS is certified by California Department of Health Services, Environmental Laboratory Accreditation Program (ELAP Certificate Number 1986).

### DATA REVIEW MATRIX

QC Parameter	TPH-Gasoline EPA8015M	TPH-Diesel, and TPH-Oil EPA8015M	VOCs EPA5030/8260B	Lead EPA 7420
Chain-of-custody (COC)	✓	✓	✓	✓
Sample Receipt	✓	✓	✓	✓
Holding Times	✓	✓	✓	✓
Method Blank	✓	✓	✓	✓
Surrogate Recovery	(1)	(3)	(5)	NA
Laboratory Control Sample	✓	✓	✓	✓
Matrix Spike	(2)	✓(4)	✓(6)	(7)
Duplicate or Spike Duplicate	(2)	✓(4)	✓(6)	(7)

✓ = Quality control evaluation criteria met

NA = Not Applicable or not analyzed

**Notes:**

- The surrogate recovery result for TPH-gasoline was outside of laboratory acceptance criterion for samples CB3-5, and CB3-15. Consequently, the results for TPH-gasoline for these samples were qualified as estimated (J/UJ).
- MS/MSDs were conducted on samples CB5-5, CB10-5, and CB14-20. All average MS/MSD recoveries were within laboratory's acceptance criterion. In addition, the relative percent differences (RPD) between the MS/MSDs were within laboratory's acceptance criterion with the following exception.

Sample	Parameter	RPD	Qualified Samples	Qualifier
CB5-5	Gasoline	41.8%	CB1-5, CB1-10, CB1-15, CB1-20, CB2-5, CB2-10, CB2-15, CB2-20, CB2-25, CB3-5, CB3-10, CB3-15, CB4-5, CB4-10, CB4-15, CB4-20, CB4-25, CB5-5, CB5-10, CB5-15	UJ /J

- The surrogate recovery result for TPH-diesel and TPH-oil was high for sample CB5-10. Consequently, the results for TPH-diesel and TPH-oil for this sample were qualified as estimated (J).
- MS/MSDs were conducted on samples CB3-10, and CB9-20. All results were within acceptance criterion.
- All surrogate compounds recoveries were within the laboratory's statistically determined acceptance ranges with the following exceptions.

Sample	Surrogate	% Recovery	Sample	Surrogate	% Recovery
CB2-5	Toluene-d8	125% <sup>1</sup>	CB8-10	Toluene-d8	127% <sup>1</sup>
CB4-10	Dibromofluoro-methane	138% <sup>1</sup>	CB11-15	Toluene-d8	124% <sup>1</sup>
CB7-15	Dibromofluoro-methane	78% <sup>2</sup>			

- Data qualification was not considered necessary because the VOC results associated with this surrogate were reported as non-detect.
- Data qualification was not considered necessary because the surrogate recovery was only slightly lower than the acceptance criterion.



6. MS/MSDs were conducted on samples CB5-5, CB6-20, and CB14-15. All results were within acceptance criterion.
7. MS/MSDs were conducted on samples CB5-20, and CB14-20. All results were within acceptance criterion with the following exceptions.

Sample	Parameter	MS/MSD Average Recovery	Qualified Samples	Qualifier
CB14-20	Lead	131.8%	CB11-10, CB13-5	J

**Summary:** Based on this limited validation covering the QC parameters listed in the table above, these data as qualified are considered to be useable for meeting project objectives. However, the data user must evaluate the ultimate usability of the data based on the reporting limits obtained. The table below lists the detection limits obtained for undiluted samples.

Analyte	Detection Limits Obtained
Lead	2.5
TPH-Diesel	5
TPH-Oil	50
TPH-Gasoline	0.5
VOCs	0.002 to 0.05
Ethanol	0.5
MTBE	0.005
TBA	0.05
Other Oxygenates	0.005

Soil units are milligrams per kilogram (mg /kg).

Seven samples (CB3-5, CB4-10, CB5-10, CB8-5, CB8-10, CB10-10, CB13-10) required dilution for the 8260B analysis in order to quantitative detected target analytes. For these samples, there were also non-detect VOC results with elevated reporting limits. The data user must evaluate the utility of non-detect VOC results with elevated reporting limits.

As part of the analytical data validation, data may be qualified in accordance with standard criteria for data quality and usability. The qualifier codes used in this process include the following:

- “J” The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- “U” The analyte was analyzed for, but was not detected above the reported detection limit.
- “UJ” The analyte was not detected above the reported detection limit. However, the reported detection limit is approximate and may or may not represent the actual limit of detection necessary to accurately and precisely measure the analyte in the sample.
- “R” The data are unusable. The presence or absence of the analyte cannot be verified.

**APPENDIX F**

**LABORATORY REPORT AND CHAIN OF CUSTODY DOCUMENTS FOR  
GROUNDWATER**



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-20-2004

Mr. Scott Rowlands  
URS Corporation  
2020 E. First Street, Suite 400  
Santa Ana, CA 92705

Project: 29863494.04012/Sears Oakland 1058  
Project Site: 2600 Telegraph Ave., Oakland, CA  
Sample Date: 02-12-2004  
Lab Job No.: UR402084

Dear Mr. Rowlands:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 02-13-2004 and analyzed for the following parameters:

EPA 8015M (Gasoline)  
EPA 8015M (Diesel & Oil)  
EPA 8260B (VOCs, Ethanol & Oxygenates by GC/MS)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled at 4°C, intact) and with a chain of custody record attached.

STS Environmental Laboratory is certified by CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph. D.  
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-20-2004

Client: URS Corporation  
Project: 29863494.04012/Sears Oakland 1058  
Project Site: 2600 Telegraph Ave., Oakland, CA  
Matrix: Water

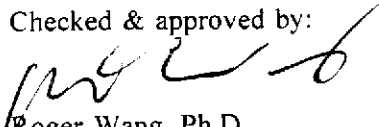
Lab Job No.: UR402084  
Date Sampled: 02-12-2004  
Date Received: 02-13-2004

**EPA 8015M (Gasoline, Diesel & Oil)**  
Reporting Unit:  $\mu\text{g/L}$  (ppb)

Date of Analysis for TPH (Gasoline)		02-17-04	02-17-04	02-17-04	02-17-04	02-17-04
Preparation Method for TPH (Gasoline)		5030	5030	5030	5030	5030
Date of Analysis for TPH (D & O)		02-19-04	02-19-04	02-19-04	02-19-04	02-19-04
Date of Extraction for TPH (D & O)		02-17-04	02-17-04	02-17-04	02-17-04	02-17-04
Preparation Method for TPH (D & O)		3510C	3510C	3510C	3510C	3510C
LAB SAMPLE ID.			UR402084-1	UR402084-2	UR402084-3	UR402084-4
CLIENT SAMPLE ID.			MW-1	MW-2	MW-3	MW-4
Analyte	MDL	MB				
TPH-Gasoline (C4 - C12)	50	ND	74	ND	687	ND
TPH-Diesel (C13 - C23)	500	ND	ND	ND	ND	ND
TPH-Oil (C24 - C40)	2000	ND	ND	ND	ND	ND
Surrogate	Spk Conc.	ACP%	MB %RC	%RC	%RC	%RC
BFB (for TPH-Gasoline)	20 ppb	70-130	75	79	75	78
Diethyl Phthalate (for TPH-D & O)	5 ppm	70-130	80	104	82	78

SPK Conc.=Spiking Concentration; ACP%=Acceptable Range of Percent; %RC=% Recovery  
MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected(Below MDL); NA=Not Analyzed

Checked & approved by:

  
Roger Wang, Ph.D.  
Laboratory Director.



# Southland Technical Services, Inc.

Environmental Laboratories

02-20-2004

Client: URS Corporation  
 Project: 29863494.04012/Sears Oakland 1058  
 Project Site: 2600 Telegraph Ave., Oakland, CA  
 Matrix: Water

Lab Job No.: UR402084  
 Date Sampled: 02-12-2004  
 Date Received: 02-13-2004

**EPA 8015M (Gasoline, Diesel & Oil)**  
**Reporting Unit: µg/L (ppb)**

<b>Date of Analysis for TPH (Gasoline)</b>		02-17-04	02-17-04	02-17-04	02-17-04	02-17-04
<b>Preparation Method for TPH (Gasoline)</b>		5030	5030	5030	5030	5030
<b>Date of Analysis for TPH (D &amp; O)</b>		02-19-04	02-19-04	02-19-04	02-19-04	02-19-04
<b>Date of Extraction for TPH (D &amp; O)</b>		02-17-04	02-17-04	02-17-04	02-17-04	02-17-04
<b>Preparation Method for TPH (D &amp; O)</b>		3510C	3510C	3510C	3510C	3510C
<b>LAB SAMPLE I.D.</b>		UR402084-5	UR402084-6	UR402084-7	UR402084-8	UR402084-9
<b>CLIENT SAMPLE I.D.</b>		MW-5	MW-6	MW-7	MW-8	MW-9
<b>Analyte</b>	<b>MDL</b>					
TPH-Gasoline (C4 - C12)	50	ND	ND	ND	ND	54
TPH-Diesel (C13 - C23)	500	ND	ND	ND	ND	ND
TPH-Oil (C24 - C40)	2000	ND	ND	ND	ND	ND
<b>Surrogate</b>	<b>Spk Conc.</b>	<b>ACP%</b>	<b>%RC</b>	<b>%RC</b>	<b>%RC</b>	<b>%RC</b>
BFB (for TPH-Gasoline)	20 ppb	70-130	75	77	77	78
Diethyl Phthalate (for TPH-D & O)	5 ppm	70-130	78	78	80	80

SPK Conc.=Spiking Concentration; ACP%=Acceptable Range of Percent; %RC=% Recovery  
 MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected(Below MDL); NA=Not Analyzed.

Checked & approved by:

Roger Wang, Ph.D.  
 Laboratory Director.



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-20-2004

Client: URS Corporation  
Project: 29863494.04012/Sears Oakland 1058  
Project Site: 2600 Telegraph Ave., Oakland, CA  
Matrix: Water

Lab Job No.: UR402084  
Date Sampled: 02-12-2004  
Date Received: 02-13-2004

**EPA 8015M (Gasoline, Diesel & Oil)**  
**Reporting Unit: µg/L (ppb)**

Date of Analysis for TPH (Gasoline)		02-17-04	02-17-04	02-17-04	02-17-04	
Preparation Method for TPH (Gasoline)		5030	5030	5030	5030	
Date of Analysis for TPH (D & O)		02-19-04	02-19-04	02-19-04		
Date of Extraction for TPH (D & O)		02-17-04	02-17-04	02-17-04		
Preparation Method for TPH (D & O)		3510C	3510C	3510C		
LAB SAMPLE LD.		UR402084-10	UR402084-11	UR402084-13	UR402084-12	
CLIENT SAMPLE LD.		EW-1	DUP-1	EB-1	TB-1	
Analyte	MDL					
TPH-Gasoline (C4 - C12)	50	766	833	ND	ND	
TPH-Diesel (C13 - C23)	500	ND	ND	NA	NA	
TPH-Oil (C24 - C40)	2000	ND	ND	NA	NA	
Surrogate	Spk Conc.	ACP%	%RC	%RC	%RC	%RC
BFB (for TPH-Gasoline)	20 ppb	70-130	80	80	77	78
Diocetyl Phthalate (for TPH-D & O)	5 ppm	70-130	77	80	78	

SPK Conc.=Spiking Concentration; ACP%=Acceptable Range of Percent; %RC=% Recovery  
MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected(Below MDL); NA=Not Analyzed.

Checked & approved by:

Roger Wang, Ph.D.  
Laboratory Director.



# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR402084

Date Reported: 02-20-2004

Project: 29863494.04012/Sears Oakland 1058 Matrix: Water

Date Sampled: 02-12-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/L(ppb)

Date ANALYZED		02-17-04	02-17-04	02-17-04	02-17-04	02-17-04	02-17-04
PREPARATION METHOD		5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1	1
LAB SAMPLE I.D.			UR402084-1	UR402084-2	UR402084-3	UR402084-4	UR402084-5
CLIENT SAMPLE I.D.			MW-1	MW-2	MW-3	MW-4	MW-5
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC or Ethylene Dichloride)	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND	ND
Trichloroethene	2.5	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	1	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2.5	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR402084

Date Reported: 02-20-2004

Project: 29863494.04012/Sears Oakland 1058

Matrix: Water

Date Sampled: 02-12-2004

### EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb

COMPOUND	MDL	MB	MW-1	MW-2	MW-3	MW-4	MW-5	
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	
Ethylbenzene	1	ND	ND	ND	ND	ND	ND	
Total Xylenes	2	ND	ND	ND	ND	ND	ND	
Styrene	5	ND	ND	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND	
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND	
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND	
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	
Sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND	
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND	
Naphthalene	5	ND	ND	ND	ND	ND	ND	
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	
Acetone	25	ND	ND	ND	ND	ND	ND	
2-Butanone (MEK)	25	ND	ND	ND	ND	ND	ND	
Carbon disulfide	25	ND	ND	ND	ND	ND	ND	
4-Methyl-2-pentanone	25	ND	ND	ND	ND	ND	ND	
2-Hexanone	25	ND	ND	ND	ND	ND	ND	
Ethanol	500	ND	ND	ND	ND	ND	ND	
Vinyl Acetate	25	ND	ND	ND	ND	ND	ND	
MTBE	2	ND	ND	ND	ND	2.4	ND	
ETBE	2	ND	ND	ND	ND	ND	ND	
DIPE	2	ND	ND	ND	ND	ND	ND	
TAME	2	ND	ND	ND	ND	ND	ND	
t-Butyl Alcohol	10	ND	ND	ND	ND	ND	ND	
SURROGATE	SPK Conc.	%RC	%RC	%RC	%RC	%RC	%RC	Accept Limit%
Dibromofluoro-methane	25	96	98	104	98	104	101	79-126
Toluene-d8	25	100	99	99	101	101	96	79-121
Bromofluoro-benzene	25	86	88	91	88	84	89	71-131

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF x MDL).





# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR402084

Date Reported: 02-20-2004

Project: 29863494.04012/Sears Oakland 1058 Matrix: Water

Date Sampled: 02-12-2004

**EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/L(ppb)**

Date ANALYZED		02-17-04	02-17-04	02-17-04	02-17-04	02-17-04		
PREPARATION METHOD		5030	5030	5030	5030	5030		
DILUTION FACTOR		1	1	1	1	1		
LAB SAMPLE I.D.			UR402084-6	UR402084-7	UR402084-8	UR402084-9		
CLIENT SAMPLE I.D.			MW-6	MW-7	MW-8	MW-9		
COMPOUND	MDL	MB						
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND		
Chloromethane	5	ND	ND	ND	ND	ND		
Vinyl Chloride	2	ND	ND	ND	ND	ND		
Bromomethane	5	ND	ND	ND	ND	ND		
Chloroethane	5	ND	ND	ND	ND	ND		
Trichlorofluoromethane	5	ND	ND	ND	ND	ND		
1,1-Dichloroethene	5	ND	ND	ND	ND	ND		
Iodomethane	5	ND	ND	ND	ND	ND		
Methylene Chloride	5	ND	ND	ND	ND	ND		
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND		
1,1-Dichloroethane	5	ND	ND	ND	ND	ND		
2,2-Dichloropropane	5	ND	ND	ND	ND	ND		
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND		
Bromochloromethane	5	ND	ND	ND	ND	ND		
Chloroform	5	ND	ND	ND	ND	ND		
1,2-Dichloroethane (EDC or Ethylene Dichloride)	5	ND	ND	ND	ND	ND		
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND		
Carbon tetrachloride	5	ND	ND	ND	ND	ND		
1,1-Dichloropropene	5	ND	ND	ND	ND	ND		
Benzene	1	ND	ND	ND	ND	ND		
Trichloroethene	2.5	ND	ND	ND	ND	ND		
1,2-Dichloropropane	5	ND	ND	ND	ND	ND		
Bromodichloromethane	5	ND	ND	ND	ND	ND		
Dibromomethane	5	ND	ND	ND	ND	ND		
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND		
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND		
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND		
1,3-Dichloropropane	5	ND	ND	ND	ND	ND		
Dibromochloromethane	5	ND	ND	ND	ND	ND		
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND		
Bromoform	5	ND	ND	ND	ND	ND		
Isopropylbenzene	5	ND	ND	ND	ND	ND		
Bromobenzene	5	ND	ND	ND	ND	ND		
Toluene	1	ND	ND	ND	ND	ND		
Tetrachloroethene	2.5	ND	ND	ND	ND	ND		
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND		



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR402084

Date Reported: 02-20-2004

Project: 29863494.04012/Sears Oakland 1058 Matrix: Water

Date Sampled: 02-12-2004

**EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb**

COMPOUND	MDL	MB	MW-6	MW-7	MW-8	MW-9		
Chlorobenzene	5	ND	ND	ND	ND	ND		
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND		
Ethylbenzene	1	ND	ND	ND	ND	ND		
Total Xylenes	2	ND	ND	ND	ND	ND		
Styrene	5	ND	ND	ND	ND	ND		
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND		
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND		
n-Propylbenzene	5	ND	ND	ND	ND	ND		
2-Chlorotoluene	5	ND	ND	ND	ND	ND		
4-Chlorotoluene	5	ND	ND	ND	ND	ND		
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND		
tert-Butylbenzene	5	ND	ND	ND	ND	ND		
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND		
Sec-Butylbenzene	5	ND	ND	ND	ND	ND		
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND		
p-Isopropyltoluene	5	ND	ND	ND	ND	ND		
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND		
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND		
n-Butylbenzene	5	ND	ND	ND	ND	ND		
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND		
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND		
Hexachlorobutadiene	5	ND	ND	ND	ND	ND		
Naphthalene	5	ND	ND	ND	ND	ND		
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND		
Acetone	25	ND	ND	ND	ND	ND		
2-Butanone (MEK)	25	ND	ND	ND	ND	ND		
Carbon disulfide	25	ND	ND	ND	ND	ND		
4-Methyl-2-pentanone	25	ND	ND	ND	ND	ND		
2-Hexanone	25	ND	ND	ND	ND	ND		
Ethanol	500	ND	ND	ND	ND	ND		
Vinyl Acetate	25	ND	ND	ND	ND	ND		
MTBE	2	ND	ND	ND	ND	ND		
ETBE	2	ND	ND	ND	ND	ND		
DIPE	2	ND	ND	ND	ND	ND		
TAME	2	ND	ND	ND	ND	ND		
t-Butyl Alcohol	10	ND	ND	ND	ND	ND		
SURROGATE	SPK Conc.	%RC	%RC	%RC	%RC	%RC		Accept Limit%
Dibromofluoro-methane	25	96	104	106	104	103		79-126
Toluene-d8	25	100	99	97	92	98		79-121
Bromofluoro-benzene	25	86	84	81	84	87		71-131

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF x MDL). \* Surrogate recovery out of QC range.



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR402084

Date Reported: 02-20-2004

Project: 29863494.04012/Sears Oakland 1058 Matrix: Water

Date Sampled: 02-12-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/L(ppb)

Date ANALYZED		02-17-04	02-17-04	02-17-04	02-17-04	02-17-04
PREPARATION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1
LAB SAMPLE I.D.			UR402084-10	UR402084-11	UR402084-13	UR402084-12
CLIENT SAMPLE I.D.			EW-1	DUP-1	EB-1	TB-1
COMPOUND	MDL	MB				
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC or Ethylene Dichloride)	5	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND
Trichloroethene	2.5	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND
Toluene	1	ND	ND	ND	ND	ND
Tetrachloroethene	2.5	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

## Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR402084

Date Reported: 02-20-2004

Project: 29863494.04012/Sears Oakland 1058

Matrix: Water

Date Sampled: 02-12-2004

### EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb

COMPOUND	MDL	MB	EW-1	DUP-1	EB-1	TB-1	
Chlorobenzene	5	ND	ND	ND	ND	ND	
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	
Ethylbenzene	1	ND	ND	ND	ND	ND	
Total Xylenes	2	ND	ND	ND	ND	ND	
Styrene	5	ND	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	
n-Propylbenzene	5	ND	ND	ND	ND	ND	
2-Chlorotoluene	5	ND	ND	ND	ND	ND	
4-Chlorotoluene	5	ND	ND	ND	ND	ND	
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	
tert-Butylbenzene	5	ND	ND	ND	ND	ND	
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	
Sec-Butylbenzene	5	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	
n-Butylbenzene	5	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	
Naphthalene	5	ND	ND	ND	ND	ND	
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	
Acetone	25	ND	ND	ND	ND	ND	
2-Butanone (MEK)	25	ND	ND	ND	ND	ND	
Carbon disulfide	25	ND	ND	ND	ND	ND	
4-Methyl-2-pentanone	25	ND	ND	ND	ND	ND	
2-Hexanone	25	ND	ND	ND	ND	ND	
Ethanol	500	ND	ND	ND	ND	ND	
Vinyl Acetate	25	ND	ND	ND	ND	ND	
MTBE	2	ND	ND	ND	ND	ND	
ETBE	2	ND	ND	ND	ND	ND	
DIPE	2	ND	ND	ND	ND	ND	
TAME	2	ND	ND	ND	ND	ND	
t-Butyl Alcohol	10	ND	ND	ND	ND	ND	
SURROGATE	SPK Conc.	%RC	%RC	%RC	%RC	%RC	Accept Limit%
Dibromofluoro-methane	25	96	92	99	107	104	79-126
Toluene-d8	25	100	98	93	97	97	79-121
Bromofluoro-benzene	25	86	83	81	80	83	71-131

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF x MDL). \* Result from a higher dilution analysis.



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-20-2004

**EPA 8015M (TPH)  
Batch QA/QC Report**

Client: URS Corporation  
Project: 29863494.04012/Sears Oakland 1058  
Matrix: Water  
Batch No.: EB19-DW1

Lab Job No.: UR402084  
Lab Sample ID: ST402019-1  
Date Analyzed: 02-19-2004

**I. MS/MSD Report  
Unit: ppm**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-d	ND	20	25.7	23.1	128.5	115.5	10.7	30	70-130

**II. LCS Result  
Unit: ppm**

Analyte	LCS Report Value	True Value	Rec.%	%Rec Accept. Limit
TPH-d	23.1	20	115.5	80-120

ND: Not Detected (at the specified limit).



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-20-2004

**EPA 8015M (TPH)  
Batch QA/QC Report**

Client: URS Corporation  
Project: 29863494.04012/Sears Oakland 1058  
Matrix: Water  
Batch No.: AB17-GW1

Lab Job No.: UR402084  
Lab Sample ID: UR402084-1  
Date Analyzed: 02-17-2004

**I. MS/MSD Report  
Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-G	74	1000	1,170	1,180	108.9	109.9	0.9	30	70-130

**II. LCS Result  
Unit: ppb**

Analyte	LCS Report Value	True Value	Rec.%	%Rec Accept. Limit
TPH-G	1,130	1000	113.0	80-120

ND: Not Detected (at the specified limit).



