



Alameda County

AUG 1 2004

Environ. Health Dept.

**2004 SECOND QUARTER
GROUNDWATER MONITORING REPORT
FORMER SEARS RETAIL CENTER #1039
1901-1911 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA
CASE I.D. # STID 1630
FOR SEARS, ROEBUCK & CO.**

**URS Job No. 29863493
August 10, 2004**

URS

20147 ✓

August 10, 2004

Alameda County

AUG 18 2004

ENVIRONMENTAL

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


**Subject: 2004 Second Quarter Groundwater Monitoring
Former Sears Retail Center #1039
1901- 1911 Telegraph Avenue
Oakland, California
Case I.D. #STID 1630
For Sears, Roebuck & Co.**

Dear Mr. Hwang:

Submitted with this letter is a URS report prepared on behalf of Sears, Roebuck & Co. Presented in the report are results of groundwater monitoring conducted at the above-referenced Site during the second quarter 2004. 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.H.G.
Project Manager

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

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1.0 INTRODUCTION

This report has been prepared by URS Corporation on behalf of Sears, Roebuck & Co., (Sears). It presents results of the 2004 second quarter groundwater monitoring conducted at the Sears Auto Center (Site) located at 1901-1911 Telegraph Avenue in Oakland, California (Figure 1). The groundwater monitoring event consisted of "post purge" groundwater sample collection from nine monitoring wells (MW-1 through MW-9). The purpose of the groundwater monitoring was to assess current groundwater conditions in the vicinity of a former gasoline concession area (Figure 2). The work is being performed under regulatory oversight of the Alameda County Environmental Health Services (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 1901-1911 Telegraph Avenue, Oakland, California (Figure 1). The Site is bordered on the north by Williams Street, Telegraph Avenue to the east, 19th Street to the south, and San Pablo Avenue to the west (Figure 2). A Sears Auto Center, a former Chevron Service Station, a three-story above-grade-parking garage, and a paved parking lot occupy the property.

2.1 REGIONAL GEOLOGY AND HYDROGEOLOGY

The Site is approximately 1.5 miles east of the San Francisco Bay and three miles west of the Diablo Range in Oakland, California. The area is located on the eastern flank of The San Francisco Basin, a broad Franciscan depression. 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 varying in total thickness from approximately 300 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, which primarily consists of silts and clays overlying 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. 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 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 Sears Auto Center, a multiple level parking structure, a paved parking lot, and a former Chevron Service Station. The Sears Auto Center is currently in operation; it is a converted former Goodyear Tire Center. Three gasoline underground storage tanks (USTs) and a used oil UST were installed at the former Chevron Service Station. On January 29, 1988, prior to Sears' ownership of the Site, one 3,000 gallon gasoline UST, one 5,000 gallon gasoline UST, one 7,000 gallon gasoline UST, and one 500 gallon used oil UST were removed under oversight of the Oakland Fire Department and the ACEHS. Approximately 20 to 30 cubic yards of gasoline impacted soil was removed from the "south area" of the gasoline USTs excavation and subsequently disposed at a Class I landfill in Buttonwillow, California. Following excavation, residual concentrations of total petroleum hydrocarbons as gasoline (TPHg) and benzene in soil were below 100 mg/kg and 0.7 mg/kg, respectively. The UST excavations were subsequently backfilled with imported crushed rock and "clean excavated material" (Dames & Moore, 1988).

A total of nine groundwater monitoring wells (MW-1 through MW-9) have been installed, before and after the property's purchase by Sears, to evaluate the extent of gasoline impacted groundwater emanating from the former Chevron Station's UST area. The prior owners, Broadway/Federated Department Stores, began initial investigation work and groundwater monitoring. Subsequent to the property's purchase by Sears during a bankruptcy proceeding, Sears has continued quarterly groundwater monitoring (since June 1996), and has installed additional wells to define the down-gradient extent of the gasoline groundwater plume (The IT Group, February 2000).