**Southland Technical Services, Inc.**  
Environmental Laboratories

02-20-2004

**EPA 8260B  
Batch QA/QC Report**

Client: URS Corporation  
Project: 29863494.04012/Sears Oakland 1058  
Matrix: Water  
Batch No: 0217-VOAW

Lab Job No.: UR402084  
Lab Sample ID: UR402084-1  
Date Analyzed: 02-17-2004

**I. MS/MSD Report  
Unit: ppb**

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	18.6	16.9	93.0	84.5	9.6	30	70-130
Benzene	ND	20	18.6	18.9	93.0	94.5	1.6	30	70-130
Trichloro-ethene	ND	20	17.9	17.6	89.5	88.0	1.7	30	70-130
Toluene	ND	20	17.6	18.3	88.0	91.5	3.9	30	70-130
Chlorobenzene	ND	20	18.8	19.6	94.0	98.0	4.2	30	70-130

**II. LCS Result  
Unit: ppb**

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	16.8	20	84.0	80-120
Benzene	17.2	20	86.0	80-120
Trichloro-ethene	17.3	20	86.5	80-120
Toluene	17.5	20	87.5	80-120
Chlorobenzene	18.8	20	94.0	80-120

ND: Not Detected (at the specified limit)

# URS CORPORATION

2020 East First Street, Suite 400  
Santa Ana, CA 92705  
(714) 835-6886  
FAX (714) 667-7147

## CHAIN OF CUSTODY RECORD

Date: 02/12/04

Page 1 of 2

UR 402084

Data Requested in GISKey Format

Sample Name:	Sample Date:	Sample Time:	Preserved:	Matrix:	Container Type:	# of Cont.:	Requested Analyses:	HOLD	Special Instructions:
ST5	2/11/04	0800	(Y)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	2	82603 VOCS, MTBE, BTEX, TPHE, D, O 0015MTPH	X	Please include in 8260 analysis DIB, ETBE, Ethanol, TAME, TBA, EDB, EDC/CAH PMU questions
TB-1 402084-12	2/11/04	0800	(Y) (N)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	4			
MW-1 -1	2/11/04	1009	(Y) (N)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	4			
MW-5 -5	2/11/04	1105	(Y) (N)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	4			
MW-2 -2	2/11/04	1155	(Y) (N)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	4			
MW-4 -4	2/11/04	1233	(Y) (N)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	4			
MW-8 -8	2/11/04	1315	(Y) (N)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	4			
MW-7 -7	2/11/04	1404	(Y) (N)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	4			
MW-6 -6	2/11/04	1456	(Y) (N)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	4			
MW-9 -9	2/11/04	1542	(Y) (N)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	4			
MW-3 -3	2/11/04	1626	(Y) (N)	S G	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	4			

Relinquished by: [Signature] Date: 2/13/04 Received By: [Signature] Date/Time: 2/13/04 2:30 pm

Turnaround Time: (Check)  
Same Day: \_\_\_\_\_ 72 Hour: \_\_\_\_\_  
24 Hour: \_\_\_\_\_ 5 Day: \_\_\_\_\_  
48 Hour: \_\_\_\_\_ Standard: X

Lab Use Only  
Cooler Temperature: 4°C  
\*Record upon arrival

# URS



# URS CORPORATION

2020 East First Street, Suite 400  
Santa Ana, CA 92705  
(714) 835-6886  
FAX (714) 667-7147

## CHAIN OF CUSTODY RECORD

Date: 02/12/04

Page 2 of 2

UR 402084

Data Requested in GISKey Format

Fuel Oil  
8260B VOLS  
7015 MIPHG  
TPHD, O

Lab Name: <u>STS</u>		URS Project/PO Number: <u>29863494.04012</u>			Requested Analyses:										Special Instructions:						
Client Name/Project Name/Location: <u>Seas Oakland #1058</u>		GeoTracker Information: <u>NA</u>			HOLD																
URS Project Manager: <u>Scott Rowlands</u>		EHP Reporting: <input type="checkbox"/> N Global ID: <u>NA</u>																			
Sampler Name and Signature: <u>Jordan Mandel</u>		COELT Log Number: <u>NA</u>																			
Sample Name:	Sample Date:	Sample Time:	Preserved:	Matrix:	Container Type:	# of Cont.:															
<u>EW-1402084-10</u>	<u>2/11/04</u>	<u>1707</u>	<input checked="" type="checkbox"/>	<u>S</u> <u>L</u> <u>G</u>	<u>Acetate SS. Brass Jar Encore</u> <u>ml Amb. Plas. Glass VOA</u>	<u>4</u>	<u>X</u>	<u>X</u>	<u>X</u>												
<u>DUP-1</u>	<u>-11</u>	<u>2/11/04</u>	<input checked="" type="checkbox"/>	<u>S</u> <u>L</u> <u>G</u>	<u>Acetate SS. Brass Jar Encore</u> <u>ml Amb. Plas. Glass VOA</u>	<u>4</u>	<u>X</u>	<u>X</u>	<u>X</u>												
<u>EB-1</u>	<u>-13</u>	<u>2/11/04</u>	<input checked="" type="checkbox"/>	<u>S</u> <u>L</u> <u>G</u>	<u>Acetate SS. Brass Jar Encore</u> <u>ml Amb. Plas. Glass VOA</u>	<u>3</u>	<u>X</u>														
<del>Y N Y N Y N Y N Y N Y N</del>																					
<del>Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA</del>																					
<del>Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA</del>																					
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<del>Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA</del>																					

2/13/04  
R W

Relinquished by: [Signature] Date: 2/13/04

Received By: MSW STS Date/Time: 2/13/04 2:30 PM

Turnaround Time: (Check)  
Same Day: \_\_\_\_\_ 72 Hour: \_\_\_\_\_  
24 Hour: \_\_\_\_\_ 5 Day: \_\_\_\_\_  
48 Hour: \_\_\_\_\_ Standard: \_\_\_\_\_

Lab Use Only  
Cooler Temperature: 4°C  
\*Record upon arrival



**APPENDIX G**

**URS DATA VALIDATION REPORT FOR GROUNDWATER**

### Level III Data Validation Summary

**PROJECT:** Sears Oakland 1058  
**LABORATORY:** Southland Technical Services, Inc. (STS)  
**MATRIX:** Water  
**LAB PROJECT #:** UR402084  
**SAMPLES:** See table below

Field ID	QC Designations	Lab ID	TPH-Gasoline	TPH-Diesel, TPH-Oil	VOCs (including Fuel Oxygenates)
TB-1	Trip blank	UR402084-12	X		X
MW-1		UR402084-1	X	X	X
MW-5		UR402084-5	X	X	X
MW-2		UR402084-2	X	X	X
MW-4		UR402084-4	X	X	X
MW-8		UR402084-8	X	X	X
MW-7		UR402084-7	X	X	X
MW-6		UR402084-6	X	X	X
MW-9		UR402084-9	X	X	X
MW-3		UR402084-3	X	X	X
EW-1		UR402084-10	X	X	X
DUP-1	Field duplicate of EW-1	UR402084-11	X	X	X
EB-1	Equipment blank	UR402084-13	X		X

Date Sampled: 2/11/04

TPH-Gasoline= Total petroleum hydrocarbon – gasoline range (C4-C12), TPH-Diesel= Total petroleum hydrocarbon – diesel range (C13-C23)

TPH-Oil= Total petroleum hydrocarbon – oil range (C24-C40) VOCs = Volatile organic compounds

Fuel Oxygenates = t-butyl alcohol (TBA), t-amyl methyl ether (TAME), di - isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), Methyl tertiary butyl ether (MTBE).

STS is certified by California Department of Health Services, Environmental Laboratory Accreditation Program (ELAP Certificate Number 1986).

### DATA REVIEW MATRIX

QC Parameter	TPH-Gasoline EPA5030/8015M	TPH-Diesel, and TPH-Oil EPA3510C/8015M	VOCs EPA5030/8260B
Chain-of-custody (COC)	✓	✓	✓
Sample Receipt	✓	✓	✓
Holding Times	✓	✓	✓
Method Blank	✓	✓	✓
Surrogate Recovery	✓	✓	✓
Laboratory Control Sample	✓	✓	✓
Matrix Spike	✓(1)	(2)	✓(1)
Duplicate or Spike Duplicate	✓(1)	(2)	✓(1)
Field Duplicate	✓	✓	✓
Trip Blank	✓	NA	✓
Equipment Blank	✓	NA	✓

✓ = Quality control evaluation criteria met

NA = Not Applicable or not analyzed

**Notes:**

- MS/MSD was conducted on sample MW-1. The results were within acceptance criterion.
- MS/MSD was conducted on non-site related sample matrix; therefore, the MS/MSD results obtained may not be fully representative of the accuracy and precision of the analysis on the site-specific sample matrix.

Summary: Based on this Limited validation covering the QC parameters listed in the table above, these data are considered to be useable for meeting project objectives without qualification. However, the data user must evaluate the ultimate usability of the data based on the reporting limits obtained. The table below lists the detection limits obtained for undiluted samples.

Analyte	Detection Limits Obtained
TPH-Diesel	500
TPH-Oil	2000
TPH-Gasoline	50
VOCs	1 to 25
Ethanol	500
MTBE	2
TBA	10
Other Oxygenates	2

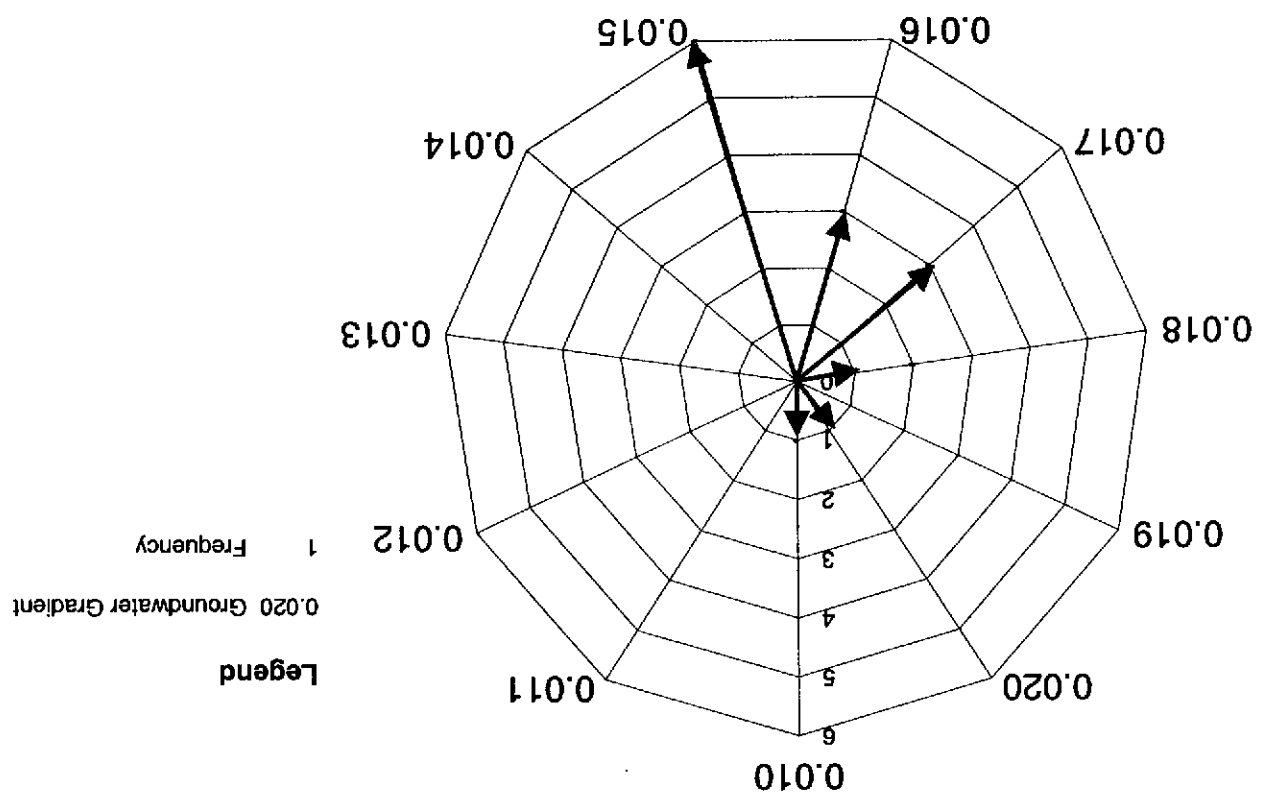
Aqueous units are microgram per Liter ( $\mu\text{g/L}$ ).

Samples did not require dilution for the requested analyses.

**APPENDIX H**

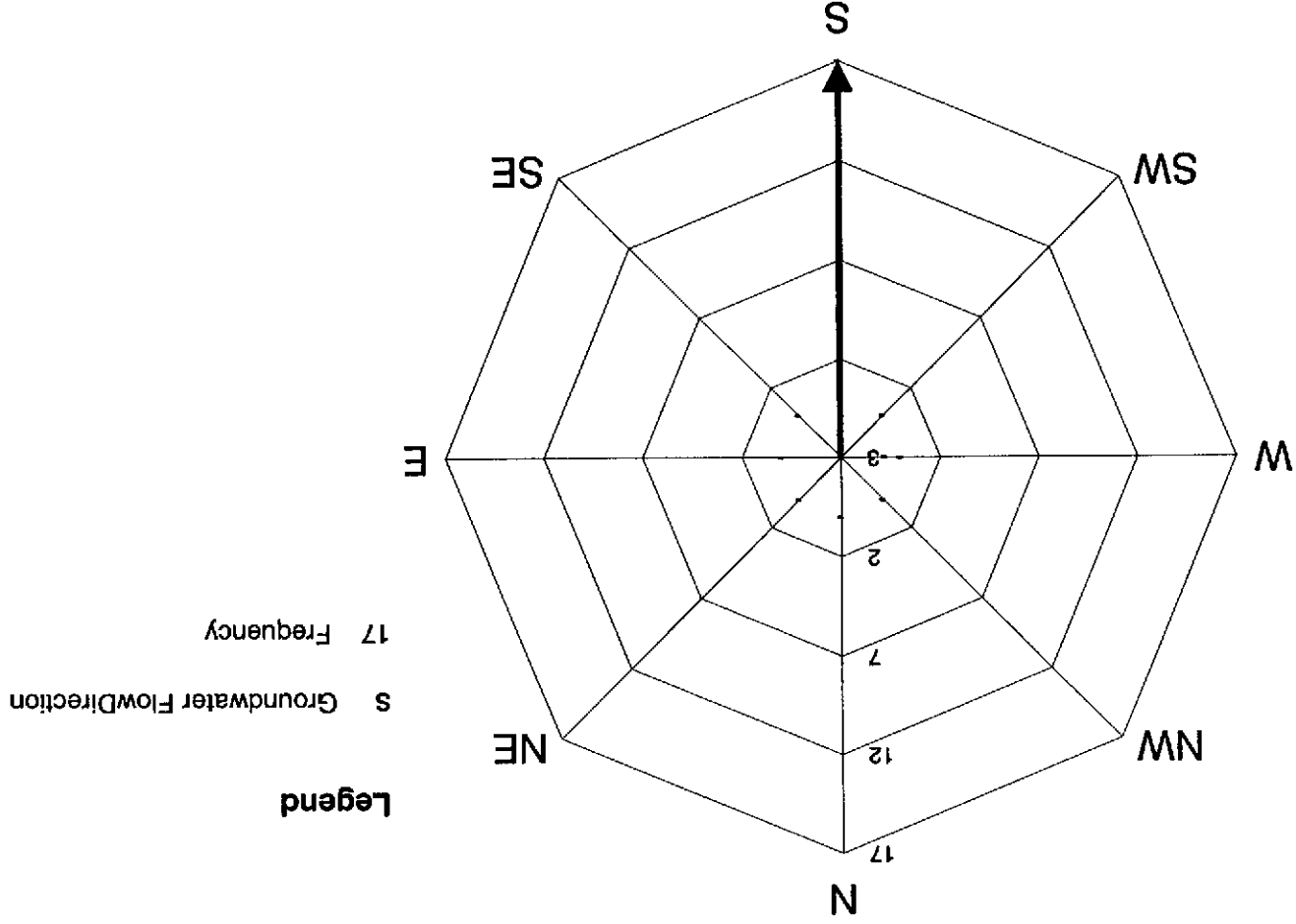
**ROSE DIAGRAMS FOR HISTORICAL GROUNDWATER GRADIENT  
AND FLOW DIRECTION**

Appendix H  
Historic Hydraulic Gradient Diagram  
Sears Auto Center #1058B  
2600 Telegraph Avenue, Oakland, CA  
February 25, 2000 - February 12, 2004



Legend  
0.020 Groundwater Gradient  
1 Frequency

Appendix H  
Historic Hydraulic Flow Direction Diagram  
Sears Auto Center #1058B  
2600 Telegraph Avenue, Oakland, CA  
February 25, 2000 - February 12, 2004



Legend

S Groundwater Flow Direction

17 Frequency

**APPENDIX I**  
**WELL SURVEY DATA**



## Well Legend

DOM=Domestic well

IRR=Irrigation well

MUN= Municipal well

IND=Industrial well

CAT=Cathodic well

DES=well destroyed (through permit)

ABN=Abandoned and not being used (but has not been destroyed through permit process)

TES=Test well

BOR= Geotechnical investigation

MON= Monitoring well

EXT=Extraction/ Vapor wells

PIE=Piezometers

REC=Recovery well (extraction/ vapor)

? = Unknown or no information found or given

*None within 1/4 mile of site*

1S/4W	26H14	2827 Webster St.	Oakland	Alan Rudy B-2	7/13/1993	122263483	37817098	1 1S/4W 26F	0	0 OAK	8/91	0	10	0	0 BOR
1S/4W	26G16	2633 Telegraph Ave.	Oakland	Sears Roebuck & Co. MW1	7/15/1993	122267754	37815668	1 1S/4W 26C	0	0 OAK	Dec-92	27	22	12	2 MON
1S/4W	26G17	2633 Telegraph Ave.	Oakland	Sears Roebuck & Co. MW2	7/15/1993	122267754	37815668	1 1S/4W 26C	0	0 OAK	Dec-92	27	22	12	2 MON
1S/4W	26G18	2633 Telegraph Ave.	Oakland	Sears Roebuck & Co. MW3	7/15/1993	122267754	37815668	1 1S/4W 26C	0	0 OAK	Dec-92	27	25	13	2 MON
1S/4W	26G19	2633 Telegraph Ave.	Oakland	Sears Roebuck & Co. MW4	7/15/1993	122267754	37815668	1 1S/4W 26C	0	0 OAK	Dec-92	27	23	13	2 MON
1S/4W	26G20	2633 Telegraph Ave.	Oakland	Sears Roebuck & Co. MW5	7/15/1993	122267754	37815668	1 1S/4W 26C	0	0 OAK	Dec-92	27	25	11	2 MON
1S/4W	26H	294 27th St.	Oakland	MR & RB Assoc.	7/27/1993	122262216	37815029	1 1S/4W 26F	0	0 OAK	9/92	0	20	8	0 BOR
1S/4W	26F 1	633 Sycamore St	Oakland	Gilbert Lopez (MW-1)	12/21/1993	122271088	37815824	1 1S/4W 26F	0	0 OAK	8/93	0	22	9	2 MON
1S/4W	26F 2	633 Sycamore St	Oakland	Gilbert Lopez (MW-2)	12/21/1993	122271088	37815824	1 1S/4W 26F	0	0 OAK	8/93	0	22	9	2 MON
1S/4W	26F 3	633 Sycamore St	Oakland	Gilbert Lopez (MW-3)	12/21/1993	122271088	37815824	1 1S/4W 26F	0	0 OAK	8/93	0	23	11	2 MON
1S/4W	26H15	2630 Broadway	Oakland	Chevron Oil B-9 (MW-9)	12/29/1994	122263922	37815367	1 1S/4W 26F	0	0 OAK	7/94	0	20	0	2 MON
1S/4W	26H16	2630 Broadway	Oakland	Chevron Oil B-10 (MW-10)	12/29/1994	122263922	37815367	1 1S/4W 26F	0	0 OAK	7/94	0	20	18	2 MON
1S/4W	26H17	2630 Broadway	Oakland	Chevron Oil B-11 (MW-11)	12/29/1994	122263922	37815367	1 1S/4W 26F	0	0 OAK	7/94	0	20	18	2 MON
1S/4W	26H18	2630 Broadway	Oakland	Chevron Oil B-12 (MW-12)	12/29/1994	122263922	37815367	1 1S/4W 26F	0	0 OAK	7/94	0	20	17	2 MON
1S/4W	26G21	477 25th St.	Oakland	United Glass MW-1	12/29/1994	122266775	37814637	1 1S/4W 26C	0	0 OAK	1/94	0	20	9	2 MON
1S/4W	26P15	1700 Jefferson St	Oakland	Blue Print Services	7/18/1997	122272753	37808224	1 1S/4W 26F	0	0 OAK	4/96	0	36	26	2 TES
1S/4W	26G22	2633 Telegraph Av	Oakland	Sears	7/22/1997	122267719	37815695	1 1S/4W 26C	0	0 OAK	Dec-93	25	22	14	2 MON
1S/4W	26G23	2633 Telegraph Av	Oakland	Sears	7/22/1997	122267719	37815695	1 1S/4W 26C	0	0 OAK	Dec-93	25	22	14	2 MON
1S/4W	26G24	2633 Telegraph Av	Oakland	Sears	7/22/1997	122267719	37815695	1 1S/4W 26C	0	0 OAK	Dec-93	26	22	14	2 MON
1S/4W	26K 1	2250 Telegraph Av	Oakland		7/24/1997	122268257	37812378	1 1S/4W 26F	0	0 OAK	3/94	0	19	11	2 MON
1S/4W	26K 2	2250 Telegraph Av	Oakland		7/24/1997	122268257	37812378	1 1S/4W 26F	0	0 OAK	3/94	0	19	9	2 MON
1S/4W	26K 3	2250 Telegraph Av	Oakland		7/24/1997	122268257	37812378	1 1S/4W 26F	0	0 OAK	3/94	0	19	10	2 MON
1S/4W	26K 4	2250 Telegraph Av	Oakland		7/24/1997	122268257	37812378	1 1S/4W 26F	0	0 OAK	3/94	0	19	10	2 MON
1S/4W	26H19	434 25th St	Oakland	Andre Mercier	7/24/1997	122265722	37814668	1 1S/4W 26F	0	0 OAK	8/94	101	15	14	2 MON
1S/4W	26H20	434 25th St	Oakland	Andre Mercier	7/24/1997	122265722	37814668	1 1S/4W 26F	0	0 OAK	8/94	101	15	15	2 MON
1S/4W	26H21	434 25th St	Oakland	Andre Mercier	7/24/1997	122265722	37814668	1 1S/4W 26F	0	0 OAK	8/94	101	15	14	2 MON
1S/4W	26Q11	1911 Telegraph Av	Oakland	Carter Hawley Hale	8/13/1997	122269321	37809130	1 1S/4W 26C	0	0 OAK	6/93	24	25	15	4 MON
1S/4W	26Q12	1911 Telegraph Av	Oakland	Carter Hawley Hale	8/13/1997	122269321	37809130	1 1S/4W 26C	0	0 OAK	6/93	26	30	19	4 MON
1S/4W	26Q13	1911 Telegraph Av	Oakland	Carter Hawley Hale	8/13/1997	122269321	37809130	1 1S/4W 26C	0	0 OAK	6/93	23	24	15	4 MON
1S/4W	26Q14	2025 Telegraph Av	Oakland	Goodyear Tire & Rubber Co	9/11/1997	122269015	37810451	1 1S/4W 26C	0	0 OAK	5/93	0	24	15	4 MON
1S/4W	26Q15	2025 Telegraph Av	Oakland	Goodyear Tire & Rubber Co	9/11/1997	122269015	37810451	1 1S/4W 26C	0	0 OAK	5/93	0	21	15	4 MON
1S/4W	26Q16	2025 Telegraph Av	Oakland	Goodyear Tire & Rubber Co	9/11/1997	122269015	37810451	1 1S/4W 26C	0	0 OAK	5/93	0	21	15	4 MON
1S/4W	26J11	2330 Webster St	Oakland	Labor Temple	9/17/1997	122264578	37812846	1 1S/4W 26J	0	0 OAK	Dec-95	0	30	21	2 MON
1S/4W	26J12	2330 Webster St	Oakland	Labor Temple	9/17/1997	122264578	37812846	1 1S/4W 26J	0	0 OAK	1/96	0	31	7	2 MON
1S/4W	26J13	2330 Webster St	Oakland	Labor Temple	9/17/1997	122264578	37812846	1 1S/4W 26J	0	0 OAK	1/96	0	31	23	2 MON
1S/4W	26J14	2330 Webster St	Oakland	Labor Temple	9/17/1997	122264578	37812846	1 1S/4W 26J	0	0 OAK	1/96	0	31	20	2 MON
1S/4W	26J15	2330 Webster St	Oakland	Labor Temple	9/17/1997	122264578	37812846	1 1S/4W 26J	0	0 OAK	1/96	0	31	22	2 MON
1S/4W	26J16	2330 Webster St	Oakland	Labor Temple	9/17/1997	122264578	37812846	1 1S/4W 26J	0	0 OAK	1/96	0	31	20	2 MON
1S/4W	26J17	2330 Webster St	Oakland	Labor Temple	9/17/1997	122264578	37812846	1 1S/4W 26J	0	0 OAK	1/96	0	31	20	2 MON
1S/4W	26G25	2633 Telegraph Av	Oakland	Sears Roebuck and Company	10/19/1997	122267731	37815671	1 1S/4W 26C	0	0 OAK	Oct-96	0	20	15	2 MON
1S/4W	26F 4	2703 Martin Luther King J	Oakland	Shell Oil Products Compan	11/3/1997	122271197	37817400	1 1S/4W 26F	0	0 OAK	7/96	0	13	11	2 EXT
1S/4W	26F 5	2703 Martin Luther King J	Oakland	Shell Oil Products Compan	11/3/1997	122271197	37817400	1 1S/4W 26F	0	0 OAK	7/96	0	13	8	2 EXT
1S/4W	26F 6	2703 Martin Luther King J	Oakland	Shell Oil Products Compan	11/3/1997	122271197	37817400	1 1S/4W 26F	0	0 OAK	7/96	0	21	11	2 MON
1S/4W	26F 7	2703 Martin Luther King J	Oakland	Shell Oil Products Compan	11/3/1997	122271197	37817400	1 1S/4W 26F	0	0 OAK	7/96	0	21	9	2 MON
1S/4W	26H22	2735 Broadway	Oakland	Ravizza Comm. Real Estate	11/3/1997	122263611	37816268	1 1S/4W 26F	0	0 OAK	Oct-93	0	38	27	4 MON
1S/4W	26H23	2735 Broadway	Oakland	Ravizza Comm. Real Estate	11/3/1997	122263611	37816268	1 1S/4W 26F	0	0 OAK	Oct-93	0	25	19	4 MON
1S/4W	26H24	2735 Broadway	Oakland	Ravizza Comm. Real Estate	11/3/1997	122263611	37816268	1 1S/4W 26F	0	0 OAK	Oct-93	0	30	20	4 MON
1S/4W	26H25	2735 Broadway	Oakland	Ravizza Comm. Real Estate	11/3/1997	122263611	37816268	1 1S/4W 26F	0	0 OAK	Oct-93	0	30	16	4 MON
1S/4W	26G26	554 27th St	Oakland	Joan Schoonbrood	2/24/1998	122268764	37816875	1 1S/4W 26C	0	0 OAK	6/95	0	20	10	2 MON
1S/4W	26G27	554 27th St	Oakland	Joan Schoonbrood	2/24/1998	122268764	37816875	1 1S/4W 26C	0	0 OAK	6/95	0	20	10	2 MON
1S/4W	26G28	554 27th St	Oakland	Joan Schoonbrood	2/24/1998	122268764	37816875	1 1S/4W 26C	0	0 OAK	6/95	0	20	10	2 MON
1S/4W	26H26	403 28th St	Oakland	Chrysler Realty Corporati	2/24/1998	122264962	37816675	1 1S/4W 26F	0	0 OAK	5/94	0	29	0	2 MON
1S/4W	26H27	403 28th St	Oakland	Chrysler Realty Corporati	2/24/1998	122264962	37816675	1 1S/4W 26F	0	0 OAK	5/94	0	29	0	2 MON
1S/4W	26H28	Valdez St && 26th St	Oakland	Broadway Motors Ford	3/29/1998	122263016	37814839	1 1S/4W 26F	0	0 OAK	5/97	0	15	10	2 MON
1S/4W	26H29	Valdez St && 26th St	Oakland	Broadway Motors Ford	3/29/1998	122263016	37814839	1 1S/4W 26F	0	0 OAK	5/97	0	15	10	2 MON
1S/4W	26H30	Valdez St && 26th St	Oakland	Broadway Motors Ford	3/29/1998	122263016	37814839	1 1S/4W 26F	0	0 OAK	5/97	0	15	0	2 MON
1S/4W	26G29	450 25th St	Oakland	Friction Materials, Inc	9/29/1998	122266062	37814745	1 1S/4W 26C	0	0 OAK	7/98	0	25	15	2 MON
1S/4W	26G30	450 25th St	Oakland	Friction Materials, Inc	9/29/1998	122266062	37814745	1 1S/4W 26C	0	0 OAK	7/98	0	25	14	2 MON
1S/4W	26G31	450 25th St	Oakland	Friction Materials, Inc	9/29/1998	122266062	37814745	1 1S/4W 26C	0	0 OAK	7/98	0	25	15	2 MON