Groundwater has been monitored since January 1988. Well MW-1 has been monitored on a periodic basis since January 1988 while wells MW-2, MW-3, and MW-4 have been monitored on a periodic basis since June 1993. Wells MW-5, MW-6, and MW-7 have been monitored on a periodic basis since June 1994. Wells MW-8 and MW-9 have been monitored on a periodic basis since November 1999. Historical monitoring data shows that dissolved phase TPHg have been detected in six of the nine wells and dissolved phase benzene has been detected in seven of the nine wells. Available historical groundwater data (since October 1995); including depth to water, groundwater elevation, hydrocarbon and volatile organic compounds (VOCs) concentrations; are summarized in Appendix B.

4.0 HEALTH AND SAFETY PLAN

Prior to initiating the field activities, URS prepared a site-specific Health & Safety (H&S) Plan to:

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

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

5.0 QUARTERLY GROUNDWATER MONITORING

The 2004 second quarter groundwater monitoring was performed on May 5, 2004. The monitoring consisted of groundwater gauging, purging, and sampling of all nine wells (MW-1 through MW-9). A description of the monitoring procedures is presented in the following section.

5.1 GROUNDWATER GAUGING

Prior to gauging, the groundwater monitoring wells were checked for the presence of separate phase product using a product interface probe. Separate phase product was not observed in any of the wells. Water levels in each well were measured using a Solinst™ water level indicator relative to a defined measuring point on the surveyed top of casing. Water level data was recorded to the nearest 0.01 foot. Before and after each well the water level indicator sensor and tape was rinsed with a solution of Alconox followed by rinsing with tap water or deionized water. Groundwater depths and elevations for the 2004 second quarter are listed in Table 1 and Appendix B.

5.2 PURGING AND SAMPLING METHODS

Prior to sample collection, wells were purged of approximately three well casing volumes using a Grundfos™ RediFlo 2 submersible well pump. Water purged from each well was monitored for various field parameters including temperature, pH, turbidity, electrical conductivity, dissolved oxygen (DO), and oxidation reduction potential (ORP) using a YSI™ multi-parameter meter equipped with a flow-through cell. Purging continued until temperature, pH, and conductivity had stabilized. The stabilized field parameters are listed in Table 1.

Groundwater samples were collected from nine monitoring wells for laboratory analysis during the 2004 second quarter groundwater monitoring event. Groundwater samples were collected from the discharge tubing of the well pump following purging. The Grundfos RediFlo 2™ submersible well pump was cleaned prior to use (and between wells) by washing in a solution of Alconox, rinsing with tap water, final rinsing with 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 was collected from well MW-7 and labeled DUP-1. One equipment blank sample, EB-1, was collected by pumping deionized water through the pump and into sample containers following decontamination procedures.

Sample containers and handling procedures for groundwater samples 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 and logged on a chain of custody form. 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 with ice and transported to Southland Technical Services, Inc. (STS), a California Department of Health Services (CDHS) accredited laboratory for analysis. The ice chest temperature was recorded at 4 degrees

centigrade by the laboratory upon receipt. Chain-of-custody records were maintained throughout the sampling program.

5.3 LABORATORY ANALYSIS PROGRAM

All groundwater samples and duplicates were analyzed by STS for TPHg by modified EPA Method 8015M. Groundwater samples were also analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), and fuel oxygenates Methyl tert-Butyl Ether (MTBE), Di-isopropyl Ether (DIPE), Ethyl tert-butyl Ether (ETBE), tert-Amyl Methyl Ether (TAME), tert-Butanol (TBA), and other volatile organic compounds (VOCs) by EPA Method 8260B.

5.4 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 quarterly event, all wells were properly sealed and secured.

5.5 WASTE MANAGEMENT

Well purge water was collected and stored in two 55-gallon DOT-approved drums. Containers were labeled to identify the source of the wastes and individually numbered. The containers were stored onsite and properly disposed of by a licensed waste transporter under contract with Sears, Roebuck & Co., following review of the chemical analysis data.

6.0 FINDINGS

6.1 SHALLOW GROUNDWATER CONDITIONS

The measured depth to groundwater beneath the Site during the second quarter monitoring event ranged from 12.64 feet to 17.02 feet bgs. Calculated groundwater elevations ranged from 3.25 feet to 6.19 feet above mean sea level (msl). Groundwater elevations in the wells have increased an average of 0.26 feet since the 2004 first quarter monitoring event. Groundwater depths and elevations are listed in Table 1 and Appendix B. An interpretive groundwater elevation contour map, based on the 2004 second quarter groundwater-level measurements, is provided as Figure 3. Groundwater elevation contours for the Site were generated by a geostatistical gridding method using SURFER™, a graphical, contouring software program. The resultant groundwater contours indicate an easterly groundwater flow direction with a gradient of about 0.012 (Figure 3).

6.2 LABORATORY ANALYTICAL RESULTS

TPHg was detected in groundwater samples collected from wells MW-2 and MW-7 with concentrations of 98 micrograms per liter ($\mu\text{g/L}$) and 27,000 $\mu\text{g/L}$, respectively. Benzene was detected in samples collected from monitoring wells MW-2, MW-4, and MW-7, with concentrations ranging from 1.0 $\mu\text{g/L}$ to 17,000 $\mu\text{g/L}$. Ethylbenzene and xylene were detected in the sample collected from MW-7 at concentrations of 782 $\mu\text{g/L}$ and 841 $\mu\text{g/L}$, respectively.

Various chlorinated VOCs, including tetrachloroethene (PCE), trichloroethene (TCE) and 1,2-dichloroethane (1,2-DCA) were detected in the groundwater samples collected from wells MW-1, MW-2, MW-3, MW-8, and MW-9. PCE was detected in wells MW-1, MW-3, MW-8, and MW-9 with concentrations ranging from 3.3 $\mu\text{g/L}$ to 38.2 $\mu\text{g/L}$. TCE was detected in wells MW-1, MW-2, MW-3 and MW-9 with concentrations ranging from 4.3 $\mu\text{g/L}$ to 13.9 $\mu\text{g/L}$. 1,2-DCA was detected in wells MW-2 and MW-9 at concentrations of 11.6 $\mu\text{g/L}$ and 26.2 $\mu\text{g/L}$, respectively.

Chemical analysis results of the 2004 second quarter groundwater monitoring are presented in Table 2. A copy of the laboratory reports and chain-of-custody records are included in Appendix C. Groundwater isoconcentration maps for TPHg and Benzene for the 2004 second quarter are shown on Figures 4 and 5, respectively. URS conducted a check of data completeness for the analytical laboratory reports. Results indicate that "these data are considered to be useable for meeting project objectives." A copy of URS' Data Validation Report is included in Appendix D.

7.0 DISCUSSION

The 2004 second quarter groundwater monitoring event represents the 35th groundwater-sampling event conducted at the Site. Groundwater elevations have increased approximately 0.26 feet since the last sampling event conducted in February 2004. Groundwater flow direction is towards the east with a gradient of 0.012, which is consistent with previous monitoring events.

TPHg were detected in two of the nine monitoring wells sampled with concentrations up to 27,000 µg/L. Benzene was detected in three of nine monitoring wells sampled with concentrations up to 17,000 µg/L. The suspected source is the former gasoline USTs and fuel dispensing area of the former Chevron station located near the central portion of the Site.

Chlorinated VOCs have been detected in both the upgradient well MW-1 as well as the downgradient well MW-9 during this, and previous, groundwater sampling events. PCE and TCE concentrations have steadily increased in upgradient wells MW-1 and MW-3 during the last several years. Potential onsite sources of chlorinated VOCs have not been identified; however, a widespread groundwater plume containing chlorinated compounds has been identified in the Site vicinity by Harding ESE and is referenced in the Fourth Quarter 2001 Groundwater Monitoring Report for the Site (IT Corp., May 2002). Based on these results, chlorinated VOCs are not associated with impacts from the Site.