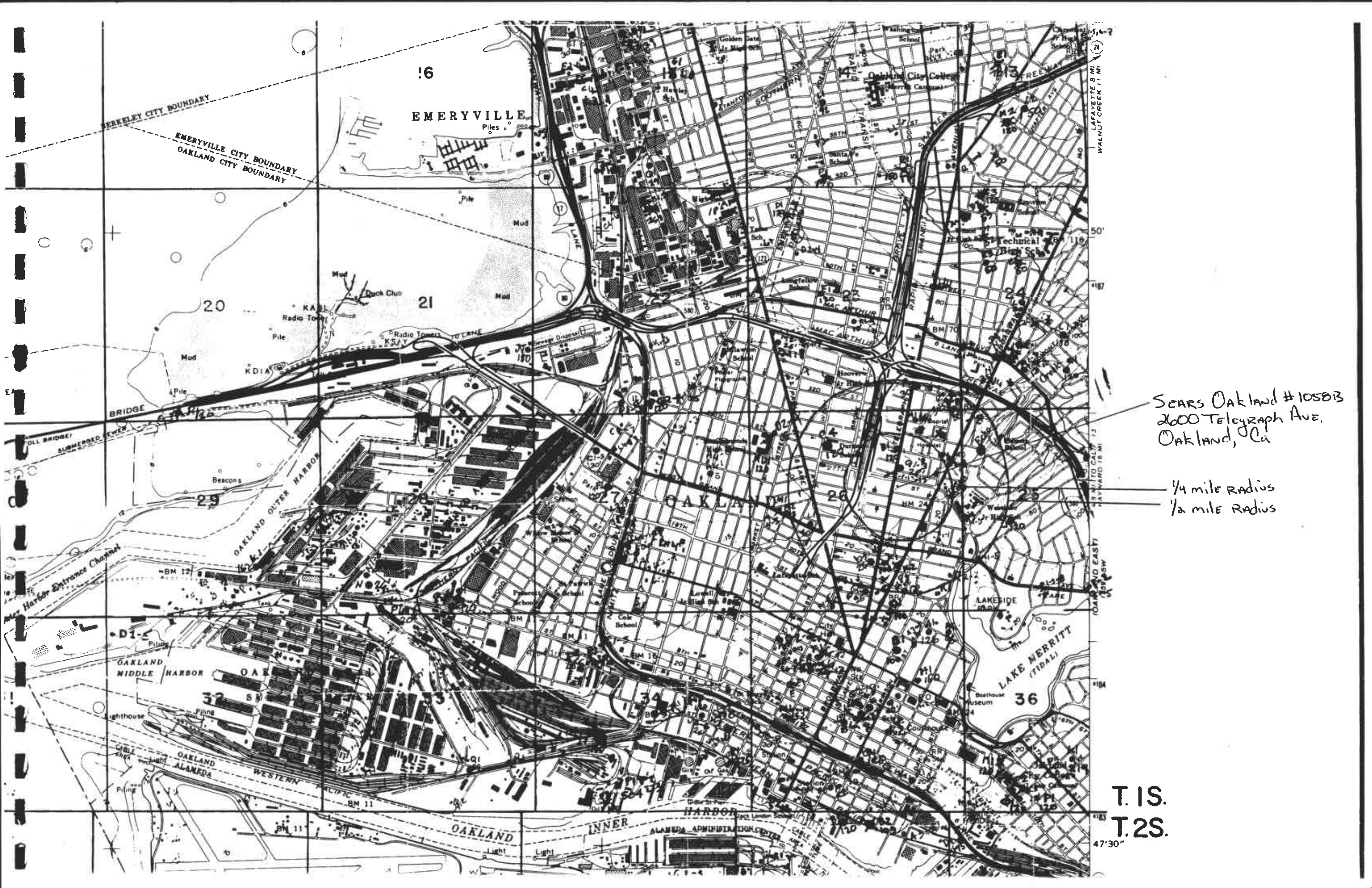


1S/4W	26J 2	23RD & VALDEZ	Oakland	OAKLAND TRIBUNE	6/15/1989	122263653	37812144	8 1S/4W 26J	2467	0 OAK	Aug-88	0	31	18	3 MON
1S/4W	26J 3	23RD & VALDEZ	Oakland	OAKLAND TRIBUNE	6/15/1989	122263653	37812144	8 1S/4W 26J	2468	0 OAK	Aug-88	0	26	15	3 MON
1S/4W	26J 4	2302 VALDEZ ST.	Oakland	MORRISON & FORESTER	11/6/1989	122263640	37812297	0 1S/4W 26J	2469	0 OAK	Aug-89	0	27	0	4 MON
1S/4W	26J 5	2302 VALDEZ ST.	Oakland	MORRISON & FORESTER	11/6/1989	122263640	37812297	0 1S/4W 26J	2470	0 OAK	Aug-89	0	27	0	4 MON
1S/4W	26J 6	2302 VALDEZ ST.	Oakland	MORRISON & FORESTER	11/6/1989	122263640	37812297	0 1S/4W 26J	2471	0 OAK	Aug-89	0	27	0	4 MON
1S/4W	26J 7	2302 VALDEZ ST.	Oakland	MORRISON & FORESTER	11/6/1989	122263640	37812297	0 1S/4W 26J	2472	0 OAK	Aug-89	0	27	0	4 MON
1S/4W	26K 1	2ND AND TELEGRAPH	Oakland	21ST AND TELE PARKING	12/12/1984	122268251	37812747	9 1S/4W 26F	2473	0 OAK	Oct-74	0	0	0	0 GEO*
1S/4W	26K 3	2225 TELEGRAPH AVE	Oakland	TEXACO STA #62488000195	12/20/1988	122268454	37812090	8 1S/4W 26F	2474	0 OAK	Jul-88	0	21	13	2 MON
1S/4W	26K 4	2225 TELEGRAPH AVE	Oakland	TEXACO STA #62488000195	12/20/1988	122268454	37812090	8 1S/4W 26F	2475	0 OAK	Jul-88	0	19	14	2 MON
1S/4W	26K 5	2225 TELEGRAPH AVE	Oakland	TEXACO STA #62488000195	12/20/1988	122268454	37812090	8 1S/4W 26F	2476	0 OAK	Jul-88	0	20	14	2 MON
1S/4W	26K 8	2225 TELEGRAPH AV.	Oakland	TEXACO	6/15/1989	122268454	37812090	8 1S/4W 26F	2477	0 OAK	Dec-88	100	22	14	4 MON
1S/4W	26K 9	2225 TELEGRAPH AV.	Oakland	TEXACO	6/15/1989	122268454	37812090	8 1S/4W 26F	2478	0 OAK	Dec-88	98	21	12	4 MON
1S/4W	26K 10	2225 TELEGRAPH AV.	Oakland	TEXACO	6/15/1989	122268454	37812090	8 1S/4W 26F	2479	0 OAK	Dec-88	98	21	13	4 MON
1S/4W	26L 1	774 W. GRAND AVE	Oakland	DAVID FYNE	6/9/1988	122274728	37813547	0 1S/4W 26L	2480	0 OAK	Apr-88	0	40	13	2 MON
1S/4W	26L 2	577 W. GRAND AV.	Oakland	U.S. POSTAL SVC.	6/15/1989	122269840	37812351	0 1S/4W 26L	2481	0 OAK	Dec-88	0	30	0	2 MON
1S/4W	26P 1	1700 JEFFERSON (@17th)	Oakland	BLUE PRINT SERVICES	2/23/1988	122272770	37808224	2 1S/4W 26F	2487	0 OAK	6/87	32	34	25	4 MON
1S/4W	26P 2	1700 JEFFERSON (@17th)	Oakland	BLUE PRINT SERVICES	2/23/1988	122272770	37808224	2 1S/4W 26F	2488	0 OAK	Nov-87	31	32	27	4 DES
1S/4W	26P 3	1700 JEFFERSON (@17th)	Oakland	BLUE PRINT SERVICES	2/23/1988	122272770	37808224	2 1S/4W 26F	2489	0 OAK	6/87	31	32	25	4 MON
1S/4W	26P 4	1700 JEFFERSON (@17th)	Oakland	BLUE PRINT SERVICES	2/23/1988	122272770	37808224	2 1S/4W 26F	2490	0 OAK	1/88	31	33	25	4 MON
1S/4W	26P 5	1700 JEFFERSON (@17th)	Oakland	BLUE PRINT SERVICES	2/23/1988	122272770	37808224	2 1S/4W 26F	2491	0 OAK	1/88	32	34	26	4 MON
1S/4W	26P 6	CRN OF 18TH & JEFFERSON	Oakland	BLUE PRINT SERVICE CO	12/20/1988	122272600	37808700	8 1S/4W 26F	2492	0 OAK	Oct-88	0	41	20	2 MON
1S/4W	26Q 1	19 & FRANKLIN ST	Oakland		12/12/1984	122267200	37807900	8 1S/4W 26C	2493	0 OAK	9/74	0	0	0	0 GEO*
1S/4W	26Q 2	BROADWAY & 20 ST	Oakland	BANK AMERICA	12/12/1984	122267700	37809700	8 1S/4W 26C	2494	0 OAK	Nov-78	0	0	0	0 GEO*
1S/4W	26Q 3	1911 TELEGRAPH AVE	Oakland	CARTER-HAWLEY-HALE	6/11/1988	122269338	37809130	0 1S/4W 26C	2495	0 OAK	Mar-88	0	25	18	2 TES
1S/4W	26Q 4	21ST & BROADWAY	Oakland	BANK OF AMERICA	6/15/1989	122267100	37810600	8 1S/4W 26C	2496	0 OAK	Nov-88	0	30	20	2 MON
1S/4W	26K 2	BROADWAY & 22ND ST	Oakland	SANWA BANK	12/12/1984	122266600	37811400	8 1S/4W 26F	6549	0 OAK	9/74	0	0	0	0 GEO*
1S/4W	26K 7	2225 TELEGRAPH AV.	Oakland	TEXACO	6/15/1989	122268454	37812090	8 1S/4W 26F	6552	0 OAK	Dec-88	100	22	14	4 MON
1S/4W	26P 6					0	0	9 1S/4W 26F	6821	0	Dec-88	0	40	20	2 TES
1S/4W	26J					0	0	9 1S/4W 26J	6896	0	Aug-89	0	25	0	0 BOR
1S/4W	26J					0	0	9 1S/4W 26J	6897	0	Aug-89	0	22	0	0 BOR
1S/4W	26J					0	0	9 1S/4W 26J	6898	0	Aug-89	0	22	0	0 BOR
1S/4W	26J					0	0	9 1S/4W 26J	6899	0	Aug-89	0	22	0	0 BOR
1S/4W	26J					0	0	9 1S/4W 26J	6900	0	Aug-89	0	24	0	0 BOR
1S/4W	26J					0	0	9 1S/4W 26J	6901	0	Aug-89	0	24	0	0 BOR
1S/4W	26J					0	0	9 1S/4W 26J	6902	0	Aug-89	0	22	0	0 BOR
1S/4W	26K 2					0	0	9 1S/4W 26F	6903	0	Jul-88	0	21	14	2 MON
1S/4W	26K 3					0	0	9 1S/4W 26F	6904	0	Jul-88	0	21	13	2 MON
1S/4W	26K 8					0	0	9 1S/4W 26F	6905	0	Dec-88	99	20	12	4 MON
1S/4W	26P 6					0	0	9 1S/4W 26F	6908	0	Oct-88	0	41	20	2 MON
1S/4W	26L 3	2103 San Pablo Ave	Oakland	Greyhound ES-1	9/30/1992	122273297	37811847	1 1S/4W 26L	7357	0 OAK	Nov-91	0	31	19	4 MON
1S/4W	26L 4	2103 San Pablo Ave	Oakland	Greyhound ES-2	9/30/1992	122273297	37811847	1 1S/4W 26L	7358	0 OAK	Nov-91	0	31	20	4 MON
1S/4W	26L 5	2103 San Pablo Ave	Oakland	Greyhound ES-3	3/9/1992	122273297	37811847	1 1S/4W 26L	7359	0 OAK	Nov-91	0	35	20	4 MON
1S/4W	26L 6	2103 San Pablo Ave	Oakland	Greyhound ES-4	3/9/1992	122273297	37811847	1 1S/4W 26L	7360	0 OAK	Nov-91	0	31	19	4 MON
1S/4W	26L 7	2103 San Pablo Ave	Oakland	Greyhound ES-5	9/30/1992	122273297	37811847	1 1S/4W 26L	7361	0 OAK	Nov-91	0	32	19	4 MON
1S/4W	26H10	2740 Broadway	Oakland	Vorelco, Inc.	8/3/1992	122263401	37816191	1 1S/4W 26F	7533	0 OAK	Oct-91	0	30	8	4 MON
1S/4W	26H11	2740 Broadway	Oakland	Vorelco, Inc.	8/3/1992	122263401	37816191	1 1S/4W 26F	7534	0 OAK	Oct-91	0	27	11	4 MON
1S/4W	26H	2827 Webster	Oakland	Alan Rudy B-1	8/14/1992	122263492	37817097	1 1S/4W 26F	7679	0 OAK	8/91	0	10	0	2 BOR*
1S/4W	26R 6	2100 Harrison St	Oakland	Ahmanson Comm Dev. MW-3	9/20/1992	122262261	37810004	1 1S/4W 26F	7866	0 OAK	3/92	0	25	7	4 MON
1S/4W	26K11	2225 Telegraph Ave	Oakland	Exxon Service Stn RW3A	9/21/1992	122268454	37812090	1 1S/4W 26F	7877	0 OAK	5/92	0	22	13	4 EXT
1S/4W	26K12	2225 Telegraph Ave	Oakland	Texaco MW6A	9/21/1992	122268454	37812090	1 1S/4W 26F	7878	0 OAK	5/92	0	21	0	12 DES
1S/4W	26R 7	1975 Webster St	Oakland	Mobil #04-077 MW-1	9/21/1992	122265694	37808734	1 1S/4W 26F	7892	0 OAK	5/92	8	16	6	4 MON
1S/4W	26R 8	1975 Webster St	Oakland	Mobil #04-077 MW-2	9/21/1992	122265694	37808734	1 1S/4W 26F	7893	0 OAK	5/92	9	16	7	4 MON
1S/4W	26R 9	1975 Webster St	Oakland	Mobil #04-077 MW-3	9/21/1992	122265694	37808734	1 1S/4W 26F	7894	0 OAK	4/92	0	28	5	4 MON
1S/4W	26R10	1975 Webster St	Oakland	Mobil #04-077 MW-4	9/21/1992	122265694	37808734	1 1S/4W 26F	7895	0 OAK	4/92	9	16	6	4 MON
1S/4W	26R	1975 Webster	Oakland	Mobil #04-077 SB1	9/21/1992	122265658	37808698	1 1S/4W 26F	7896	0 OAK	4/92	0	30	12	0 BOR*
1S/4W	26R11	1 Kaiser Plaza	Oakland	Ordway Building MW-1	9/23/1992	122262483	37810205	1 1S/4W 26F	7972	0 OAK	3/92	23	34	18	2 MON
1S/4W	26R12	1 Kaiser Plaza	Oakland	Ordway Building MW-2	9/23/1992	122262483	37810205	1 1S/4W 26F	7973	0 OAK	3/92	20	32	16	2 MON
1S/4W	26R13	1 Kaiser Plaza	Oakland	Ordway Building MW-3	9/23/1992	122262483	37810205	1 1S/4W 26F	7974	0 OAK	3/92	20	28	16	2 MON
1S/4W	26R	1 Kaiser Plaza	Oakland	Ordway Building B-2	9/23/1992	122262358	37810174	1 1S/4W 26F	7975	0 OAK	3/92	0	20	0	6 BOR*
1S/4W	26K4	2225 Telegraph Ave	Oakland	Texaco MW6C	9/26/1992	122268454	37812090	1 1S/4W 26F	8128	0 OAK	Nov-91	100	20	0	2 DES
1S/4W	26J10	2345 Broadway	Oakland	Negherbon Auto Center	6/17/1993	122265564	37813116	1 1S/4W 26J	0	0 OAK	6/92	0	29	22	2 MON



Tr	Section	Address	Longcity	Owner	Update	Xcoord	Ycoord	Matchlevel	Tsrqg	Rec code	Phone	City	Drilldate	Elevation	Totaldept	Waterdept	Diameter	Use	
	1S/4W	26A	3093 Broadway	Oakland	Connel Oldsmobile	3/14/1991	122260700	37820830		0	1S/4W 26A	1242	0	OAK	Oct-90	0	22	13	2 MON
	1S/4W	26A 1	450 30TH	Oakland	PERALTA HOSPITAL	7/31/1984	122265138	37819514		8	1S/4W 26A	2436	0	OAK	?	0	0	0	0 GEO*
	1S/4W	26A 2	3093 Broadway	Oakland	Connel Oldsmobile	1/11/1991	122260700	37820830		0	1S/4W 26A	929	0	OAK	Oct-90	90	18	4	2 MON
	1S/4W	26A 3	3093 Broadway	Oakland	Connell Oldsmobile	4/17/1991	122260700	37820830		0	1S/4W 26A	1627	0	OAK	Nov-90	0	41	40	2 MON
	1S/4W	26A 4	3093 Broadway	Oakland	Connell Oldsmobile	4/17/1991	122260700	37820830		0	1S/4W 26A	1628	0	OAK	2/91	0	15	7	4 MON
	1S/4W	26A 5	3093 Broadway	Oakland	Connell Oldsmobile	4/17/1991	122260700	37820830		0	1S/4W 26A	1629	0	OAK	2/91	0	40	27	2 MON
	1S/4W	26A 6	3093 Broadway	Oakland	Connell Oldsmobile	4/17/1991	122260700	37820830		0	1S/4W 26A	1630	0	OAK	2/91	0	35	22	2 MON
	1S/4W	26A 7	3093 Broadway	Oakland	Connell Oldsmobile	4/17/1991	122260700	37820830		0	1S/4W 26A	1631	0	OAK	2/91	0	30	24	2 MON
	1S/4W	26A 8	3093 Broadway	Oakland	Connell Oldsmobile	4/17/1991	122260700	37820830		0	1S/4W 26A	1632	0	OAK	3/91	0	35	25	2 MON
	1S/4W	26B 1	29 & TELEGRAPH AV	Oakland	PG&E	7/31/1984	122266800	37818400		8	1S/4W 26E	2437	0	OAK	4/74	0	0	8	0 CAT
95814	1S/4W	26B 2	3045 Telegraph Av	Oakland		7/21/1998	122266610	37819664		1	1S/4W 26E	0	0	OAK	4/96	0	16	11	1 MON
95814	1S/4W	26B 3	3045 Telegraph Av	Oakland		7/21/1998	122266610	37819664		1	1S/4W 26E	0	0	OAK	4/96	0	16	11	1 MON
95814	1S/4W	26B 4	3045 Telegraph Av	Oakland		7/21/1998	122266610	37819664		1	1S/4W 26E	0	0	OAK	4/96	0	16	11	1 MON
	1S/4W	26J 8	Valdez St.and 23rd Street	Oakland	Oakland Tribune	7/27/1990	122263800	37812100		3	1S/4W 26J	722	0	OAK	May-90	0	27	0	4 MON
	1S/4W	26J 9	Valdez St.and 23rd Street	Oakland	Oakland Tribune	7/29/1990	122263800	37812100		3	1S/4W 26J	723	0	OAK	May-90	0	25	0	4 MON
	1S/4W	26K	Broadway/W Grand Ave	Oakland	Commonwealth Companies	7/27/1990	122266300	37811900		3	1S/4W 26H	739	0	OAK	May-90	0	15	0	0 BOR
	1S/4W	26K 2	2225 Telegraph Avenue	Oakland	Texaco	7/30/1990	122268454	37812090		8	1S/4W 26H	750	0	OAK	May-90	99	25	14	4 EXT
	1S/4W	26K 6	2225 Telegraph Avenue	Oakland	Texaco	7/30/1990	122268454	37812090		8	1S/4W 26H	751	0	OAK	May-90	100	25	0	4 EXT
	1S/4W	26K 7	2225 Telegraph Avenue	Oakland	Texaco	7/30/1990	122268600	37811700		3	1S/4W 26H	752	0	OAK	May-90	98	25	0	4 EXT
	1S/4W	26H 6	2915 Broadway	Oakland	European Motors	6/21/1990	122262457	37818081		0	1S/4W 26H	322	0	OAK	2/90	45	30	12	2 MON
	1S/4W	26H 7	2915 Broadway	Oakland	European Motors	6/21/1990	122262457	37818081		0	1S/4W 26H	323	0	OAK	2/90	44	30	11	2 MON
	1S/4W	26H 8	2915 Broadway	Oakland	European Motors	6/21/1990	122262457	37818081		0	1S/4W 26H	324	0	OAK	2/90	44	30	10	2 MON
	1S/4W	26R 1	300 Lakeside Drive	Oakland	Kaiser Center	2/27/1991	122262777	37808352		8	1S/4W 26F	1082	0	OAK	1/91	0	13	0	2 DES
	1S/4W	26R 2	2100 Harrison Street	Oakland	Ahmanson Commercial Dvlpt	4/17/1991	122262261	37810004		0	1S/4W 26F	1622	0	OAK	2/91	0	290	0	5 DOM
	1S/4W	26R 3	2100 Harrison Street	Oakland	Ahmanson Commercial Dvlpt	4/17/1991	122262261	37810004		0	1S/4W 26F	1623	0	OAK	3/91	0	290	20	6 IRR
	1S/4W	26P 7	537 18th Street	Oakland	City of Oakland Redvlpmnt	6/12/1991	122271233	37808300		0	1S/4W 26F	1689	0	OAK	1/91	98	63	54	2 MON
	1S/4W	26P 8	570 18th Street	Oakland	City of Oakland Redvlpmnt	6/12/1991	122271885	37808538		0	1S/4W 26F	1690	0	OAK	1/91	97	15	0	4 EXT
	1S/4W	26P 9	19th St & San Pablo Ave	Oakland	City of Oakland Redvlpmnt	6/12/1991	122272100	37809300		0	1S/4W 26F	1691	0	OAK	1/91	0	30	23	2 TES
	1S/4W	26P 10	611 20th St	Oakland	City of Oakland Redvlpmnt	6/12/1991	122271359	37810437		0	1S/4W 26F	1692	0	OAK	1/91	0	30	23	2 TES
	1S/4W	26P 11	612 Williams St	Oakland	City of Oakland Redvlpmnt	6/12/1991	122271229	37810033		0	1S/4W 26F	1693	0	OAK	1/91	0	25	23	2 TES
	1S/4W	26P 12	585 20th St	Oakland	City of Oakland Redvlpmnt	6/12/1991	122270904	37810372		0	1S/4W 26F	1694	0	OAK	1/91	0	24	21	2 TES
	1S/4W	26P 13	588 - 596 Williams St	Oakland	City of Oakland Redvlpmnt	6/12/1991	122270877	37809978		3	1S/4W 26F	1695	0	OAK	1/91	0	28	23	2 TES
	1S/4W	26P 14	536 20th St	Oakland	City of Oakland Redvlpmnt	6/12/1991	122270106	37810458		0	1S/4W 26F	1696	0	OAK	1/91	0	23	14	2 TES
	1S/4W	26Q 5	17th St & Broadway	Oakland	City of Oakland Redvlpmnt	6/12/1991	122269200	37807300		0	1S/4W 26C	1697	0	OAK	1/91	0	27	20	2 TES
	1S/4W	26Q 6	557 19th Street	Oakland	City of Oakland Redvlpmnt	6/12/1991	122270854	37809021		0	1S/4W 26C	1698	0	OAK	1/91	0	25	16	2 TES
	1S/4W	26Q 7	19th St & Telegraph Ave	Oakland	City of Oakland Redvlpmnt	6/12/1991	122269300	37808900		3	1S/4W 26C	1699	0	OAK	1/91	0	25	19	2 TES
	1S/4W	26Q 8	552 19th St.	Oakland	City of Oakland Redvlpmnt	6/12/1991	122270742	37809207		0	1S/4W 26C	1700	0	OAK	1/91	0	24	19	2 TES
	1S/4W	26Q 9	20th St. & Telegraph Ave.	Oakland	City of Oakland Redvlpmnt	6/12/1991	122269000	37810200		0	1S/4W 26C	1701	0	OAK	1/91	0	28	21	2 TES
	1S/4W	26Q 10	513 18th St	Oakland	City of Oakland Redvlpmnt	6/12/1991	122270108	37808183		0	1S/4W 26C	1702	0	OAK	1/91	0	26	20	2 TES
	1S/4W	26P	S. Pablo & 18th/19th St	Oakland	E.B. Galleria	7/9/1991	122271800	37808400		3	1S/4W 26F	1721	0	OAK	Dec-90	0	120	0	2 CAT
	1S/4W	26R 4	300 Lakeside Drive	Oakland	Kaiser Center	7/26/1991	122262777	37808352		8	1S/4W 26F	1737	0	OAK	6/91	0	35	20	2 MON
	1S/4W	26H 9	2740 Broadway Ave	Oakland	Broadway Volkswagen	7/29/1991	122263401	37816191		3	1S/4W 26F	1751	0	OAK	4/91	5	17	3	2 MON
	1S/4W	26G 1	2800 TELEGRAPH AVE	Oakland	SHELL OIL COMPANY	8/8/1988	122267087	37817156		0	1S/4W 26C	2446	0	OAK	Apr-88	0	28	12	3 MON
	1S/4W	26G 2	2800 TELEGRAPH AVE	Oakland	SHELL OIL COMPANY	8/8/1988	122267087	37817156		0	1S/4W 26C	2447	0	OAK	Apr-88	0	28	12	3 MON
	1S/4W	26G 3	2800 TELEGRAPH AVE	Oakland	SHELL OIL COMPANY	8/8/1988	122267087	37817156		0	1S/4W 26C	2448	0	OAK	Apr-88	0	28	12	3 MON
	1S/4W	26G 4	2800 TELEGRAPH AV.	Oakland	SHELL OIL	6/15/1989	122267087	37817156		0	1S/4W 26C	2449	0	OAK	Oct-88	0	30	11	3 MON
	1S/4W	26G 5	2800 TELEGRAPH AV.	Oakland	SHELL OIL	6/15/1989	122267087	37817156		0	1S/4W 26C	2450	0	OAK	Oct-88	0	24	13	3 MON
	1S/4W	26G 6	2800 TELEGRAPH AV.	Oakland	SHELL OIL	6/15/1989	122267087	37817156		0	1S/4W 26C	2451	0	OAK	Oct-88	0	22	12	3 MON
	1S/4W	26G 7	2800 TELEGRAPH AV.	Oakland	SHELL OIL	6/15/1989	122267087	37817156		0	1S/4W 26C	2452	0	OAK	Oct-88	0	30	12	3 MON
	1S/4W	26G 8	2800 TELEGRAPH AV S-8	Oakland	SHELL OIL CO.	11/6/1989	122267087	37817156		2	1S/4W 26C	2453	0	OAK	Sep-89	26	22	11	3 MON
	1S/4W	26G 9	2800 TELEGRAPH AV S-9	Oakland	SHELL OIL CO.	11/6/1989	122267087	37817156		0	1S/4W 26C	2454	0	OAK	Sep-89	26	32	14	3 MON
	1S/4W	26G 10	2800 TELEGRAPH AV S10	Oakland	SHELL OIL CO.	11/6/1989	122267087	37817156		2	1S/4W 26C	2455	0	OAK	Sep-89	27	31	14	3 MON
	1S/4W	26G 11	2800 TELEGRAPH S11	Oakland	SHELL OIL	1/22/1990	122267087	37817156		2	1S/4W 26C	2459	0	OAK	Oct-89	0	31	14	3 MON
	1S/4W	26H 1	28 & VALDEZ ST	Oakland	CHRSTN CHURCH HOME BLDG	7/31/1984	122262100	37816600		8	1S/4W 26F	2460	0	OAK	?	0	0	0	0 GEO*
	1S/4W	26H 2	20TH ST.	Oakland	COMMUNITY CARE BLDG	7/31/1984	122293000	37817250		2	1S/4W 26F	2461	0	OAK	Nov-78	0	0	0	0 GEO*
	1S/4W	26H 3	2740 BROADWAY	Oakland	BROADWAY VW	6/15/1989	122263401	37816191		0	1S/4W 26F	2462	0	OAK	Jan-89	0	20	7	2 MON
	1S/4W	26H 4	2740 BROADWAY	Oakland	BROADWAY VW	6/15/1989	122263401	37816191		0	1S/4W 26F	2463	0	OAK	Jan-89	0	20	11	2 MON
	1S/4W	26H 5	2740 BROADWAY	Oakland	BROADWAY VW	6/15/1989	122263401	37816191		0	1S/4W 26F	2464	0	OAK	Jan-89	0	20	11	2 MON
	1S/4W	26J	2302 VALDEZ ST.	Oakland	MORRISON & FORESTER	11/6/1989	122263640	37812297		0	1S/4W 26J	2465	0	OAK	Aug-89	0	27	0	0 BOR
	1S/4W	26J 1	23RD & VALDEZ	Oakland	OAKLAND TRIBUNE	6/15/1989	122263653	37812144		8	1S/4W 26J	2466	0	OAK	Aug-88	0	31	18	3 MON





BERKELEY CITY BOUNDARY  
EMERYVILLE CITY BOUNDARY  
OAKLAND CITY BOUNDARY

EMERYVILLE  
Piles

SEARS Oakland # 105813  
2600 TELEGRAPH AVE.  
OAKLAND, Ca

1/4 mile RADIUS  
1/2 mile RADIUS

T. 1S.  
T. 2S.  
47'30"

**APPENDIX J**  
**OAKLAND URL ELIGIBILITY CHECKLIST**

## 2.2 Qualifying for the Oakland RBCA Levels



The Oakland Tier 1 RBSLs and Tier 2 SSTLs are intended to address human health concerns at the majority of sites in Oakland where commonly-found contaminants are present. Complicated sites—especially those with continuing releases, ecological concerns or unusual subsurface conditions—will likely require a Tier 3 analysis. The checklist that comprises Table 1 is designed to assist you in determining your site's eligibility for the Oakland RBCA levels.<sup>6</sup>

**Table 1. Oakland RBCA Eligibility Checklist**

CRITERIA	YES	NO
1. Is there a continuing, <i>primary</i> source of a chemical of concern, such as a leaking container, tank or pipe? (This does <i>not</i> include residual sources.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Is there any mobile or potentially-mobile free product?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Are there more than five chemicals of concern at the site at a concentration greater than the lowest applicable Oakland RBCA level?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Is there a preferential vapor migration pathway—such as a gravel channel or a utility corridor—that is less than 1 meter from <i>both</i> of the following?		
(a) A source area containing a volatile chemical of concern	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) A structure where inhalation of indoor air vapors is of concern	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Do <i>both</i> of the following conditions exist?		
(a) Groundwater is at depths less than 300 cm (10 feet)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Inhalation of volatilized chemicals of concern from groundwater in indoor or outdoor air is a pathway of concern but groundwater ingestion is <i>not</i> *	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Are there any existing on-site or off-site structures intended for future use where inhalation of indoor air vapors from either soil or groundwater is of concern <i>and</i> one or more of the following four conditions is present?		
(a) Chemicals of concern located less than one meter below the structure	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) A slab-on-grade foundation less than 15 cm (6 inches) thick	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) An enclosed, below-grade space (e.g., a basement) that has floors or walls less than 15 cm (6 inches) thick	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) A crawl space that is not ventilated	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Are there any immediate, acute health risks to humans associated with contamination at the site, including explosive levels of a chemical?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Are there any existing or potential exposure pathways to nearby ecological receptors, such as endangered species, wildlife refuge areas, wetlands, surface water bodies or other protected areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\*If groundwater ingestion is a pathway of concern, the associated Oakland RBCA levels will be more stringent than those for any groundwater-related inhalation scenario, rendering depth to groundwater irrelevant in the risk analysis.

If the answer to all questions is “no”, your site is eligible for both the Oakland Tier 1 RBSLs and Tier 2 SSTLs. Proceed to Section 2.3 for guidance on meeting the minimum Tier 1 and Tier 2 site characterization requirements.

**APPENDIX K**

**OAKLAND ULR TIER 1 RBSLS AND TIER 2 SSTLS**



Table 5. Oakland Tier 1 RBSLs

Medium	Exposure Pathway	Land Use	Type of Risk	Acenaphthene	Acenaphthylene	Acetone	Anthracene	Arsenic	Barium	Benz(a)anthracene	Benzene	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic					3.2E-01		2.5E-01	2.7E+00	
			Hazard	3.1E+03	3.1E+03	4.8E+03	1.6E+04	2.0E+01	5.2E+03		8.1E+01	
		Commercial/ Industrial	Carcinogenic					1.5E+00		7.9E-01	8.5E+00	
			Hazard	2.0E+04	2.0E+04	3.0E+04	1.0E+05	2.5E+02	9.4E+04		5.1E+02	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic							SAT	6.9E-02	
			Hazard	SAT	SAT	1.5E+03	SAT			SAT	2.3E+00	
		Commercial/ Industrial	Carcinogenic							SAT	1.1E+00	
			Hazard	SAT	SAT	4.4E+04	SAT				6.6E+01	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic							SAT	1.9E-01	
			Hazard	SAT	SAT	5.0E+03	SAT				7.6E+00	
		Commercial/ Industrial	Carcinogenic							SAT	7.3E-01	
			Hazard	SAT	SAT	2.9E+04	SAT				4.4E+01	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic						4.4E+00	1.2E+02	6.8E-01	2.1E-03
			Hazard	2.0E+02	1.4E+02	3.6E-01	SAT	4.4E+00	1.2E+02	2.9E+00	2.1E-03	
		Commercial/ Industrial	Carcinogenic					4.4E+00	1.2E+02	2.9E+00	2.1E-03	
			Hazard	SAT	SAT	2.4E+00	SAT	4.4E+00	1.2E+02		2.1E-03	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic							>SOL	1.1E-01	
			Hazard	>SOL	>SOL	2.0E+04	>SOL				3.7E+00	
		Commercial/ Industrial	Carcinogenic							>SOL	1.8E+00	
			Hazard	>SOL	>SOL	5.8E+05	>SOL				1.1E+02	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic							>SOL	5.6E+00	
			Hazard	>SOL	>SOL	2.1E+05	>SOL				2.2E+02	
		Commercial/ Industrial	Carcinogenic							>SOL	2.1E+01	
			Hazard	>SOL	>SOL	>SOL	>SOL				1.3E+03	
	Ingestion of Groundwater	Residential	Carcinogenic						5.0E-02	1.0E+00	5.6E-05	1.0E-03
			Hazard	9.4E-01	9.4E-01	1.6E+00	>SOL	5.0E-02	1.0E+00		1.0E-03	
		Commercial/ Industrial	Carcinogenic					5.0E-02	1.0E+00	2.4E-04	1.0E-03	
			Hazard	>SOL	>SOL	1.0E+01	>SOL	5.0E-02	1.0E+00		1.0E-03	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic					2.0E-03		1.6E-05	6.3E-03	
			Hazard	1.1E+00	1.7E+00	4.2E+01	>SOL	1.2E-01	2.8E+01		1.8E-01	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 5. Oakland Tier 1 RBSLs

Medium	Exposure Pathway	Land Use	Type of Risk	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Beryllium	Bis (2-ethylhexyl) phthalate	Butyl benzyl phthalate
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	2.5E-02	2.5E-01		2.5E-01	4.5E+03	3.6E+01	
			Hazard			2.1E+02	3.7E+02	1.0E+03	1.0E+04	
		Commercial/ Industrial	Carcinogenic	7.9E-02	7.9E-01		7.9E-01	1.7E+04	1.1E+02	
			Hazard			1.4E+03	6.8E+03	6.8E+03	6.8E+04	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
		Commercial/ Industrial	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
		Commercial/ Industrial	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	6.2E+00	2.1E+00		2.1E+00	9.6E+00	3.7E+03	
			Hazard	6.2E+00		SAT	9.6E+00	SAT	SAT	
		Commercial/ Industrial	Carcinogenic	6.2E+00	8.9E+00		8.9E+00	9.6E+00	1.6E+04	
			Hazard	6.2E+00		SAT	9.6E+00	SAT	SAT	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
		Commercial/ Industrial	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
		Commercial/ Industrial	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
	Ingestion of Groundwater	Residential	Carcinogenic	2.0E-04	5.6E-05		5.6E-05	4.0E-03	8.0E-03	
			Hazard	2.0E-04		>SOL	4.0E-03	3.1E-01	>SOL	
		Commercial/ Industrial	Carcinogenic	2.0E-04	2.4E-04		2.4E-04	4.0E-03	3.4E-02	
			Hazard	2.0E-04		>SOL	4.0E-03	>SOL	>SOL	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	1.1E-06	1.1E-05		1.2E-05		5.1E-02	
			Hazard			>SOL	2.0E+00	>SOL	>SOL	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 5. Oakland Tier 1 RBSLs

Medium	Exposure Pathway	Land Use	Type of Risk	Cadmium	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroform	Chromium (III)	Chromium (VI)
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	2.1E+03		1.8E+00		9.1E+00		1.3E+00
			Hazard	3.7E+01	1.2E+03	3.3E+01	7.9E+02	4.8E+02	7.4E+04	3.7E+02
		Commercial/ Industrial	Carcinogenic	7.9E+03		5.6E+00		2.9E+01		8.7E+00
			Hazard	6.8E+02	6.4E+03	2.1E+02	4.7E+03	3.0E+03	1.4E+06	6.8E+03
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			2.7E-02		3.3E-01		
			Hazard		1.1E+00	4.6E-01	6.2E-01	1.2E+01		
		Commercial/ Industrial	Carcinogenic			4.3E-01		5.2E+00		
			Hazard		3.3E+01	1.3E+01	1.8E+01	3.5E+02		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			7.6E-02		9.2E-01		
			Hazard		3.8E+00	1.5E+00	2.1E+00	4.1E+01		
		Commercial/ Industrial	Carcinogenic			2.9E-01		3.5E+00		
			Hazard		2.2E+01	8.8E+00	1.2E+01	2.4E+02		
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	1.1E+00		3.0E-03	6.6E-02	1.5E-01		2.9E+00
			Hazard	1.1E+00	2.9E+00	3.0E-03	6.6E-02	1.5E-01	8.5E+07	2.9E+00
		Commercial/ Industrial	Carcinogenic	1.1E+00		3.0E-03	6.6E-02	1.5E-01		2.9E+00
			Hazard	1.1E+00	1.9E+01	3.0E-03	6.6E-02	1.5E-01	5.6E+08	2.9E+00
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			1.6E-02		7.5E-01		
			Hazard		2.1E+00	2.7E-01	2.4E+00	2.8E+01		
		Commercial/ Industrial	Carcinogenic			2.6E-01		1.2E+01		
			Hazard		6.2E+01	7.8E+00	6.9E+01	8.0E+02		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			1.1E+00		3.4E+01		
			Hazard		1.7E+02	2.2E+01	2.0E+02	1.5E+03		
		Commercial/ Industrial	Carcinogenic			4.2E+00		1.3E+02		
			Hazard		9.6E+02	1.3E+02	>SOL	>SOL		
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03		5.0E-04	7.0E-02	1.0E-01		5.0E-02
			Hazard	5.0E-03	1.6E+00	5.0E-04	7.0E-02	1.0E-01	1.6E+01	5.0E-02
		Commercial/ Industrial	Carcinogenic	5.0E-03		5.0E-04	7.0E-02	1.0E-01		5.0E-02
			Hazard	5.0E-03	1.0E+01	5.0E-04	7.0E-02	1.0E-01	1.0E+02	5.0E-02
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			4.1E-03		3.9E-02		6.8E-03
			Hazard	2.0E-01	9.4E+00	7.1E-02	1.2E+00	1.9E+00	3.8E+02	1.9E+00

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 5. Oakland Tier 1 RBSLs

Medium	Exposure Pathway	Land Use	Type of Risk	Chrysene	Copper	Cresol(-m)	Cresol(-o)	Cresol(-p)	Cyanide	Dibenz(a,h)-anthracene	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	2.5E+00						7.4E-02	
			Hazard		2.8E+03	2.6E+03	2.6E+03	2.6E+02	3.0E+03		
		Commercial/ Industrial	Carcinogenic	7.9E+00							2.3E-01
			Hazard		5.0E+04	1.7E+04	1.7E+04	1.7E+03	5.5E+04		
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	SAT						SAT	
			Hazard			SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	SAT	2.8E-01					6.0E+00	1.9E+00
			Hazard		2.8E-01	2.2E+00	2.3E+00	2.1E-01	6.0E+00		
		Commercial/ Industrial	Carcinogenic	SAT	2.8E-01					6.0E+00	8.0E+00
			Hazard		2.8E-01	1.5E+01	1.5E+01	1.4E+00	6.0E+00		
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	>SOL						>SOL	
			Hazard			>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
	Ingestion of Groundwater	Residential	Carcinogenic	5.6E-04	1.3E+00					2.0E-01	1.6E-05
			Hazard		1.3E+00	7.8E-01	7.8E-01	7.8E-02	2.0E-01		
		Commercial/ Industrial	Carcinogenic	>SOL	1.3E+00					2.0E-01	7.0E-05
			Hazard		1.3E+00	5.1E+00	5.1E+00	5.1E-01	2.0E-01		
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	1.6E-04						1.4E-06	
			Hazard		1.5E+01	6.7E+00	6.4E+00	5.9E-01	7.0E+00		

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 5. Oakland Tier 1 RBSLs

Medium	Exposure Pathway	Land Use	Type of Risk	Dichloro-ethane (1,1-)	Dichloro-ethane (1,2-) (EDC)	Dichloro-ethylene (1,1-)	Dichloro-ethylene (cis 1,2-)	Dichloro-ethane (trans 1,2-)	Dimethylbenzo(a)anthracene (7,12)
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	4.7E+01	3.9E+00	4.9E-01			
			Hazard	4.9E+03	1.4E+02	4.3E+02	4.8E+02	9.5E+02	1.6E+03
		Commercial/ Industrial	Carcinogenic	1.5E+02	1.2E+01	1.5E+00			
			Hazard	3.1E+04	8.8E+02	2.7E+03	3.0E+03	6.1E+03	1.0E+04
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	8.6E-01	1.7E-01	9.4E-03			
			Hazard	1.3E+02	6.8E+00	3.0E+00	1.4E+01	1.9E+01	
		Commercial/ Industrial	Carcinogenic	1.4E+01	2.7E+00	1.5E-01			
			Hazard	SAT	2.0E+02	8.7E+01	4.1E+02	5.4E+02	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	2.4E+00	4.8E-01	2.6E-02			
			Hazard	4.5E+02	2.3E+01	9.9E+00	4.7E+01	6.2E+01	
		Commercial/ Industrial	Carcinogenic	9.1E+00	1.8E+00	1.0E-01			
			Hazard	SAT	1.3E+02	5.8E+01	2.8E+02	3.6E+02	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	6.4E-03	3.8E-04	1.5E-02	8.2E-03	2.0E-02	
			Hazard	6.4E-03	3.8E-04	1.5E-02	8.2E-03	2.0E-02	SAT
		Commercial/ Industrial	Carcinogenic	6.4E-03	3.8E-04	1.5E-02	8.2E-03	2.0E-02	
			Hazard	6.4E-03	3.8E-04	1.5E-02	8.2E-03	2.0E-02	SAT
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	2.3E+00	7.2E-01	1.4E-02			
			Hazard	3.6E+02	2.9E+01	4.3E+00	3.5E+01	3.2E+01	
		Commercial/ Industrial	Carcinogenic	3.6E+01	1.1E+01	2.2E-01			
			Hazard	>SOL	8.3E+02	1.2E+02	1.0E+03	9.4E+02	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	1.1E+02	1.8E+01	9.3E-01			
			Hazard	>SOL	8.6E+02	3.5E+02	1.6E+03	2.0E+03	
		Commercial/ Industrial	Carcinogenic	4.0E+02	6.9E+01	3.5E+00			
			Hazard	>SOL	5.0E+03	2.0E+03	>SOL	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	
			Hazard	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	>SOL
		Commercial/ Industrial	Carcinogenic	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	
			Hazard	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	>SOL
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	2.1E-01	2.4E-02	1.3E-03			
			Hazard	1.9E+01	7.2E-01	1.2E+00	1.8E+00	3.5E+00	>SOL