Based on the data collected during this and previous monitoring events, the lateral limits of TPHg and BTEX affected groundwater can be described by an oval shaped plume with the long axis trending southeast with a length of approximately 210 feet, and the short axis trending northeast with a length of approximately 130 feet. The plume is defined by the existing monitoring well network and is limited to the Site. Although TPHg and benzene concentrations have increased in well MW-7 since 1995, they have remained relatively stable during the last year. In general, monitoring data collected during the past year suggests that the dissolved phase TPHg and BTEX plume is stable and is not migrating laterally or further down gradient.

8.0 SCHEDULE

The schedule for work to be conducted during the following quarter is as follows:

- ◆ Quarterly groundwater monitoring of wells MW-1 through MW-9: August 2004,
- ◆ Submittal of 2004 Third Quarter Groundwater Monitoring Report to ACEHS: October 2004,

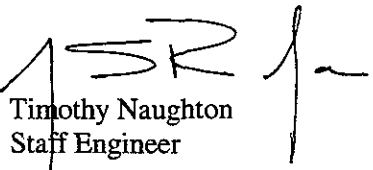
ACEHS will be notified of upcoming field activities.

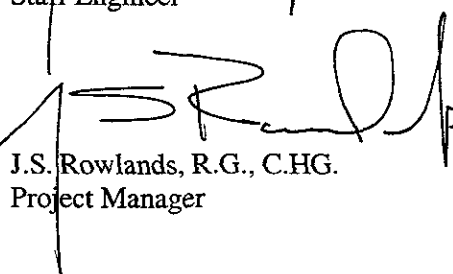
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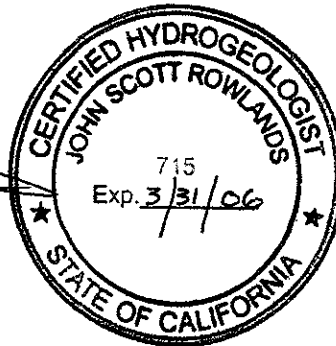
Should you have any questions or comments, please do not hesitate to contact us.

Respectfully Submitted,

URS CORPORATION


Timothy Naughton
Staff Engineer


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



9.0 REFERENCES

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2004 Second Quarter Groundwater Monitoring Report

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URS Corporation, 2004. *2004 First Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, March 31.

TABLES

Table 1
2004 2nd Quarter Groundwater Levels and Parameters
Sears Retail Center Store No. 1039
Oakland, California

Monitoring Well No.	Date Collected	Notes	GROUNDWATER LEVELS				GROUNDWATER SAMPLING FIELD PARAMETERS							
			Product Thickness (ft)	Depth to Groundwater (feet bgs)	Casing Elevation (MSL)	Groundwater Elevation (MSL)	Temperature (Celsius)	pH	Conductivity (µS/cm)	O.R.P. (mV)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Ferrous Iron* (mg/L)	
MW-1	5/5/04	--	0.0	14.80	20.99	6.19	19.56	6.29	789	3.7	5.9	1.37	0.0	
MW-2	5/5/04	--	0.0	14.61	20.50	5.89	21.28	6.46	1522	-84.6	1.2	0.42	3.0	
MW-3	5/5/04	--	0.0	16.68	22.29	5.61	20.99	6.27	530	-18.6	4.0	0.38	0.4	
MW-4	5/5/04	--	0.0	13.44	18.61	5.17	21.08	6.57	1496	-60.8	1.0	0.71	1.0	
MW-5	5/5/04	1	0.0	12.64	18.76	6.12	20.61	6.70	1412	-147.1	29.2	1.05	4.6	
MW-6	5/5/04	--	0.0	14.49	18.91	4.42	20.90	6.48	1770	-37.0	1.9	0.51	0.4	
MW-7	5/5/04	1	0.0	15.95	20.39	4.44	21.37	6.50	1073	-143.6	41.1	0.50	4.8	
MW-8	5/5/04	--	0.0	17.02	21.12	4.10	21.09	6.43	483	57.6	5.2	3.58	0.4	
MW-9	5/5/04	--	0.0	15.95	19.20	3.25	21.68	6.48	1009	61.4	6.2	0.35	0.0	