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 5. Oakland Tier 1 RBSLs

Medium	Exposure Pathway	Land Use	Type of Risk	Dimethyl-phenol (2,4)	di-n-Butyl-phthalate	di-n-octyl-phthalate	Dinitro-toluene (2,4)	Dioxane (1,4)	Ethyl-benzene	Ethylene Dibromide	Flouran-thene	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic				9.7E-01	1.0E+01		8.4E-02		
			Hazard	1.0E+03	5.2E+03	1.0E+03			5.1E+03	2.7E+00	2.1E+03	
		Commercial/ Industrial	Carcinogenic				3.0E+00	3.1E+01		2.6E-01		
			Hazard	6.7E+03	3.4E+04	6.8E+03			3.3E+04	1.7E+01	1.4E+04	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic				SAT	SAT		2.8E-01		
			Hazard	SAT	SAT	SAT			SAT	7.8E-01	SAT	
		Commercial/ Industrial	Carcinogenic				SAT	SAT		4.5E+00		
			Hazard	SAT	SAT	SAT			SAT	2.3E+01	SAT	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic				SAT	SAT		7.9E-01		
			Hazard	SAT	SAT	SAT			SAT	2.6E+00	SAT	
		Commercial/ Industrial	Carcinogenic				SAT	SAT		3.0E+00		
			Hazard	SAT	SAT	SAT			SAT	1.5E+01	SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic				6.7E-04	1.8E-03	8.0E+00	7.8E-05		
			Hazard	2.0E+00	3.9E+06	SAT			8.0E+00	7.8E-05	SAT	
		Commercial/ Industrial	Carcinogenic				2.9E-03	SAT	8.0E+00	7.8E-05		
			Hazard	1.3E+01	SAT	SAT			8.0E+00	7.8E-05	SAT	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic				>SOL	>SOL		5.7E-01		
			Hazard	>SOL	>SOL	>SOL			>SOL	1.6E+00	>SOL	
		Commercial/ Industrial	Carcinogenic				>SOL	>SOL		9.0E+00		
			Hazard	>SOL	>SOL	>SOL			>SOL	4.6E+01	>SOL	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic				>SOL	>SOL		8.7E+00		
			Hazard	>SOL	>SOL	>SOL			>SOL	2.9E+01	>SOL	
		Commercial/ Industrial	Carcinogenic				>SOL	>SOL		3.3E+01		
			Hazard	>SOL	>SOL	>SOL			>SOL	1.7E+02	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic				2.2E-04	2.5E-03	7.0E-01	5.0E-05		
			Hazard	3.1E-01	1.6E+00	>SOL			7.0E-01	5.0E-05	>SOL	
		Commercial/ Industrial	Carcinogenic				9.2E-04	1.1E-02	7.0E-01	5.0E-05		
			Hazard	2.0E+00	1.0E+01	>SOL			7.0E-01	5.0E-05	>SOL	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic				6.4E-03	>SOL		5.9E-04		
			Hazard	2.7E+00	7.3E+00	2.1E-03			3.6E+00	1.7E-02	>SOL	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 5. Oakland Tier 1 RBSLs

Medium	Exposure Pathway	Land Use	Type of Risk	Fluorene	Indeno- (1,2,3-CD)- pyrene	Mercury	Methanol	Methyl ethyl ketone	Methylene Chloride	Methyl- naphthalene (2-)	MTBE	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic		2.5E-01				2.1E+01			
			Hazard	2.1E+03		4.7E+00	2.4E+04	2.6E+04	3.1E+03	2.0E+03	2.6E+02	
		Commercial/ Industrial	Carcinogenic		7.9E-01					6.6E+01		
			Hazard	1.4E+04		3.0E+01	1.5E+05	1.6E+05	2.0E+04	1.3E+04	1.7E+03	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic		SAT				1.3E+00			
			Hazard	SAT		1.2E+01	4.5E+04	6.9E+03	7.4E+02	SAT	4.4E+03	
		Commercial/ Industrial	Carcinogenic		SAT					2.0E+01		
			Hazard	SAT			SAT	SAT	SAT	SAT	SAT	SAT
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic		SAT					3.5E+00		
			Hazard	SAT		4.0E+01	SAT	2.3E+04	2.5E+03	SAT	SAT	
		Commercial/ Industrial	Carcinogenic		SAT					1.3E+01		
			Hazard	SAT		2.3E+02	SAT	SAT	SAT	SAT	SAT	SAT
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic		SAT		3.2E-01			3.1E-03		7.6E-03
			Hazard	2.6E+02		3.2E-01	1.7E+00	3.3E+00	3.1E-03	1.6E+02	7.6E-03	
		Commercial/ Industrial	Carcinogenic		SAT		3.2E-01			3.1E-03		7.6E-03
			Hazard	SAT		3.2E-01	1.1E+01	2.2E+01	3.1E-03	1.1E+03	7.6E-03	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic		>SOL				6.7E+00			
			Hazard	>SOL		2.6E-01	6.5E+05	6.0E+04	4.0E+03	>SOL	2.4E+04	
		Commercial/ Industrial	Carcinogenic		>SOL					1.1E+02		
			Hazard	>SOL		7.6E+00	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic		>SOL					2.3E+02		
			Hazard	>SOL		1.6E+01	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
		Commercial/ Industrial	Carcinogenic		>SOL					8.7E+02		
			Hazard	>SOL		9.5E+01	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
	Ingestion of Groundwater	Residential	Carcinogenic		>SOL		2.0E-03			5.0E-03		1.3E-02
			Hazard	6.3E-01		2.0E-03	7.8E+00	9.4E+00	5.0E-03	6.3E-01	1.3E-02	
		Commercial/ Industrial	Carcinogenic		>SOL		2.0E-03			5.0E-03		1.3E-02
			Hazard	>SOL		2.0E-03	5.1E+01	6.1E+01	5.0E-03	4.1E+00	1.3E-02	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic		7.0E-06				1.3E-01			
			Hazard	3.1E-01		3.6E-02	2.2E+02	1.5E+02	1.6E+01	6.1E-01	1.5E+00	

\*Italicized concentrations based on California MCLs  
 SAT = RBSL exceeds saturated soil concentration of chemical  
 >SOL = RBSL exceeds solubility of chemical in water

Table 5. Oakland Tier 1 RBSLs

Medium	Exposure Pathway	Land Use	Type of Risk	Naphthalene	Nickel	Nitrobenzene	PCBs	Phenanthrene	Phenol	Pyrene	Pyridine	Selenium	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic		3.4E+04	5.5E+02	5.0E-02				2.8E+02		
			Hazard	2.0E+03	1.5E+03		1.2E+00	1.6E+04	3.1E+04	1.6E+03		3.7E+02	
		Commercial/ Industrial	Carcinogenic		1.3E+05	1.7E+03	1.8E-01					8.9E+02	
			Hazard	1.3E+04	2.7E+04		1.0E+01	1.0E+05	2.0E+05	1.0E+04			6.8E+03
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			SAT	6.9E+01				2.9E+03		
			Hazard	SAT			SAT	SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic			SAT	1.1E+03					4.6E+04	
			Hazard	SAT			SAT	SAT	SAT	SAT			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			SAT	1.9E+02					8.1E+03	
			Hazard	SAT			SAT	SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic			SAT	7.3E+02					3.1E+04	
			Hazard	SAT			SAT	SAT	SAT	SAT			
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	1.2E+00	2.0E+01	2.9E-01	4.7E+00					1.2E-01	7.7E-01
			Hazard	1.2E+00	2.0E+01		4.7E+00	SAT	1.0E+01	SAT			7.7E-01
		Commercial/ Industrial	Carcinogenic	1.2E+00	2.0E+01	1.2E+00	4.7E+00					5.3E-01	7.7E-01
			Hazard	1.2E+00	2.0E+01		4.7E+00	SAT	6.7E+01	SAT			7.7E-01
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			>SOL	2.3E-02				4.8E+03		
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic			>SOL	3.6E-01					7.7E+04	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			>SOL	3.2E-01					4.1E+04	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic			>SOL	>SOL					1.5E+05	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL			
	Ingestion of Groundwater	Residential	Carcinogenic	2.0E-02	1.0E-01	1.3E-01	5.0E-04					6.7E-02	5.0E-02
			Hazard	2.0E-02	1.0E-01		5.0E-04	>SOL	9.4E+00	>SOL			5.0E-02
		Commercial/ Industrial	Carcinogenic	2.0E-02	1.0E-01	5.7E-01	5.0E-04					2.9E-01	5.0E-02
			Hazard	2.0E-02	1.0E-01		5.0E-04	>SOL	6.1E+01	>SOL			5.0E-02
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			2.8E+00	1.6E-06				2.6E+00		
			Hazard	1.5E+00	7.9E+00		4.4E-05	>SOL	1.5E+02	>SOL		2.0E+00	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water



Table 5. Oakland Tier 1 RBSLs

Medium	Exposure Pathway	Land Use	Type of Risk	Silver	Styrene	Tetrachloro-ethane (1,1,2,2-)	Tetrachloro-ethylene (PCE)	Tetraethyl Lead	Toluene	Trichloro-ethane (1,1,1-)	Trichloro-ethane (1,1,2-)	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic			1.0E+00	5.7E+00				3.8E+00	
			Hazard	3.7E+02	9.8E+03	1.2E+03	4.8E+02	5.2E-03	9.0E+03	1.8E+03	1.9E+02	
		Commercial/ Industrial	Carcinogenic			3.1E+00	1.8E+01					1.2E+01
			Hazard	6.8E+03	6.3E+04	7.9E+03	3.0E+03	3.4E-02	5.6E+04	1.2E+04	1.2E+03	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			7.4E-01	3.0E-01				5.4E-01	
			Hazard		SAT	1.0E+03	1.2E+01		3.6E+02	2.6E+02	3.1E+01	
		Commercial/ Industrial	Carcinogenic			1.2E+01	4.8E+00					8.7E+00
			Hazard		SAT	SAT	SAT		SAT	SAT	8.9E+02	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			2.1E+00	8.4E-01					1.5E+00
			Hazard		SAT	SAT	4.1E+01		SAT	8.7E+02	1.0E+02	
		Commercial/ Industrial	Carcinogenic			7.8E+00	3.2E+00					5.8E+00
			Hazard		SAT	SAT	2.4E+02		SAT	SAT	5.9E+02	
	Ingestion of Groundwater Impacted by Leachate	Residential	Residential	Carcinogenic	2.5E+00	2.4E+00	3.0E-03	2.6E-02	2.4E+00	8.8E-01	7.8E-01	8.8E-03
				Hazard	2.5E+00	2.4E+00	3.0E-03	2.6E-02	2.4E+00	8.8E-01	7.8E-01	8.8E-03
			Commercial/ Industrial	Carcinogenic	2.5E+00	2.4E+00	3.0E-03	2.6E-02	2.4E+00	8.8E-01	7.8E-01	8.8E-03
				Hazard	2.5E+00	2.4E+00	3.0E-03	2.6E-02	2.4E+00	8.8E-01	7.8E-01	8.8E-03
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			7.5E-01	2.0E-01				9.9E-01	
			Hazard		>SOL	1.0E+03	8.4E+00		2.1E+02	2.4E+02	5.6E+01	
		Commercial/ Industrial	Carcinogenic			1.2E+01	3.3E+00					1.6E+01
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	1.6E+03	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			1.1E+01	1.3E+01					2.2E+01
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	1.5E+03	
		Commercial/ Industrial	Carcinogenic			4.1E+01	5.1E+01					8.4E+01
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	>SOL	
	Ingestion of Groundwater	Residential	Residential	Carcinogenic	1.0E-01	1.0E-01	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03
				Hazard	1.0E-01	1.0E-01	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03
			Commercial/ Industrial	Carcinogenic	1.0E-01	1.0E-01	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03
				Hazard	1.0E-01	1.0E-01	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			4.5E-03	6.0E-03				1.8E-02	
			Hazard	2.1E+00	9.3E+00	4.9E+00	5.3E-01	6.7E-06	1.1E+01	4.3E+00	7.8E-01	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 5. Oakland Tier 1 RBSLs

Medium	Exposure Pathway	Land Use	Type of Risk	Trichloroethylene (TCE)	Vanadium	Vinyl Chloride	Xylenes	Zinc
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	1.9E+01		5.0E-01		
			Hazard	2.9E+02	5.2E+02		5.4E+04	2.2E+04
		Commercial/ Industrial	Carcinogenic	5.9E+01		1.6E+00		
			Hazard	1.8E+03	9.5E+03		3.0E+05	4.1E+05
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	1.1E+00		1.3E-03		
			Hazard	1.3E+01			SAT	
		Commercial/ Industrial	Carcinogenic	1.7E+01		2.1E-02		
			Hazard	3.6E+02			SAT	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	3.0E+00		3.7E-03		
			Hazard	4.2E+01			SAT	
		Commercial/ Industrial	Carcinogenic	1.1E+01		1.4E-02		
			Hazard	2.4E+02			SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	2.7E-02		6.5E-04	1.3E+01	
			Hazard	2.7E-02	3.3E+02	6.5E-04	1.3E+01	8.8E+02
		Commercial/ Industrial	Carcinogenic	2.7E-02		6.5E-04	1.3E+01	
			Hazard	2.7E-02	2.2E+03	6.5E-04	1.3E+01	5.8E+03
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	6.9E-01		3.7E-03		
			Hazard	8.1E+00			>SOL	
		Commercial/ Industrial	Carcinogenic	1.1E+01		5.9E-02		
			Hazard	2.3E+02			>SOL	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	4.1E+01		2.5E-01		
			Hazard	5.7E+02			>SOL	
		Commercial/ Industrial	Carcinogenic	1.5E+02		9.6E-01		
			Hazard	>SOL			>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03		5.0E-04	1.8E+00	
			Hazard	5.0E-03	1.1E-01	5.0E-04	1.8E+00	4.7E+00
		Commercial/ Industrial	Carcinogenic	5.0E-03		5.0E-04	1.8E+00	
			Hazard	5.0E-03	7.2E-01	5.0E-04	1.8E+00	3.1E+01
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	4.6E-03		2.6E-03		
			Hazard	7.2E-02	2.8E+00		6.6E+01	1.2E+02

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

## APPENDIX F: TIER 2 SITE-SPECIFIC TARGET LEVELS

This appendix contains the complete set of Oakland Tier 2 SSTLs for Merritt sands, sandy silts and clayey silts. The Oakland Tier 2 SSTLs may be applied only at sites that meet the eligibility criteria specified in Section 2.2 *and* where one or more of the three soil types has been shown to prevail (see Section 2.3.4).

Please note that the Oakland RBCA look-up tables will be updated whenever new or better information becomes available. It is recommended that you consult the ULR Program web page at [www.oaklandpw.com](http://www.oaklandpw.com) to make sure that you have the latest version of the look-up tables before applying the Oakland Tier 2 SSTLs at your site.

For step-by-step assistance in reading the look-up tables, refer back to Section 2.4.

Table 6. Oakland Tier 2 SSTLs for Merritt Sands

Medium	Exposure Pathway	Land Use	Type of Risk	Acenaphthene	Acenaphthylene	Acetone	Anthracene	Arsenic	Barium	Benz(a)anthracene	Benzene	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic					3.8E+00		3.7E+00	3.7E+01	
			Hazard	3.9E+03	3.9E+03	5.8E+03	1.9E+04	2.2E+01	5.3E+03		9.9E+01	
		Commercial/ Industrial	Carcinogenic					2.4E+01		1.6E+01	1.5E+02	
			Hazard	4.0E+04	4.0E+04	5.4E+04	2.0E+05	3.8E+02	1.2E+05		9.2E+02	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic							SAT	7.0E-01	
			Hazard	SAT	SAT	1.8E+03	SAT				2.3E+00	
		Commercial/ Industrial	Carcinogenic							SAT	1.1E+01	
			Hazard	SAT	SAT	5.3E+04	SAT				6.7E+01	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic							SAT	3.9E+00	
			Hazard	SAT	SAT	1.2E+04	SAT				1.6E+01	
		Commercial/ Industrial	Carcinogenic							SAT	1.5E+01	
			Hazard	SAT	SAT	7.0E+04	SAT				9.1E+01	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic						2.1E+01	6.0E+02	3.2E+01	1.0E-02
			Hazard	SAT	SAT	2.1E+00	SAT	2.1E+01	6.0E+02		1.0E-02	
		Commercial/ Industrial	Carcinogenic					2.1E+01	6.0E+02	SAT	1.0E-02	
			Hazard	SAT	SAT	1.4E+01	SAT	2.1E+01	6.0E+02		1.0E-02	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic							>SOL	1.4E+00	
			Hazard	>SOL	>SOL	2.0E+04	>SOL				4.7E+00	
		Commercial/ Industrial	Carcinogenic							>SOL	2.2E+01	
			Hazard	>SOL	>SOL	5.9E+05	>SOL				1.4E+02	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic								>SOL	1.8E+02
			Hazard	>SOL	>SOL	4.2E+05	>SOL				7.2E+02	
		Commercial/ Industrial	Carcinogenic							>SOL	6.9E+02	
			Hazard	>SOL	>SOL	>SOL	>SOL				>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic						5.0E-02	1.0E+00	5.6E-04	1.0E-03
			Hazard	9.4E-01	9.4E-01	1.6E+00	>SOL	5.0E-02	1.0E+00		1.0E-03	
Commercial/ Industrial		Carcinogenic					5.0E-02	1.0E+00	2.4E-03	1.0E-03		
		Hazard	>SOL	>SOL	1.0E+01	>SOL	5.0E-02	1.0E+00		1.0E-03		
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic					2.0E-02		1.6E-04	6.3E-02	
			Hazard	1.1E+00	1.7E+00	4.2E+01	>SOL	1.2E-01	2.8E+01		1.8E-01	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 6. Oakland Tier 2 SSTLs for Merritt Sands

Medium	Exposure Pathway	Land Use	Type of Risk	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Beryllium	Bis (2-ethylhexyl) phthalate	Butyl benzyl phthalate
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	3.7E-01	3.7E+00		3.7E+00	4.5E+04	5.3E+02	
			Hazard			2.6E+02		3.8E+02	1.3E+03	1.3E+04
		Commercial/ Industrial	Carcinogenic	1.6E+00	1.6E+01		1.6E+01	1.7E+05	2.3E+03	
			Hazard			2.7E+03		8.5E+03	1.4E+04	1.4E+05
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
		Commercial/ Industrial	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
		Commercial/ Industrial	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	SAT	SAT		SAT	4.6E+01	SAT	
			Hazard	SAT		SAT		4.6E+01	SAT	SAT
		Commercial/ Industrial	Carcinogenic	SAT	SAT		SAT	4.6E+01	SAT	
			Hazard	SAT		SAT		4.6E+01	SAT	SAT
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
		Commercial/ Industrial	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
		Commercial/ Industrial	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
	Ingestion of Groundwater	Residential	Carcinogenic	2.0E-04	5.6E-04		5.6E-04	4.0E-03	8.0E-02	
			Hazard	2.0E-04		>SOL		4.0E-03	3.1E-01	>SOL
		Commercial/ Industrial	Carcinogenic	2.0E-04	>SOL		>SOL	4.0E-03	>SOL	
			Hazard	2.0E-04		>SOL		4.0E-03	>SOL	>SOL
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	1.1E-05	1.1E-04		1.2E-04		>SOL	
			Hazard			>SOL		2.0E+00	>SOL	>SOL

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 6. Oakland Tier 2 SSTLs for Merritt Sands

Medium	Exposure Pathway	Land Use	Type of Risk	Cadmium	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroform	Chromium (III)	Chromium (VI)
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	2.1E+04		2.5E+01		1.3E+02		1.4E+01
			Hazard	3.8E+01	1.3E+03	4.0E+01	9.2E+02	5.8E+02	7.7E+04	3.8E+02
		Commercial/ Industrial	Carcinogenic	7.9E+04		1.0E+02		5.3E+02		1.1E+02
			Hazard	8.5E+02	7.0E+03	3.6E+02	7.2E+03	5.4E+03	1.7E+06	8.5E+03
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			2.7E-01		3.4E+00		
			Hazard		1.1E+00	4.5E-01	6.5E-01	1.3E+01		
		Commercial/ Industrial	Carcinogenic			4.3E+00		5.4E+01		
			Hazard		3.3E+01	1.3E+01	1.9E+01	3.7E+02		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			1.5E+00		1.9E+01		
			Hazard		7.6E+00	3.0E+00	4.4E+00	8.5E+01		
		Commercial/ Industrial	Carcinogenic			5.8E+00		7.2E+01		
			Hazard		4.4E+01	1.8E+01	2.5E+01	4.9E+02		
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	5.5E+00		1.4E-02	3.3E-01	7.3E-01		1.4E+01
			Hazard	5.5E+00	1.4E+01	1.4E-02	3.3E-01	7.3E-01	4.1E+08	1.4E+01
		Commercial/ Industrial	Carcinogenic	5.5E+00		1.4E-02	3.3E-01	7.3E-01		1.4E+01
			Hazard	5.5E+00	9.1E+01	1.4E-02	3.3E-01	7.3E-01	2.7E+09	1.4E+01
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			2.7E-01		9.1E+00		
			Hazard		3.3E+00	4.5E-01	4.0E+00	3.4E+01		
		Commercial/ Industrial	Carcinogenic			4.3E+00		1.4E+02		
			Hazard		9.5E+01	1.3E+01	1.2E+02	9.8E+02		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			5.6E+01		1.0E+03		
			Hazard		7.3E+02	1.1E+02	>SOL	4.5E+03		
		Commercial/ Industrial	Carcinogenic			2.1E+02		3.9E+03		
			Hazard		>SOL	6.5E+02	>SOL	>SOL		
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03		5.0E-04	7.0E-02	1.0E-01		5.0E-02
			Hazard	5.0E-03	1.6E+00	5.0E-04	7.0E-02	1.0E-01	1.6E+01	5.0E-02
		Commercial/ Industrial	Carcinogenic	5.0E-03		5.0E-04	7.0E-02	1.0E-01		5.0E-02
			Hazard	5.0E-03	1.0E+01	5.0E-04	7.0E-02	1.0E-01	1.0E+02	5.0E-02
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			4.1E-02		3.9E-01		6.8E-02
			Hazard	2.0E-01	9.4E+00	7.1E-02	1.2E+00	1.9E+00	3.8E+02	1.9E+00

\*Italicized concentrations based on California MCLs  
 SAT = RBSL exceeds saturated soil concentration of chemical  
 >SOL = RBSL exceeds solubility of chemical in water

Table 6. Oakland Tier 2 SSTLs for Merritt Sands

Medium	Exposure Pathway	Land Use	Type of Risk	Chrysene	Copper	Cresol(m)	Cresol(o)	Cresol(p)	Cyanide	Dibenz(a,h)-anthracene	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	3.7E+01						1.1E+00	
			Hazard		2.8E+03	3.2E+03	3.2E+03	3.2E+02	3.1E+03		
		Commercial/ Industrial	Carcinogenic	1.6E+02							4.7E+00
			Hazard		6.3E+04	3.3E+04	3.3E+04	3.3E+03	6.8E+04		
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	SAT						SAT	
			Hazard			SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	SAT	1.7E+00					2.9E+01	9.1E+01
			Hazard		1.7E+00	1.1E+01	1.1E+01	1.0E+00	2.9E+01		
		Commercial/ Industrial	Carcinogenic	SAT	1.7E+00					2.9E+01	SAT
			Hazard		1.7E+00	7.1E+01	7.4E+01	6.7E+00	2.9E+01		
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	>SOL						>SOL	
			Hazard			>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
	Ingestion of Groundwater	Residential	Carcinogenic	>SOL	1.3E+00					2.0E-01	1.6E-04
			Hazard		1.3E+00	7.8E-01	7.8E-01	7.8E-02	2.0E-01		
		Commercial/ Industrial	Carcinogenic	>SOL	1.3E+00					2.0E-01	7.0E-04
			Hazard		1.3E+00	5.1E+00	5.1E+00	5.1E-01	2.0E-01		
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	>SOL						1.4E-05	
			Hazard		1.5E+01	6.7E+00	6.4E+00	5.9E-01	7.0E+00		

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 6. Oakland Tier 2 SSTLs for Merritt Sands

Medium	Exposure Pathway	Land Use	Type of Risk	Dichloro-ethane (1,1-)	Dichloro-ethane (1,2-) (EDC)	Dichloro-ethylene (1,1-)	Dichloro-ethylene (cis 1,2-)	Dichloro-ethane (trans 1,2)	Dimethylbenz(a)anthracene (7,12)
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	6.6E+02	5.3E+01	7.0E+00			
			Hazard	6.0E+03	1.7E+02	5.2E+02	5.8E+02	1.2E+03	2.0E+03
		Commercial/ Industrial	Carcinogenic	2.7E+03	2.2E+02	3.0E+01			
			Hazard	5.8E+04	1.6E+03	4.9E+03	5.4E+03	1.1E+04	2.0E+04
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	8.8E+00	1.8E+00	9.2E-02			
			Hazard	1.4E+02	7.2E+00	2.9E+00	1.5E+01	1.9E+01	
		Commercial/ Industrial	Carcinogenic	1.4E+02	2.9E+01	1.5E+00			
			Hazard	SAT	2.1E+02	8.5E+01	4.3E+02	5.5E+02	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	5.0E+01	1.0E+01	5.2E-01			
			Hazard	9.3E+02	4.8E+01	2.0E+01	9.9E+01	1.3E+02	
		Commercial/ Industrial	Carcinogenic	1.9E+02	3.9E+01	2.0E+00			
			Hazard	SAT	2.8E+02	1.1E+02	5.7E+02	7.4E+02	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	3.1E-02	1.9E-03	7.0E-02	4.0E-02	9.6E-02	
			Hazard	3.1E-02	1.9E-03	7.0E-02	4.0E-02	9.6E-02	SAT
		Commercial/ Industrial	Carcinogenic	3.1E-02	1.9E-03	7.0E-02	4.0E-02	9.6E-02	
			Hazard	3.1E-02	1.9E-03	7.0E-02	4.0E-02	9.6E-02	SAT
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	2.8E+01	7.7E+00	2.2E-01			
			Hazard	4.3E+02	3.1E+01	7.0E+00	4.0E+01	4.2E+01	
		Commercial/ Industrial	Carcinogenic	4.4E+02	1.2E+02	3.5E+00			
			Hazard	>SOL	8.9E+02	2.0E+02	1.2E+03	1.2E+03	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	3.2E+03	4.1E+02	4.5E+01			
			Hazard	>SOL	2.0E+03	1.7E+03	>SOL	>SOL	
		Commercial/ Industrial	Carcinogenic	>SOL	1.6E+03	1.7E+02			
			Hazard	>SOL	>SOL	>SOL	>SOL	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	
			Hazard	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	>SOL
		Commercial/ Industrial	Carcinogenic	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	
			Hazard	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	>SOL
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	2.1E+00	2.4E-01	1.3E-02			
			Hazard	1.9E+01	7.2E-01	1.2E+00	1.8E+00	3.5E+00	>SOL

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water



Table 6. Oakland Tier 2 SSTLs for Merritt Sands

Medium	Exposure Pathway	Land Use	Type of Risk	Dimethyl-phenol (2,4)	di-n-Butyl-phthalate	di-n-octyl-phthalate	Dipnyclohexene (2,4)	Dioxane (1,4)	Ethylbenzene	Ethylene Dibromide	Flouanthene
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic				1.4E+01	1.4E+02		1.2E+00	
			Hazard	1.3E+03	6.5E+03	1.3E+03			6.3E+03	3.3E+00	2.6E+03
		Commercial/ Industrial	Carcinogenic				6.0E+01	5.6E+02		5.2E+00	
			Hazard	1.3E+04	6.8E+04	1.4E+04			6.3E+04	3.1E+01	2.7E+04
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic				SAT	SAT		2.9E+00	
			Hazard	SAT	SAT	SAT			SAT	8.1E-01	SAT
		Commercial/ Industrial	Carcinogenic				SAT	SAT		4.6E+01	
			Hazard	SAT	SAT	SAT			SAT	2.4E+01	SAT
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic				SAT	SAT		1.6E+01	
			Hazard	SAT	SAT	SAT			SAT	5.4E+00	SAT
		Commercial/ Industrial	Carcinogenic				SAT	SAT		6.2E+01	
			Hazard	SAT	SAT	SAT			SAT	3.2E+01	SAT
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic				3.3E-02	SAT	3.8E+01	3.8E-04	
			Hazard	9.9E+00	SAT	SAT			3.8E+01	3.8E-04	SAT
		Commercial/ Industrial	Carcinogenic				1.4E-01	SAT	3.8E+01	3.8E-04	
			Hazard	6.5E+01	SAT	SAT			3.8E+01	3.8E-04	SAT
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic				>SOL	>SOL		5.9E+00	
			Hazard	>SOL	>SOL	>SOL			>SOL	1.6E+00	>SOL
		Commercial/ Industrial	Carcinogenic				>SOL	>SOL		9.3E+01	
			Hazard	>SOL	>SOL	>SOL			>SOL	4.8E+01	>SOL
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic				>SOL	>SOL		1.8E+02	
			Hazard	>SOL	>SOL	>SOL			>SOL	6.0E+01	>SOL
		Commercial/ Industrial	Carcinogenic				>SOL	>SOL		6.9E+02	
			Hazard	>SOL	>SOL	>SOL			>SOL	3.5E+02	>SOL
	Ingestion of Groundwater	Residential	Carcinogenic				2.2E-03	>SOL	7.0E-01	5.0E-05	
			Hazard	3.1E-01	1.6E+00	>SOL			7.0E-01	5.0E-05	>SOL
		Commercial/ Industrial	Carcinogenic				9.2E-03	>SOL	7.0E-01	5.0E-05	
			Hazard	2.0E+00	1.0E+01	>SOL			7.0E-01	5.0E-05	>SOL
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic				6.4E-02	>SOL		5.9E-03	
			Hazard	2.7E+00	7.3E+00	2.1E-03			3.6E+00	1.7E-02	>SOL

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 6. Oakland Tier 2 SSTLs for Merritt Sands

Medium	Exposure Pathway	Land Use	Type of Risk	Fluorene	Indeno-(1,2,3-CD)-pyrene	Mercury	Methanol	Methyl ethyl ketone	Methylene Chloride	Methyl-napthalene (2-)	MTBE	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic		3.7E+00				3.0E+02			
			Hazard	2.6E+03		5.8E+00	2.9E+04	3.1E+04	3.9E+03	2.5E+03	3.3E+02	
		Commercial/ Industrial	Carcinogenic		1.6E+01					1.3E+03		
			Hazard	2.7E+04		5.5E+01	2.7E+05	2.7E+05	4.0E+04	2.6E+04	3.4E+03	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic		SAT				1.3E+01			
			Hazard	SAT		1.2E+01	5.6E+04	7.9E+03	8.0E+02	SAT	4.8E+03	
		Commercial/ Industrial	Carcinogenic		SAT					2.1E+02		
			Hazard	SAT		SAT	SAT	SAT	SAT	SAT	SAT	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic		SAT				7.6E+01			
			Hazard	SAT		8.2E+01	SAT	SAT	SAT	SAT	SAT	
		Commercial/ Industrial	Carcinogenic		SAT				2.9E+02			
			Hazard	SAT		4.7E+02	SAT	SAT	SAT	SAT	SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic		SAT	1.5E+00			1.6E-02		4.0E-02	
			Hazard	SAT		1.5E+00	9.9E+00	1.8E+01	1.6E-02	7.7E+02	4.0E-02	
		Commercial/ Industrial	Carcinogenic		SAT	1.5E+00			1.6E-02		4.0E-02	
			Hazard	SAT		1.5E+00	6.5E+01	1.2E+02	1.6E-02	SAT	4.0E-02	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic		>SOL				7.6E+01			
			Hazard	>SOL		3.4E-01	6.6E+05	6.2E+04	4.5E+03	>SOL	2.5E+04	
		Commercial/ Industrial	Carcinogenic		>SOL				1.2E+03			
			Hazard	>SOL		9.8E+00	>SOL	>SOL	>SOL	>SOL	>SOL	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic		>SOL				5.8E+03			
			Hazard	>SOL		5.4E+01	>SOL	>SOL	>SOL	>SOL	>SOL	
		Commercial/ Industrial	Carcinogenic		>SOL				>SOL			
			Hazard	>SOL		3.1E+02	>SOL	>SOL	>SOL	>SOL	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic		>SOL	2.0E-03			5.0E-03		1.3E-02	
			Hazard	6.3E-01		2.0E-03	7.8E+00	9.4E+00	5.0E-03	6.3E-01	1.3E-02	
		Commercial/ Industrial	Carcinogenic		>SOL	2.0E-03			5.0E-03		1.3E-02	
			Hazard	>SOL		2.0E-03	5.1E+01	6.1E+01	5.0E-03	4.1E+00	1.3E-02	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic		>SOL				1.3E+00			
			Hazard	3.1E-01		3.6E-02	2.2E+02	1.5E+02	1.6E+01	6.1E-01	1.5E+00	

\*Italicized concentrations based on California MCLs  
 SAT = RBSL exceeds saturated soil concentration of chemical  
 >SOL = RBSL exceeds solubility of chemical in water

Table 6. Oakland Tier 2 SSTLs for Merritt Sands

Medium	Exposure Pathway	Land Use	Type of Risk	Naphthalene	Nickel	Nitrobenzene	PCBs	Phenanthrene	Phenol	Pyrene	Pyridine	Selenium	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic		3.4E+05	7.8E+03	6.5E-01				4.1E+03		
			Hazard	2.5E+03	1.5E+03		1.4E+00	1.9E+04	3.8E+04	2.0E+03		3.8E+02	
		Commercial/ Industrial	Carcinogenic		1.3E+06	3.3E+04	3.3E+00					1.7E+04	
			Hazard	2.5E+04	3.4E+04		1.8E+01	2.0E+05	3.9E+05	2.0E+04			8.5E+03
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			SAT	6.9E+02					3.0E+04	
			Hazard	SAT			SAT	SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic			SAT	SAT					4.8E+05	
			Hazard	SAT			SAT	SAT	SAT	SAT			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			SAT	SAT					1.6E+05	
			Hazard	SAT			SAT	SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic			SAT	SAT					6.1E+05	
			Hazard	SAT			SAT	SAT	SAT	SAT			
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	5.8E+00	9.5E+01	1.4E+01	2.2E+01					6.1E+00	3.7E+00
			Hazard	5.8E+00	9.5E+01		2.2E+01	SAT	5.1E+01	SAT			3.7E+00
		Commercial/ Industrial	Carcinogenic	5.8E+00	9.5E+01	6.1E+01	2.2E+01					2.6E+01	3.7E+00
			Hazard	5.8E+00	9.5E+01		2.2E+01	SAT	3.3E+02	SAT			3.7E+00
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			>SOL	2.4E-01					4.9E+04	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic			>SOL	>SOL					7.8E+05	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			>SOL	>SOL					7.7E+05	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic			>SOL	>SOL					>SOL	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL			
	Ingestion of Groundwater	Residential	Carcinogenic	2.0E-02	1.0E-01	1.3E+00	5.0E-04					6.7E-01	5.0E-02
			Hazard	2.0E-02	1.0E-01		5.0E-04	>SOL	9.4E+00	>SOL			5.0E-02
		Commercial/ Industrial	Carcinogenic	2.0E-02	1.0E-01	5.7E+00	5.0E-04					2.9E+00	5.0E-02
			Hazard	2.0E-02	1.0E-01		5.0E-04	>SOL	6.1E+01	>SOL			5.0E-02
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			2.8E+01	1.6E-05				2.6E+01		
			Hazard	1.5E+00	7.9E+00		4.4E-05	>SOL	1.5E+02	>SOL		2.0E+00	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 6. Oakland Tier 2 SSTLs for Merritt Sands

Medium	Exposure Pathway	Land Use	Type of Risk	Silver	Styrene	Tetrachloroethane (1,1,2,2-)	Tetrachloroethylene (PCE)	Tetraethyl Lead	Toluene	Trichloroethane (1,1,1-)	Trichloroethane (1,1,2-)	
Surficial Soil [mg/kg]	Ingestion/Dermal/Inhalation	Residential	Carcinogenic			1.4E+01	8.1E+01				5.2E+01	
			Hazard	3.8E+02	1.2E+04	1.5E+03	5.8E+02	6.5E-03	1.1E+04	2.2E+03	2.3E+02	
		Commercial/Industrial	Carcinogenic			5.6E+01	3.4E+02					2.1E+02
			Hazard	8.5E+03	1.2E+05	1.4E+04	5.4E+03	6.8E-02	9.4E+04	2.3E+04	2.2E+03	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			7.5E+00	3.0E+00				5.6E+00	
			Hazard		SAT	1.0E+03	1.2E+01		3.7E+02	2.6E+02	3.2E+01	
		Commercial/Industrial	Carcinogenic			1.2E+02	4.8E+01					9.0E+01
			Hazard		SAT	SAT	SAT		SAT	SAT	9.2E+02	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			4.3E+01	1.7E+01					3.2E+01
			Hazard		SAT	SAT	8.3E+01		SAT	SAT	2.1E+02	
		Commercial/Industrial	Carcinogenic			1.6E+02	6.5E+01					1.2E+02
			Hazard		SAT	SAT	SAT		SAT	SAT	1.2E+03	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	<i>1.2E+01</i>	<i>1.1E+01</i>	1.5E-02	1.3E-01	SAT	4.2E+00	3.7E+00	4.3E-02	
			Hazard	<i>1.2E+01</i>	<i>1.1E+01</i>	1.5E-02	1.3E-01	SAT	4.2E+00	3.7E+00	4.3E-02	
		Commercial/Industrial	Carcinogenic	<i>1.2E+01</i>	<i>1.1E+01</i>	1.5E-02	1.3E-01	SAT	4.2E+00	3.7E+00	4.3E-02	
			Hazard	<i>1.2E+01</i>	<i>1.1E+01</i>	1.5E-02	1.3E-01	SAT	4.2E+00	3.7E+00	4.3E-02	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			7.8E+00	3.1E+00				1.1E+01	
			Hazard		>SOL	1.1E+03	1.3E+01		2.8E+02	3.7E+02	5.9E+01	
		Commercial/Industrial	Carcinogenic			1.2E+02	5.0E+01					1.7E+02
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	1.7E+03	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			2.2E+02	>SOL					4.9E+02
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	3.3E+03	
		Commercial/Industrial	Carcinogenic			8.5E+02	>SOL					1.9E+03
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
			Hazard	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
		Commercial/Industrial	Carcinogenic	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
			Hazard	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
Water Used for Recreation [mg/l]	Ingestion/Dermal	Residential	Carcinogenic			4.5E-02	6.0E-02				1.8E-01	
			Hazard	2.1E+00	9.3E+00	4.9E+00	5.3E-01	6.7E-06	1.1E+01	4.3E+00	7.8E-01	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 6. Oakland Tier 2 SSTLs for Merritt Sands

Medium	Exposure Pathway	Land Use	Type of Risk	Trichloroethylene (TCE)	Vanadium	Vinyl Chloride	Xylenes	Zinc
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	2.6E+02		6.9E+00		
			Hazard	3.5E+02	5.4E+02		6.0E+04	2.3E+04
		Commercial/ Industrial	Carcinogenic	1.1E+03		2.8E+01		
			Hazard	3.3E+03	1.2E+04		3.8E+05	5.1E+05
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	1.1E+01		1.3E-02		
			Hazard	1.3E+01			SAT	
		Commercial/ Industrial	Carcinogenic	1.7E+02		2.0E-01		
			Hazard	3.7E+02			SAT	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	6.1E+01		7.1E-02		
			Hazard	8.5E+01			SAT	
		Commercial/ Industrial	Carcinogenic	2.3E+02		2.7E-01		
			Hazard	4.9E+02			SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	1.3E-01		2.9E-03	6.4E+01	
			Hazard	1.3E-01	1.6E+03	2.9E-03	6.4E+01	4.2E+03
		Commercial/ Industrial	Carcinogenic	1.3E-01		2.9E-03	6.4E+01	
			Hazard	1.3E-01	1.0E+04	2.9E-03	6.4E+01	2.8E+04
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	9.6E+00		6.0E-02		
			Hazard	1.1E+01			>SOL	
		Commercial/ Industrial	Carcinogenic	1.5E+02		9.6E-01		
			Hazard	3.3E+02			>SOL	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL		1.2E+01		
			Hazard	>SOL			>SOL	
		Commercial/ Industrial	Carcinogenic	>SOL		4.7E+01		
			Hazard	>SOL			>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03		5.0E-04	1.8E+00	
			Hazard	5.0E-03	1.1E-01	5.0E-04	1.8E+00	4.7E+00
		Commercial/ Industrial	Carcinogenic	5.0E-03		5.0E-04	1.8E+00	
			Hazard	5.0E-03	7.2E-01	5.0E-04	1.8E+00	3.1E+01
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	4.6E-02		2.6E-02		
			Hazard	7.2E-02	2.8E+00		6.6E+01	1.2E+02

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 7. Oakland Tier 2 SSTLs for Sandy Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Acenaphthene	Acenaphthylene	Acetone	Anthracene	Arsenic	Barium	Benz(a)anthracene	Benzene	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic					3.2E+00		2.5E+00	2.7E+01	
			Hazard	3.1E+03	3.1E+03	4.8E+03	1.6E+04	2.0E+01	5.2E+03		8.2E+01	
		Commercial/ Industrial	Carcinogenic					1.5E+01		7.9E+00	8.5E+01	
			Hazard	2.0E+04	2.0E+04	3.0E+04	1.0E+05	2.5E+02	9.4E+04		5.2E+02	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic							SAT	1.1E+00	
			Hazard	SAT	SAT	3.3E+03	SAT			SAT	3.6E+00	
		Commercial/ Industrial	Carcinogenic							SAT	1.7E+01	
			Hazard	SAT	SAT	9.7E+04	SAT				1.1E+02	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic							SAT	2.0E+01	
			Hazard	SAT	SAT	5.7E+04	SAT			SAT	8.0E+01	
		Commercial/ Industrial	Carcinogenic							SAT	7.7E+01	
			Hazard	SAT	SAT	SAT	SAT				4.7E+02	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic						8.9E+00	2.5E+02	2.0E+01	6.5E-03
			Hazard	SAT	SAT	1.6E+00	SAT	8.9E+00	2.5E+02		6.5E-03	
		Commercial/ Industrial	Carcinogenic					8.9E+00	2.5E+02	SAT	6.5E-03	
			Hazard	SAT	SAT	1.0E+01	SAT	8.9E+00	2.5E+02		6.5E-03	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic							>SOL	3.4E+00	
			Hazard	>SOL	>SOL	2.2E+04	>SOL				1.1E+01	
		Commercial/ Industrial	Carcinogenic							>SOL	5.3E+01	
			Hazard	>SOL	>SOL	6.2E+05	>SOL				3.2E+02	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic							>SOL	1.0E+03	
			Hazard	>SOL	>SOL	>SOL	>SOL				>SOL	
		Commercial/ Industrial	Carcinogenic							>SOL	>SOL	
			Hazard	>SOL	>SOL	>SOL	>SOL				>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic						5.0E-02	1.0E+00	5.6E-04	1.0E-03
			Hazard	9.4E-01	9.4E-01	1.6E+00	>SOL	5.0E-02	1.0E+00		1.0E-03	
		Commercial/ Industrial	Carcinogenic					5.0E-02	1.0E+00	2.4E-03	1.0E-03	
			Hazard	>SOL	>SOL	1.0E+01	>SOL	5.0E-02	1.0E+00		1.0E-03	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic					2.0E-02		1.6E-04	6.3E-02	
			Hazard	1.1E+00	1.7E+00	4.2E+01	>SOL	1.2E-01	2.8E+01		1.8E-01	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 7. Oakland Tier 2 SSTLs for Sandy Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Beryllium	Bis-(2-ethylhexyl) phthalate	Butyl benzyl phthalate
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	2.5E-01	2.5E+00		2.5E+00	4.5E+04	3.6E+02	
			Hazard			2.1E+02		3.7E+02	1.0E+03	1.0E+04
		Commercial/ Industrial	Carcinogenic	7.9E-01	7.9E+00		7.9E+00	1.7E+05	1.1E+03	
			Hazard			1.4E+03		6.8E+03	6.8E+03	6.8E+04
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
		Commercial/ Industrial	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
		Commercial/ Industrial	Carcinogenic	SAT	SAT		SAT		SAT	
			Hazard			SAT		SAT		
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	1.9E+01	SAT		SAT	1.9E+01	SAT	
			Hazard	1.9E+01		SAT		1.9E+01	SAT	SAT
		Commercial/ Industrial	Carcinogenic	1.9E+01	SAT		SAT	1.9E+01	SAT	
			Hazard	1.9E+01		SAT		1.9E+01	SAT	SAT
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
		Commercial/ Industrial	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
		Commercial/ Industrial	Carcinogenic	>SOL	>SOL		>SOL		>SOL	
			Hazard			>SOL		>SOL		
	Ingestion of Groundwater	Residential	Carcinogenic	2.0E-04	5.6E-04		5.6E-04	4.0E-03	8.0E-02	
			Hazard	2.0E-04		>SOL		4.0E-03	3.1E-01	>SOL
		Commercial/ Industrial	Carcinogenic	2.0E-04	>SOL		>SOL	4.0E-03	>SOL	
			Hazard	2.0E-04		>SOL		4.0E-03	>SOL	>SOL
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	1.1E-05	1.1E-04		1.2E-04		>SOL	
			Hazard			>SOL		2.0E+00	>SOL	>SOL