Notes: MSL - Mean Sea Level
 BGS - Below ground surface
 Groundwater Elevation reference to MSL
 Groundwater Elevation = Top of casing elevation - Depth to Water
 1 - Petroleum odor in groundwater

µS/cm - microSiemens per centimeter
 mV - millivolt
 mg/L - milligrams per liter
 NTU - nephelometric turbidity units
 O.R.P. - Oxidation Reduction Potential

* - Ferrous Iron Field Results

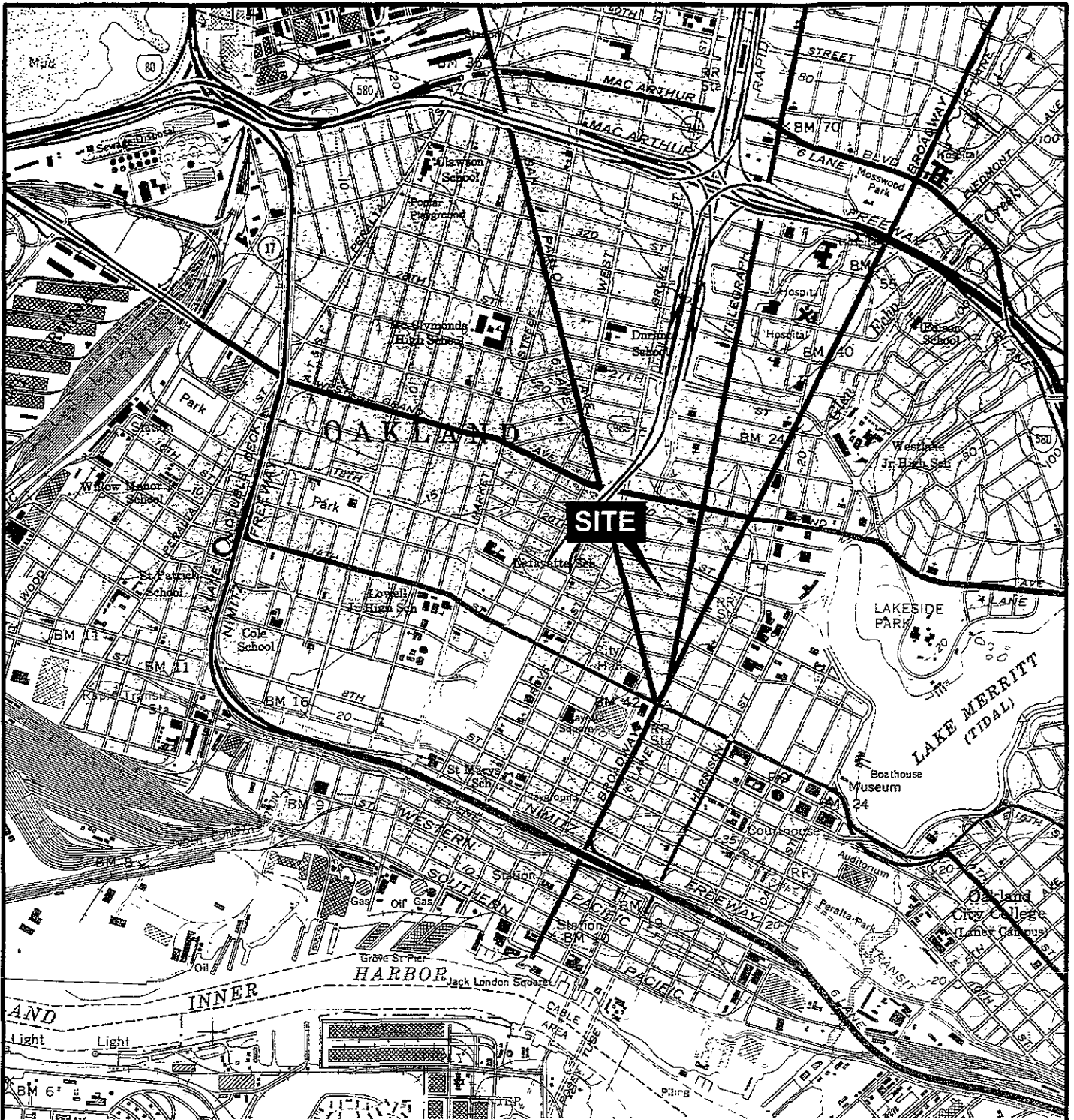
Table 2
2004 2nd Quarter Groundwater Analytical Results
Sears Retail Center Store No. 1039
Oakland, California