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 7. Oakland Tier 2 SSTLs for Sandy Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Cadmium	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroform	Chromium (III)	Chromium (VI)
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	2.1E+04		1.8E+01		9.1E+01		1.3E+01
			Hazard	3.7E+01	1.3E+03	3.3E+01	8.0E+02	4.8E+02	7.4E+04	3.7E+02
		Commercial/ Industrial	Carcinogenic	7.9E+04		5.7E+01		2.9E+02		8.7E+01
			Hazard	6.8E+02	6.7E+03	2.1E+02	4.8E+03	3.0E+03	1.4E+06	6.8E+03
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			4.1E-01		5.3E+00		
			Hazard		1.7E+00	6.8E-01	1.0E+00	2.0E+01		
		Commercial/ Industrial	Carcinogenic			6.5E+00		8.5E+01		
			Hazard		5.0E+01	2.0E+01	3.0E+01	5.8E+02		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			7.6E+00		9.9E+01		
			Hazard		3.8E+01	1.5E+01	2.3E+01	4.4E+02		
		Commercial/ Industrial	Carcinogenic			2.9E+01		3.8E+02		
			Hazard		2.2E+02	8.8E+01	1.3E+02	2.5E+03		
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	<i>2.3E+00</i>		8.8E-03	2.1E-01	4.7E-01		5.8E+00
			Hazard	<i>2.3E+00</i>	8.5E+00	8.8E-03	2.1E-01	4.7E-01	1.7E+08	5.8E+00
		Commercial/ Industrial	Carcinogenic	<i>2.3E+00</i>		8.8E-03	2.1E-01	4.7E-01		5.8E+00
			Hazard	<i>2.3E+00</i>	5.6E+01	8.8E-03	2.1E-01	4.7E-01	1.1E+09	5.8E+00
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			1.3E+00		1.9E+01		
			Hazard		1.2E+01	2.2E+00	2.1E+01	7.2E+01		
		Commercial/ Industrial	Carcinogenic			2.1E+01		3.1E+02		
			Hazard		3.6E+02	6.4E+01	>SOL	2.1E+03		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			5.0E+02		5.4E+03		
			Hazard		>SOL	>SOL	>SOL	>SOL		
		Commercial/ Industrial	Carcinogenic			>SOL		>SOL		
			Hazard		>SOL	>SOL	>SOL	>SOL		
	Ingestion of Groundwater	Residential	Carcinogenic	<i>5.0E-03</i>		5.0E-04	7.0E-02	1.0E-01		5.0E-02
			Hazard	<i>5.0E-03</i>	1.6E+00	5.0E-04	7.0E-02	1.0E-01	1.6E+01	5.0E-02
		Commercial/ Industrial	Carcinogenic	<i>5.0E-03</i>		5.0E-04	7.0E-02	1.0E-01		5.0E-02
			Hazard	<i>5.0E-03</i>	1.0E+01	5.0E-04	7.0E-02	1.0E-01	1.0E+02	5.0E-02
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			4.1E-02		3.9E-01		6.8E-02
			Hazard	2.0E-01	9.4E+00	7.1E-02	1.2E+00	1.9E+00	3.8E+02	1.9E+00

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water



Table 7. Oakland Tier 2 SSTLs for Sandy Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Chrysene	Copper	Cresol(m)	Cresol(o)	Cresol(p)	Cyanide	Dibenz(a,h)-anthracene	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	2.5E+01						7.4E-01	
			Hazard		2.8E+03	2.6E+03	2.6E+03	2.6E+02	3.0E+03		
		Commercial/ Industrial	Carcinogenic	7.9E+01							2.3E+00
			Hazard		5.0E+04	1.7E+04	1.7E+04	1.7E+03	5.5E+04		
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	SAT						SAT	
			Hazard			SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	SAT	1.2E+00					1.2E+01	5.7E+01
			Hazard		1.2E+00	7.0E+00	7.3E+00	6.5E-01	1.2E+01		
		Commercial/ Industrial	Carcinogenic	SAT	1.2E+00				1.2E+01	SAT	
			Hazard		1.2E+00	4.5E+01	4.7E+01	4.3E+00	1.2E+01		
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	>SOL						>SOL	
			Hazard			>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
	Ingestion of Groundwater	Residential	Carcinogenic	>SOL	1.3E+00				2.0E-01	1.6E-04	
			Hazard		1.3E+00	7.8E-01	7.8E-01	7.8E-02	2.0E-01		
		Commercial/ Industrial	Carcinogenic	>SOL	1.3E+00				2.0E-01	7.0E-04	
			Hazard		1.3E+00	5.1E+00	5.1E+00	5.1E-01	2.0E-01		
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	>SOL						1.4E-05	
			Hazard		1.5E+01	6.7E+00	6.4E+00	5.9E-01	7.0E+00		

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 7. Oakland Tier 2 SSTLs for Sandy Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Dichloro-ethane (1,1-)	Dichloro-ethane (1,2-) (EDC)	Dichloro-ethylene (1,1-)	Dichloro-ethylene (cis 1,2-)	Dichloro-ethene (trans 1,2)	Dimethylbenz(a)anthracene (7,12)
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	4.8E+02	3.9E+01	4.9E+00			
			Hazard	4.9E+03	1.4E+02	4.3E+02	4.8E+02	9.6E+02	1.6E+03
		Commercial/ Industrial	Carcinogenic	1.5E+03	1.2E+02	1.5E+01			
			Hazard	3.1E+04	8.8E+02	2.7E+03	3.0E+03	6.1E+03	1.0E+04
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	1.4E+01	3.0E+00	1.4E-01			
			Hazard	2.2E+02	1.2E+01	4.3E+00	2.3E+01	2.9E+01	
		Commercial/ Industrial	Carcinogenic	2.2E+02	4.7E+01	2.2E+00			
			Hazard	SAT	3.4E+02	1.2E+02	6.7E+02	8.4E+02	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	2.6E+02	5.5E+01	2.5E+00			
			Hazard	SAT	2.6E+02	9.5E+01	5.1E+02	6.4E+02	
		Commercial/ Industrial	Carcinogenic	9.7E+02	2.1E+02	9.6E+00			
			Hazard	SAT	1.5E+03	5.5E+02	SAT	3.7E+03	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	2.0E-02	1.3E-03	4.2E-02	2.6E-02	6.0E-02	
			Hazard	2.0E-02	1.3E-03	4.2E-02	2.6E-02	6.0E-02	SAT
		Commercial/ Industrial	Carcinogenic	2.0E-02	1.3E-03	4.2E-02	2.6E-02	6.0E-02	
			Hazard	2.0E-02	1.3E-03	4.2E-02	2.6E-02	6.0E-02	SAT
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	6.0E+01	1.1E+01	1.0E+00			
			Hazard	9.4E+02	4.4E+01	3.2E+01	7.5E+01	1.0E+02	
		Commercial/ Industrial	Carcinogenic	9.6E+02	1.7E+02	1.6E+01			
			Hazard	>SOL	1.3E+03	9.2E+02	2.2E+03	3.0E+03	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL	1.8E+03	3.7E+02			
			Hazard	>SOL	8.4E+03	>SOL	>SOL	>SOL	
		Commercial/ Industrial	Carcinogenic	>SOL	6.7E+03	1.4E+03			
			Hazard	>SOL	>SOL	>SOL	>SOL	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	
			Hazard	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	>SOL
		Commercial/ Industrial	Carcinogenic	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	
			Hazard	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	>SOL
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	2.1E+00	2.4E-01	1.3E-02			
			Hazard	1.9E+01	7.2E-01	1.2E+00	1.8E+00	3.5E+00	>SOL

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 7. Oakland Tier 2 SSTLs for Sandy Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Dimethyl-phenol (2,4)	di-n-Butyl-phthalate	di-n-octyl-phthalate	Dinitro-toluene (2,4)	Dioxane (1,4)	Ethyl-benzene	Ethylene Dibromide	Flouaran-thene
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic				9.6E+00	1.0E+02		8.4E-01	
			Hazard	1.0E+03	5.2E+03	1.0E+03		5.1E+03	2.7E+00	2.1E+03	
		Commercial/ Industrial	Carcinogenic				3.0E+01	3.2E+02		2.6E+00	
			Hazard	6.7E+03	3.4E+04	6.8E+03		3.3E+04	1.7E+01	1.4E+04	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic				SAT	SAT		4.6E+00	
			Hazard	SAT	SAT	SAT		SAT	1.3E+00	SAT	
		Commercial/ Industrial	Carcinogenic				SAT	SAT		7.4E+01	
			Hazard	SAT	SAT	SAT		SAT	3.8E+01	SAT	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic				SAT	SAT		8.4E+01	
			Hazard	SAT	SAT	SAT		SAT	2.8E+01	SAT	
		Commercial/ Industrial	Carcinogenic				SAT	SAT		3.2E+02	
			Hazard	SAT	SAT	SAT		SAT	1.6E+02	SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic				2.1E-02	SAT	2.4E+01	2.5E-04	
			Hazard	6.3E+00	1.2E+07	SAT		2.4E+01	2.5E-04	SAT	
		Commercial/ Industrial	Carcinogenic				8.9E-02	SAT	2.4E+01	2.5E-04	
			Hazard	4.1E+01	SAT	SAT		2.4E+01	2.5E-04	SAT	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic				>SOL	>SOL		7.0E+00	
			Hazard	>SOL	>SOL	>SOL		>SOL	2.0E+00	>SOL	
		Commercial/ Industrial	Carcinogenic				>SOL	>SOL		1.1E+02	
			Hazard	>SOL	>SOL	>SOL		>SOL	5.7E+01	>SOL	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic				>SOL	>SOL		6.8E+02	
			Hazard	>SOL	>SOL	>SOL		>SOL	2.2E+02	>SOL	
		Commercial/ Industrial	Carcinogenic				>SOL	>SOL		2.6E+03	
			Hazard	>SOL	>SOL	>SOL		>SOL	1.3E+03	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic				2.2E-03	>SOL	7.0E-01	5.0E-05	
			Hazard	3.1E-01	1.6E+00	>SOL		7.0E-01	5.0E-05	>SOL	
		Commercial/ Industrial	Carcinogenic				9.2E-03	>SOL	7.0E-01	5.0E-05	
			Hazard	2.0E+00	1.0E+01	>SOL		7.0E-01	5.0E-05	>SOL	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic				6.4E-02	>SOL		5.9E-03	
			Hazard	2.7E+00	7.3E+00	2.1E-03		3.6E+00	1.7E-02	>SOL	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 7. Oakland Tier 2 SSTLs for Sandy Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Fluorene	Indeno- (1,2,3-CD)- pyrene	Mercury	Methanol	Methyl ethyl ketone	Methylene Chloride	Methyl- naphthalene (2-)	MTBE	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic		2.5E+00				2.1E+02			
			Hazard	2.1E+03		5.0E+00	2.4E+04	2.7E+04	3.1E+03	2.1E+03	2.6E+02	
		Commercial/ Industrial	Carcinogenic		7.9E+00					6.6E+02		
			Hazard	1.4E+04		3.2E+01	1.6E+05	1.7E+05	2.0E+04	1.3E+04	1.7E+03	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic		SAT				2.2E+01			
			Hazard	SAT		1.3E+01	1.0E+05	1.4E+04	1.3E+03	SAT	8.1E+03	
		Commercial/ Industrial	Carcinogenic		SAT					3.5E+02		
			Hazard	SAT			SAT	SAT	SAT	SAT	SAT	SAT
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic		SAT					4.1E+02		
			Hazard	SAT		2.8E+02	SAT	SAT	SAT	SAT	SAT	SAT
		Commercial/ Industrial	Carcinogenic		SAT					1.6E+03		
			Hazard	SAT		1.6E+03	SAT	SAT	SAT	SAT	SAT	SAT
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic		SAT	6.3E-01				1.0E-02		2.7E-02
			Hazard	SAT		6.3E-01	7.5E+00	1.3E+01	1.0E-02	4.9E+02	2.7E-02	
		Commercial/ Industrial	Carcinogenic		SAT	6.3E-01				1.0E-02		2.7E-02
			Hazard	SAT		6.3E-01	4.9E+01	8.4E+01	1.0E-02	SAT	2.7E-02	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic		>SOL				1.3E+02			
			Hazard	>SOL		8.4E-01	6.6E+05	6.6E+04	7.5E+03	>SOL	3.0E+04	
		Commercial/ Industrial	Carcinogenic		>SOL					2.0E+03		
			Hazard	>SOL		2.4E+01	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic		>SOL					>SOL		
			Hazard	>SOL		3.1E+02	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
		Commercial/ Industrial	Carcinogenic		>SOL					>SOL		
			Hazard	>SOL		1.8E+03	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
	Ingestion of Groundwater	Residential	Carcinogenic		>SOL	2.0E-03				5.0E-03		1.3E-02
			Hazard	6.3E-01		2.0E-03	7.8E+00	9.4E+00	5.0E-03	6.3E-01	1.3E-02	
		Commercial/ Industrial	Carcinogenic		>SOL	2.0E-03				5.0E-03		1.3E-02
			Hazard	>SOL		2.0E-03	5.1E+01	6.1E+01	5.0E-03	4.1E+00	1.3E-02	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic		>SOL				1.3E+00			
			Hazard	3.1E-01		3.6E-02	2.2E+02	1.5E+02	1.6E+01	6.1E-01	1.5E+00	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 7. Oakland Tier 2 SSTLs for Sandy Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Naphthalene	Nickel	Nitrobenzene	PCBs	Phenanthrene	Phenol	Pyrene	Pyridine	Selenium	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic		3.4E+05	5.6E+03	5.0E-01				2.9E+03		
			Hazard	2.1E+03	1.5E+03		1.2E+00	1.6E+04	3.1E+04	1.6E+03		3.7E+02	
		Commercial/ Industrial	Carcinogenic		1.3E+06	1.8E+04	1.9E+00					9.3E+03	
			Hazard	1.3E+04	2.7E+04		1.0E+01	1.0E+05	2.0E+05	1.0E+04			6.8E+03
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			SAT	1.1E+03					4.7E+04	
			Hazard	SAT			SAT	SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic			SAT	SAT					7.4E+05	
			Hazard	SAT			SAT	SAT	SAT	SAT			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic				SAT	SAT				4.5E+05	
			Hazard	SAT			SAT	SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic				SAT	SAT				SAT	
			Hazard	SAT			SAT	SAT	SAT	SAT			
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	3.7E+00	4.0E+01	9.2E+00	1.4E+01					3.9E+00	1.6E+00
			Hazard	3.7E+00	4.0E+01		1.4E+01	SAT	3.4E+01	SAT			1.6E+00
		Commercial/ Industrial	Carcinogenic	3.7E+00	4.0E+01	3.9E+01	1.4E+01					1.7E+01	1.6E+00
			Hazard	3.7E+00	4.0E+01		1.4E+01	SAT	2.2E+02	SAT			1.6E+00
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			>SOL	2.8E-01					5.0E+04	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic			>SOL	>SOL					8.0E+05	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL	>SOL		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			>SOL	>SOL					>SOL	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic			>SOL	>SOL					>SOL	
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL	>SOL		
	Ingestion of Groundwater	Residential	Carcinogenic	2.0E-02	1.0E-01	1.3E+00	5.0E-04					6.7E-01	5.0E-02
			Hazard	2.0E-02	1.0E-01		5.0E-04	>SOL	9.4E+00	>SOL			5.0E-02
		Commercial/ Industrial	Carcinogenic	2.0E-02	1.0E-01	5.7E+00	5.0E-04					2.9E+00	5.0E-02
			Hazard	2.0E-02	1.0E-01		5.0E-04	>SOL	6.1E+01	>SOL			5.0E-02
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			2.8E+01	1.6E-05				2.6E+01		
			Hazard	1.5E+00	7.9E+00		4.4E-05	>SOL	1.5E+02	>SOL		2.0E+00	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 7. Oakland Tier 2 SSTLs for Sandy Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Silver	Styrene	Tetrachloro-ethane (1,1,2,2-)	Tetrachloro-ethylene (PCE)	Tetraethyl Lead	Toluene	Trichloro-ethane (1,1,1-)	Trichloro-ethane (1,1,2-)	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic			1.0E+01	5.7E+01				3.8E+01	
			Hazard	3.7E+02	1.0E+04	1.3E+03	4.8E+02	5.2E-03	9.0E+03	1.8E+03	1.9E+02	
		Commercial/ Industrial	Carcinogenic			3.3E+01	1.8E+02					1.2E+02
			Hazard	6.8E+03	6.4E+04	8.2E+03	3.0E+03	3.4E-02	5.6E+04	1.2E+04	1.2E+03	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			1.2E+01	4.6E+00				8.9E+00	
			Hazard		SAT	1.6E+03	1.9E+01		5.7E+02	4.0E+02	5.0E+01	
		Commercial/ Industrial	Carcinogenic			1.9E+02	7.3E+01					1.4E+02
			Hazard		SAT	SAT	SAT		SAT	SAT	1.5E+03	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			2.1E+02	8.6E+01				1.6E+02	
			Hazard		SAT	SAT	4.2E+02		SAT	SAT	1.1E+03	
		Commercial/ Industrial	Carcinogenic			8.0E+02	3.3E+02					6.2E+02
			Hazard		SAT	SAT	SAT		SAT	SAT	SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	<i>5.1E+00</i>	<i>7.2E+00</i>	9.5E-03	7.8E-02	6.9E+00	2.7E+00	2.3E+00	2.8E-02	
			Hazard	<i>5.1E+00</i>	<i>7.2E+00</i>	9.5E-03	7.8E-02	6.9E+00	2.7E+00	2.3E+00	2.8E-02	
		Commercial/ Industrial	Carcinogenic	<i>5.1E+00</i>	<i>7.2E+00</i>	9.5E-03	7.8E-02	6.9E+00	2.7E+00	2.3E+00	2.8E-02	
			Hazard	<i>5.1E+00</i>	<i>7.2E+00</i>	9.5E-03	7.8E-02	6.9E+00	2.7E+00	2.3E+00	2.8E-02	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			9.2E+00	1.2E+01				1.4E+01	
			Hazard		>SOL	1.3E+03	5.1E+01		>SOL	>SOL	8.0E+01	
		Commercial/ Industrial	Carcinogenic			1.5E+02	2.0E+02				2.3E+02	
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	2.3E+03	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			8.1E+02	>SOL				2.0E+03	
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	>SOL	
		Commercial/ Industrial	Carcinogenic			>SOL	>SOL				>SOL	
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
			Hazard	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
		Commercial/ Industrial	Carcinogenic	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
			Hazard	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			4.5E-02	6.0E-02				1.8E-01	
			Hazard	2.1E+00	9.3E+00	4.9E+00	5.3E-01	6.7E-06	1.1E+01	4.3E+00	7.8E-01	

\*Italicized concentrations based on California MCLs  
 SAT = RBSL exceeds saturated soil concentration of chemical  
 >SOL = RBSL exceeds solubility of chemical in water

Table 7. Oakland Tier 2 SSTLs for Sandy Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Trichloroethylene (TCE)	Vanadium	Vinyl Chloride	Xylenes	Zinc
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	1.9E+02		5.0E+00		
			Hazard	2.9E+02	5.2E+02	5.6E+04	2.2E+04	
		Commercial/ Industrial	Carcinogenic	5.9E+02		1.6E+01		
			Hazard	1.8E+03	9.5E+03	3.1E+05	4.1E+05	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	1.7E+01		1.8E-02		
			Hazard	2.0E+01		SAT		
		Commercial/ Industrial	Carcinogenic	2.6E+02		2.8E-01		
			Hazard	5.7E+02		SAT		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	3.1E+02		3.3E-01		
			Hazard	4.3E+02		SAT		
		Commercial/ Industrial	Carcinogenic	1.2E+03		1.2E+00		
			Hazard	2.5E+03		SAT		
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	8.2E-02		1.6E-03	4.0E+01	
			Hazard	8.2E-02	6.7E+02	1.6E-03	4.0E+01	1.8E+03
		Commercial/ Industrial	Carcinogenic	8.2E-02		1.6E-03	4.0E+01	
			Hazard	8.2E-02	4.4E+03	1.6E-03	4.0E+01	1.2E+04
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	2.9E+01		2.8E-01		
			Hazard	3.4E+01		>SOL		
		Commercial/ Industrial	Carcinogenic	4.6E+02		4.4E+00		
			Hazard	9.9E+02		>SOL		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL		1.0E+02		
			Hazard	>SOL		>SOL		
		Commercial/ Industrial	Carcinogenic	>SOL		3.9E+02		
			Hazard	>SOL		>SOL		
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03		5.0E-04	1.8E+00	
			Hazard	5.0E-03	1.1E-01	5.0E-04	1.8E+00	4.7E+00
		Commercial/ Industrial	Carcinogenic	5.0E-03		5.0E-04	1.8E+00	
			Hazard	5.0E-03	7.2E-01	5.0E-04	1.8E+00	3.1E+01
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	4.6E-02		2.6E-02		
			Hazard	7.2E-02	2.8E+00	6.6E+01	1.2E+02	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 8. Oakland Tier 2 SSTLs for Clayey Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Acenaphthene	Acenaphthylene	Acetone	Anthracene	Arsenic	Barium	Benz(a)-anthracene	Benzene	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic					2.6E+00		1.7E+00	1.9E+01	
			Hazard	2.3E+03	2.3E+03	3.7E+03	1.2E+04	1.8E+01	5.0E+03		6.3E+01	
		Commercial/ Industrial	Carcinogenic					9.5E+00		4.3E+00	4.9E+01	
			Hazard	1.1E+04	1.1E+04	1.8E+04	5.6E+04	1.5E+02	7.1E+04		3.0E+02	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic							SAT	1.9E+00	
			Hazard	SAT	SAT	6.3E+03	SAT			SAT	6.2E+00	
		Commercial/ Industrial	Carcinogenic								SAT	3.0E+01
			Hazard	SAT	SAT	1.8E+05	SAT				SAT	1.8E+02
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic								SAT	1.6E+02
			Hazard	SAT	SAT	1.2E+05	SAT				SAT	6.5E+02
		Commercial/ Industrial	Carcinogenic								SAT	6.2E+02
			Hazard	SAT	SAT	SAT	SAT					SAT
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic						4.4E+00	1.3E+02	1.4E+01	4.5E-03
			Hazard	4.0E+02	2.7E+02	1.5E+00	SAT	4.4E+00	1.3E+02		5.8E+01	4.5E-03
		Commercial/ Industrial	Carcinogenic					4.4E+00	1.3E+02		5.8E+01	4.5E-03
			Hazard	SAT	SAT	9.7E+00	SAT	4.4E+00	1.3E+02			4.5E-03
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic							>SOL	5.6E+00	
			Hazard	>SOL	>SOL	2.1E+04	>SOL				1.9E+01	
		Commercial/ Industrial	Carcinogenic								>SOL	8.9E+01
			Hazard	>SOL	>SOL	6.2E+05	>SOL				>SOL	5.4E+02
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic								>SOL	>SOL
			Hazard	>SOL	>SOL	9.5E+05	>SOL				>SOL	>SOL
		Commercial/ Industrial	Carcinogenic								>SOL	>SOL
			Hazard	>SOL	>SOL	>SOL	>SOL					>SOL
	Ingestion of Groundwater	Residential	Carcinogenic						5.0E-02	1.0E+00	5.6E-04	1.0E-03
			Hazard	9.4E-01	9.4E-01	1.6E+00	>SOL	5.0E-02	1.0E+00		2.4E-03	1.0E-03
		Commercial/ Industrial	Carcinogenic					5.0E-02	1.0E+00		2.4E-03	1.0E-03
			Hazard	>SOL	>SOL	1.0E+01	>SOL	5.0E-02	1.0E+00			1.0E-03
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic					2.0E-02		1.6E-04	6.3E-02	
			Hazard	1.1E+00	1.7E+00	4.2E+01	>SOL	1.2E-01	2.8E+01		1.8E-01	

\*Halicized concentrations based on California MCLs  
 SAT = RBSL exceeds saturated soil concentration of chemical  
 >SOL = RBSL exceeds solubility of chemical in water



Table 8. Oakland Tier 2 SSTLs for Clayey Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Beryllium	Bis (2-ethylhexyl) phthalate	Butyl benzyl phthalate	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	1.7E-01	1.7E+00		1.7E+00	4.5E+04	2.4E+02		
			Hazard			1.6E+02		3.6E+02	7.8E+02	7.8E+03	
		Commercial/ Industrial	Carcinogenic	4.3E-01	4.3E+00		4.3E+00	1.7E+05	6.2E+02		
			Hazard			7.4E+02		5.1E+03	3.7E+03	3.7E+04	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	SAT	SAT		SAT		SAT		
			Hazard			SAT		SAT			
		Commercial/ Industrial	Carcinogenic	SAT	SAT		SAT		SAT		
			Hazard			SAT		SAT			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	SAT	SAT		SAT		SAT		
			Hazard			SAT		SAT			
		Commercial/ Industrial	Carcinogenic	SAT	SAT		SAT		SAT		
			Hazard			SAT		SAT			
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	1.2E+01	SAT		SAT	9.6E+00	7.3E+04		
			Hazard	1.2E+01		SAT		9.6E+00	SAT	SAT	
		Commercial/ Industrial	Carcinogenic	1.2E+01	SAT		SAT	9.6E+00	SAT		
			Hazard	1.2E+01		SAT		9.6E+00	SAT	SAT	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	>SOL	>SOL		>SOL		>SOL		
			Hazard			>SOL		>SOL			
		Commercial/ Industrial	Carcinogenic	>SOL	>SOL		>SOL		>SOL		
			Hazard			>SOL		>SOL			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL	>SOL		>SOL		>SOL		
			Hazard			>SOL		>SOL			
		Commercial/ Industrial	Carcinogenic	>SOL	>SOL		>SOL		>SOL		
			Hazard			>SOL		>SOL			
	Ingestion of Groundwater	Residential	Carcinogenic	2.0E-04	5.6E-04		5.6E-04	4.0E-03	8.0E-02		
			Hazard	2.0E-04		>SOL		4.0E-03	3.1E-01	>SOL	
		Commercial/ Industrial	Carcinogenic	2.0E-04	>SOL		>SOL	4.0E-03	>SOL		
			Hazard	2.0E-04		>SOL		4.0E-03	>SOL	>SOL	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	1.1E-05	1.1E-04		1.2E-04		>SOL		
			Hazard			>SOL		2.0E+00	>SOL	>SOL	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 8. Oakland Tier 2 SSTLs for Clayey Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Cadmium	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloroform	Chromium (III)	Chromium (VI)
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	2.1E+04		1.2E+01		6.2E+01		1.2E+01
			Hazard	3.6E+01	1.4E+03	2.6E+01	6.6E+02	3.7E+02	7.1E+04	3.6E+02
		Commercial/ Industrial	Carcinogenic	7.9E+04		3.3E+01		1.6E+02		6.6E+01
			Hazard	5.1E+02	6.5E+03	1.2E+02	3.1E+03	1.8E+03	1.0E+06	5.1E+03
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			6.7E-01		9.3E+00		
			Hazard		2.9E+00	1.1E+00	1.9E+00	3.5E+01		
		Commercial/ Industrial	Carcinogenic			1.1E+01		1.5E+02		
			Hazard		8.4E+01	3.2E+01	5.5E+01	1.0E+03		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			6.1E+01		8.1E+02		
			Hazard		3.1E+02	1.2E+02	2.1E+02	3.6E+03		
		Commercial/ Industrial	Carcinogenic			2.3E+02		3.1E+03		
			Hazard		SAT	7.0E+02	SAT	SAT		
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	1.1E+00		5.9E-03	1.6E-01	3.4E-01		2.9E+00
			Hazard	1.1E+00	6.0E+00	5.9E-03	1.6E-01	3.4E-01	8.5E+07	2.9E+00
		Commercial/ Industrial	Carcinogenic	1.1E+00		5.9E-03	1.6E-01	3.4E-01		2.9E+00
			Hazard	1.1E+00	3.9E+01	5.9E-03	1.6E-01	3.4E-01	5.6E+08	2.9E+00
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			3.3E+00		3.1E+01		
			Hazard		2.6E+01	5.5E+00	5.5E+01	1.2E+02		
		Commercial/ Industrial	Carcinogenic			5.2E+01		5.0E+02		
			Hazard		7.5E+02	1.6E+02	>SOL	3.4E+03		
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			>SOL		>SOL		
			Hazard		>SOL	>SOL	>SOL	>SOL		
		Commercial/ Industrial	Carcinogenic			>SOL		>SOL		
			Hazard		>SOL	>SOL	>SOL	>SOL		
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03		5.0E-04	7.0E-02	1.0E-01		5.0E-02
			Hazard	5.0E-03	1.6E+00	5.0E-04	7.0E-02	1.0E-01	1.6E+01	5.0E-02
		Commercial/ Industrial	Carcinogenic	5.0E-03		5.0E-04	7.0E-02	1.0E-01		5.0E-02
			Hazard	5.0E-03	1.0E+01	5.0E-04	7.0E-02	1.0E-01	1.0E+02	5.0E-02
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			4.1E-02		3.9E-01		6.8E-02
			Hazard	2.0E-01	9.4E+00	7.1E-02	1.2E+00	1.9E+00	3.8E+02	1.9E+00

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 8. Oakland Tier 2 SSTLs for Clayey Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Chrysenes	Copper	Cresol(-m)	Cresol(-o)	Cresol(-p)	Cyanide	Dibenz(a,h)-anthracene	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	1.7E+01						4.9E-01	
			Hazard		2.6E+03	1.9E+03	1.9E+03	1.9E+02	2.8E+03		
		Commercial/ Industrial	Carcinogenic	4.3E+01							1.3E+00
			Hazard		3.8E+04	9.2E+03	9.2E+03	9.2E+02	4.1E+04		
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	SAT						SAT	
			Hazard			SAT	SAT	SAT			
		Commercial/ Industrial	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	5.1E+04			
		Commercial/ Industrial	Carcinogenic	SAT							SAT
			Hazard			SAT	SAT	SAT			
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	SAT	1.2E+00					6.2E+00	3.8E+01
			Hazard		1.2E+00	4.8E+00	5.0E+00	4.6E-01	6.2E+00		
		Commercial/ Industrial	Carcinogenic	SAT	1.2E+00					6.2E+00	1.6E+02
			Hazard		1.2E+00	3.2E+01	3.3E+01	3.0E+00	6.2E+00		
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	>SOL						>SOL	
			Hazard			>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
		Commercial/ Industrial	Carcinogenic	>SOL							>SOL
			Hazard			>SOL	>SOL	>SOL			
	Ingestion of Groundwater	Residential	Carcinogenic	>SOL	1.3E+00					2.0E-01	1.6E-04
			Hazard		1.3E+00	7.8E-01	7.8E-01	7.8E-02	2.0E-01		
		Commercial/ Industrial	Carcinogenic	>SOL	1.3E+00					2.0E-01	7.0E-04
			Hazard		1.3E+00	5.1E+00	5.1E+00	5.1E-01	2.0E-01		
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	>SOL						1.4E-05	
			Hazard		1.5E+01	6.7E+00	6.4E+00	5.9E-01	7.0E+00		

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 8. Oakland Tier 2 SSTLs for Clayey Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Dichloro-ethane (1,1-)	Dichloro-ethane (1,2-) (EDC)	Dichloro-ethylene (1,1-)	Dichloro-ethylene (cis 1,2-)	Dichloro-ethylene (trans 1,2-)	Dimethylbenz(a)anthracene (7,12)
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic	3.3E+02	2.7E+01	3.3E+00			
			Hazard	3.8E+03	1.1E+02	3.3E+02	3.7E+02	7.4E+02	1.2E+03
		Commercial/ Industrial	Carcinogenic	8.7E+02	7.1E+01	8.5E+00			
			Hazard	1.8E+04	5.1E+02	1.6E+03	1.8E+03	3.5E+03	5.6E+03
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	2.4E+01	5.4E+00	2.3E-01			
			Hazard	3.8E+02	2.1E+01	7.2E+00	4.0E+01	4.9E+01	
		Commercial/ Industrial	Carcinogenic	3.9E+02	8.6E+01	3.6E+00			
			Hazard	SAT	6.2E+02	2.1E+02	1.2E+03	1.4E+03	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	2.1E+03	4.2E+02	2.1E+01			
			Hazard	SAT	2.0E+03	7.8E+02	SAT	5.2E+03	
		Commercial/ Industrial	Carcinogenic	SAT	1.6E+03	7.8E+01			
			Hazard	SAT	SAT	SAT	SAT	SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	1.4E-02	9.9E-04	2.8E-02	1.9E-02	4.2E-02	
			Hazard	1.4E-02	9.9E-04	2.8E-02	1.9E-02	4.2E-02	SAT
		Commercial/ Industrial	Carcinogenic	1.4E-02	9.9E-04	2.8E-02	1.9E-02	4.2E-02	
			Hazard	1.4E-02	9.9E-04	2.8E-02	1.9E-02	4.2E-02	SAT
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	9.8E+01	1.5E+01	2.3E+00			
			Hazard	1.5E+03	6.0E+01	7.5E+01	1.2E+02	1.8E+02	
		Commercial/ Industrial	Carcinogenic	1.6E+03	2.4E+02	3.7E+01			
			Hazard	>SOL	1.7E+03	2.2E+03	3.4E+03	5.1E+03	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL	3.5E+03	9.4E+02			
			Hazard	>SOL	>SOL	>SOL	>SOL	>SOL	
		Commercial/ Industrial	Carcinogenic	>SOL	>SOL	>SOL			
			Hazard	>SOL	>SOL	>SOL	>SOL	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	
			Hazard	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	>SOL
		Commercial/ Industrial	Carcinogenic	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	
			Hazard	5.0E-03	5.0E-04	6.0E-03	6.0E-03	1.0E-02	>SOL
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic	2.1E+00	2.4E-01	1.3E-02			
			Hazard	1.9E+01	7.2E-01	1.2E+00	1.8E+00	3.5E+00	>SOL

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 8. Oakland Tier 2 SSTLs for Clayey Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Dimethyl-phenol (2,4)	di-n-Butyl-phthalate	di-n-octyl-phthalate	Dinitro-toluene (2,4)	Dioxins (1,4)	Ethyl-benzene	Ethylene Dibromide	Flouuran-thene	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic				6.3E+00	7.0E+01		5.5E-01		
			Hazard	7.7E+02	3.9E+03	7.8E+02			3.9E+03	2.2E+00	1.6E+03	
		Commercial/ Industrial	Carcinogenic				1.7E+01	1.8E+02		1.4E+00		
			Hazard	3.7E+03	1.9E+04	3.7E+03			1.8E+04	1.0E+01	7.4E+03	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic				SAT	SAT		7.5E+00		
			Hazard	SAT	SAT	SAT			SAT	2.1E+00	SAT	
		Commercial/ Industrial	Carcinogenic				SAT	SAT		1.2E+02		
			Hazard	SAT	SAT	SAT			SAT	6.1E+01	SAT	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic				SAT	SAT		4.5E+02		
			Hazard	SAT	SAT	SAT			SAT	1.5E+02	SAT	
		Commercial/ Industrial	Carcinogenic				SAT	SAT		1.7E+03		
			Hazard	SAT	SAT	SAT			SAT	8.7E+02	SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic				1.5E-02	SAT	1.6E+01	1.8E-04		
			Hazard	4.3E+00	7.9E+06	SAT			1.6E+01	1.8E-04	SAT	
		Commercial/ Industrial	Carcinogenic				6.2E-02	SAT	1.6E+01	1.8E-04		
			Hazard	2.8E+01	SAT	SAT			1.6E+01	1.8E-04	SAT	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic				>SOL	>SOL		8.5E+00		
			Hazard	>SOL	>SOL	>SOL			>SOL	2.4E+00	>SOL	
		Commercial/ Industrial	Carcinogenic				>SOL	>SOL		1.4E+02		
			Hazard	>SOL	>SOL	>SOL			>SOL	6.9E+01	>SOL	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic				>SOL	>SOL		1.3E+03		
			Hazard	>SOL	>SOL	>SOL			>SOL	4.3E+02	>SOL	
		Commercial/ Industrial	Carcinogenic				>SOL	>SOL		>SOL		
			Hazard	>SOL	>SOL	>SOL			>SOL	2.5E+03	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic				2.2E-03	>SOL	7.0E-01	5.0E-05		
			Hazard	3.1E-01	1.6E+00	>SOL			7.0E-01	5.0E-05	>SOL	
		Commercial/ Industrial	Carcinogenic				9.2E-03	>SOL	7.0E-01	5.0E-05		
			Hazard	2.0E+00	1.0E+01	>SOL			7.0E-01	5.0E-05	>SOL	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic				6.4E-02	>SOL		5.9E-03		
			Hazard	2.7E+00	7.3E+00	2.1E-03			3.6E+00	1.7E-02	>SOL	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 8. Oakland Tier 2 SSTLs for Clayey Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Fluorene	Indeno-(1,2,3-CD)-pyrene	Mercury	Methanol	Methyl ethyl ketone	Methylene Chloride	Methyl-naphthalene (2-)	MTBE	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic		1.7E+00				1.4E+02			
			Hazard	1.6E+03		3.9E+00	1.9E+04	2.2E+04	2.3E+03	1.6E+03	2.0E+02	
		Commercial/ Industrial	Carcinogenic		4.3E+00					3.7E+02		
			Hazard	7.4E+03		1.8E+01	8.9E+04	1.0E+05	1.1E+04	7.4E+03	9.3E+02	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic		SAT				4.2E+01			
			Hazard	SAT		1.5E+01	1.9E+05	2.4E+04	2.5E+03	SAT	1.4E+04	
		Commercial/ Industrial	Carcinogenic		SAT					6.7E+02		
			Hazard	SAT		SAT	SAT	SAT	SAT	SAT	SAT	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic		SAT					3.5E+03		
			Hazard	SAT		1.6E+03	SAT	SAT	SAT	SAT	SAT	
		Commercial/ Industrial	Carcinogenic		SAT					SAT	SAT	
			Hazard	SAT		9.4E+03	SAT	SAT	SAT	SAT	SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic		SAT		3.2E-01			8.2E-03		2.1E-02
			Hazard	5.2E+02		3.2E-01	7.1E+00	1.1E+01	8.2E-03	3.2E+02	2.1E-02	
		Commercial/ Industrial	Carcinogenic		SAT		3.2E-01			8.2E-03		2.1E-02
			Hazard	SAT		3.2E-01	4.7E+01	7.3E+01	8.2E-03	2.1E+03	2.1E-02	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic		>SOL				1.9E+02			
			Hazard	>SOL		1.4E+00	6.4E+05	6.5E+04	1.1E+04	>SOL	3.6E+04	
		Commercial/ Industrial	Carcinogenic		>SOL					3.0E+03		
			Hazard	>SOL		4.1E+01	>SOL	>SOL	>SOL	>SOL	>SOL	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic		>SOL					>SOL		
			Hazard	>SOL		6.0E+02	>SOL	>SOL	>SOL	>SOL	>SOL	
		Commercial/ Industrial	Carcinogenic		>SOL					>SOL		
			Hazard	>SOL		3.5E+03	>SOL	>SOL	>SOL	>SOL	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic		>SOL		2.0E-03			5.0E-03		1.3E-02
			Hazard	6.3E-01		2.0E-03	7.8E+00	9.4E+00	5.0E-03	6.3E-01	1.3E-02	
		Commercial/ Industrial	Carcinogenic		>SOL		2.0E-03			5.0E-03		1.3E-02
			Hazard	>SOL		2.0E-03	5.1E+01	6.1E+01	5.0E-03	4.1E+00	1.3E-02	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic		>SOL				1.3E+00			
			Hazard	3.1E-01		3.6E-02	2.2E+02	1.5E+02	1.6E+01	6.1E-01	1.5E+00	

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 8. Oakland Tier 2 SSTLs for Clayey Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Naphthalene	Nickel	Nitrobenzene	PCBs	Phenanthrene	Phenol	Pyrene	Pyridine	Selenium		
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic		3.4E+05	3.7E+03	3.6E-01				2.0E+03			
			Hazard	1.6E+03	1.4E+03		9.8E-01	1.2E+04	2.3E+04	1.2E+03		3.6E+02		
		Commercial/ Industrial	Carcinogenic		1.3E+06	9.9E+03	1.1E+00					5.1E+03		
			Hazard	7.4E+03	2.0E+04		5.8E+00	5.6E+04	1.1E+05	5.6E+03		5.1E+03		
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			SAT	1.6E+03				6.6E+04			
			Hazard	SAT			SAT	SAT	SAT	SAT				
		Commercial/ Industrial	Carcinogenic			SAT	SAT					1.1E+06		
			Hazard	SAT			SAT	SAT	SAT	SAT				
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic				SAT	SAT				3.9E+05		
			Hazard	SAT			SAT	SAT	SAT	SAT				
		Commercial/ Industrial	Carcinogenic				SAT	SAT				SAT		
			Hazard	SAT			SAT	SAT	SAT	SAT				
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	2.4E+00	2.0E+01	6.5E+00	9.4E+00					2.8E+00	8.0E-01	
			Hazard	2.4E+00	2.0E+01		9.4E+00	SAT	2.5E+01	SAT			8.0E-01	
		Commercial/ Industrial	Carcinogenic	2.4E+00	2.0E+01	2.8E+01	9.4E+00						1.2E+01	8.0E-01
			Hazard	2.4E+00	2.0E+01		9.4E+00	SAT	1.6E+02	SAT			8.0E-01	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			>SOL	3.2E-01				4.9E+04			
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL				
		Commercial/ Industrial	Carcinogenic			>SOL	>SOL					7.8E+05		
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL				
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			>SOL	>SOL					6.6E+05		
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL				
		Commercial/ Industrial	Carcinogenic			>SOL	>SOL					>SOL		
			Hazard	>SOL			>SOL	>SOL	>SOL	>SOL				
	Ingestion of Groundwater	Residential	Carcinogenic	2.0E-02	1.0E-01	1.3E+00	5.0E-04					6.7E-01	5.0E-02	
			Hazard	2.0E-02	1.0E-01		5.0E-04	>SOL	9.4E+00	>SOL			5.0E-02	
		Commercial/ Industrial	Carcinogenic	2.0E-02	1.0E-01	5.7E+00	5.0E-04					2.9E+00	5.0E-02	
			Hazard	2.0E-02	1.0E-01		5.0E-04	>SOL	6.1E+01	>SOL			5.0E-02	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			2.8E+01	1.6E-05				2.6E+01			
			Hazard	1.5E+00	7.9E+00		4.4E-05	>SOL	1.5E+02	>SOL		2.0E+00		

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water

Table 8. Oakland Tier 2 SSTLs for Clayey Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Silver	Styrene	Tetrachloro-ethane (1,1,2,2-)	Tetrachloro-ethylene (PCE)	Tetraethyl Lead	Toluene	Trichloro-ethane (1,1,1-)	Trichloro-ethane (1,1,2-)	
Surficial Soil [mg/kg]	Ingestion/ Dermal/ Inhalation	Residential	Carcinogenic			7.2E+00	3.8E+01				2.7E+01	
			Hazard	3.6E+02	7.7E+03	1.0E+03	3.7E+02	3.9E-03	7.1E+03	1.4E+03	1.5E+02	
		Commercial/ Industrial	Carcinogenic			1.9E+01	1.0E+02					7.0E+01
			Hazard	5.1E+03	3.7E+04	4.7E+03	1.8E+03	1.9E-02	3.4E+04	6.5E+03	7.2E+02	
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			1.8E+01	7.6E+00				1.5E+01	
			Hazard		SAT	2.5E+03	3.1E+01		9.3E+02	6.6E+02	8.4E+01	
		Commercial/ Industrial	Carcinogenic			2.9E+02	1.2E+02					2.4E+02
			Hazard		SAT	SAT	SAT		SAT	SAT	2.4E+03	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			1.0E+03	6.9E+02					1.1E+03
			Hazard		SAT	SAT	SAT		SAT	SAT	SAT	
		Commercial/ Industrial	Carcinogenic			3.9E+03	SAT					4.2E+03
			Hazard		SAT	SAT	SAT		SAT	SAT	SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	<i>2.6E+00</i>	<i>4.8E+00</i>	6.6E-03	5.2E-02	4.6E+00	1.8E+00	1.5E+00	2.0E-02	
			Hazard	<i>2.6E+00</i>	<i>4.8E+00</i>	6.6E-03	5.2E-02	4.6E+00	1.8E+00	1.5E+00	2.0E-02	
		Commercial/ Industrial	Carcinogenic	<i>2.6E+00</i>	<i>4.8E+00</i>	6.6E-03	5.2E-02	4.6E+00	1.8E+00	1.5E+00	2.0E-02	
			Hazard	<i>2.6E+00</i>	<i>4.8E+00</i>	6.6E-03	5.2E-02	4.6E+00	1.8E+00	1.5E+00	2.0E-02	
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic			1.1E+01	2.6E+01				1.9E+01	
			Hazard		>SOL	1.5E+03	1.1E+02		>SOL	>SOL	1.1E+02	
		Commercial/ Industrial	Carcinogenic			1.7E+02	>SOL				3.0E+02	
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	3.1E+03	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic			1.5E+03	>SOL				4.0E+03	
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	>SOL	
		Commercial/ Industrial	Carcinogenic			>SOL	>SOL				>SOL	
			Hazard		>SOL	>SOL	>SOL		>SOL	>SOL	>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
			Hazard	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
		Commercial/ Industrial	Carcinogenic	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
			Hazard	<i>1.0E-01</i>	<i>1.0E-01</i>	1.0E-03	5.0E-03	1.5E-02	1.5E-01	2.0E-01	5.0E-03	
Water Used for Recreation [mg/l]	Ingestion/ Dermal	Residential	Carcinogenic			4.5E-02	6.0E-02				1.8E-01	
			Hazard	2.1E+00	9.3E+00	4.9E+00	5.3E-01	6.7E-06	1.1E+01	4.3E+00	7.8E-01	

\*Italicized concentrations based on California MCLs  
 SAT = RBSL exceeds saturated soil concentration of chemical  
 >SOL = RBSL exceeds solubility of chemical in water



Table 8. Oakland Tier 2 SSTLs for Clayey Silts

Medium	Exposure Pathway	Land Use	Type of Risk	Trichloroethylene (TCE)	Vanadium	Vinyl Chloride	Xylenes	Zinc
Surficial Soil [mg/kg]	Ingestion/Dermal/Inhalation	Residential	Carcinogenic	1.3E+02		3.5E+00		
			Hazard	2.2E+02	5.0E+02		5.3E+04	2.1E+04
		Commercial/Industrial	Carcinogenic	3.3E+02		9.1E+00		
			Hazard	1.1E+03	7.2E+03		2.6E+05	3.1E+05
Subsurface Soil [mg/kg]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	2.7E+01		3.0E-02		
			Hazard	3.2E+01			SAT	
		Commercial/Industrial	Carcinogenic	4.4E+02		4.8E-01		
			Hazard	9.3E+02			SAT	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	2.5E+03		2.7E+00		
			Hazard	3.4E+03			SAT	
		Commercial/Industrial	Carcinogenic	SAT		1.0E+01		
			Hazard	SAT			SAT	
	Ingestion of Groundwater Impacted by Leachate	Residential	Carcinogenic	5.5E-02		1.1E-03	2.7E+01	
			Hazard	5.5E-02	3.3E+02	1.1E-03	2.7E+01	8.9E+02
		Commercial/Industrial	Carcinogenic	5.5E-02		1.1E-03	2.7E+01	
			Hazard	5.5E-02	2.2E+03	1.1E-03	2.7E+01	5.8E+03
Groundwater [mg/l]	Inhalation of Indoor Air Vapors	Residential	Carcinogenic	5.4E+01		6.6E-01		
			Hazard	6.3E+01			>SOL	
		Commercial/Industrial	Carcinogenic	8.6E+02		1.0E+01		
			Hazard	>SOL			>SOL	
	Inhalation of Outdoor Air Vapors	Residential	Carcinogenic	>SOL		2.7E+02		
			Hazard	>SOL			>SOL	
		Commercial/Industrial	Carcinogenic	>SOL		1.0E+03		
			Hazard	>SOL			>SOL	
	Ingestion of Groundwater	Residential	Carcinogenic	5.0E-03		5.0E-04	1.8E+00	
			Hazard	5.0E-03	1.1E-01	5.0E-04	1.8E+00	4.7E+00
		Commercial/Industrial	Carcinogenic	5.0E-03		5.0E-04	1.8E+00	
			Hazard	5.0E-03	7.2E-01	5.0E-04	1.8E+00	3.1E+01
Water Used for Recreation [mg/l]	Ingestion/Dermal	Residential	Carcinogenic	4.6E-02		2.6E-02		
			Hazard	7.2E-02	2.8E+00		6.6E+01	1.2E+02

\*Italicized concentrations based on California MCLs

SAT = RBSL exceeds saturated soil concentration of chemical

>SOL = RBSL exceeds solubility of chemical in water