Monitoring Well No.	Sample Date	LABORATORY ANALYTICAL RESULTS														
		EPA Method 8015M		EPA Method 8260B												
		Notes	TPHg (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)	PCE (µg/L)	TCE (µg/L)	1,2-DCA (µg/L)	
MW-1	5/5/04	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	38.2	4.3	< 5
MW-2	5/5/04	--	98	27.6	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	6.1	11.6
MW-3	5/5/04	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	33.7	10.5	< 5
MW-4	5/5/04	--	< 50	1.0	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5
MW-5	5/5/04	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5
MW-6	5/5/04	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5
MW-7	5/5/04	--	27,000	17,000	< 1	782	841	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5
	5/5/04	1	35,800	15,700	< 1	715	938	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5
MW-8	5/5/04	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	3.3	< 2.5	< 5
MW-9	5/5/04	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	34.9	13.9	26.2

Notes:

1: Duplicate sample
 < - Analyte not detected above indicated method detection limit
 TPHg = Total Petroleum Hydrocarbons as gasoline
 MTBE - Methyl tertiary-butyl ether
 DIPE - Di-isopropyl Ether
 TAME - Tertiary Amyl Methyl Ether
 TBA - Tertiary Butyl Alcohol
 ETBE - Ethyl Tertiary Butyl Ether
 PCE - Tetrachloroethane
 TCE - Trichloroethene
 1,2-DCA - 1,2-Dichloroethane (EDC)

FIGURES

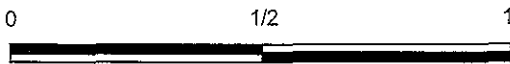


REFERENCE: USGS 7.5 Minute Series Oakland West, CA Quad, 1959, Photorevised 1980

FIGURE 1

VICINITY MAP

SEARS AUTO CENTER #1039
 1901-1911 TELEGRAPH AVENUE
 OAKLAND, CALIFORNIA
 For Sears, Roebuck & Co.



Scale in Miles

URS

L:\Sears oakland/oakland plot plan. fn10 4/03

Williams Street

Telegraph Avenue

San Pablo Avenue

Parking Garage

Canopy
 Removed
 Dispensers
 Former
 Chevron
 Station
 Former Waste
 Oil UST Location
 Vent Pipes
 Former Gasoline
 UST Locations

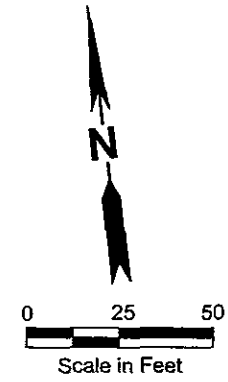
Sears Auto Center
 Service Bay
 Show
 Room
 Stock Room

Used Tire Storage Area

19th Street

EXPLANATION

MW-1
 MONITORING WELL LOCATION



PLOT PLAN

Project: SEARS AUTO CENTER #1039,
 1901-1911 TELEGRAPH AVE., OAKLAND, CA

Project No.: 29863493

Figure 2

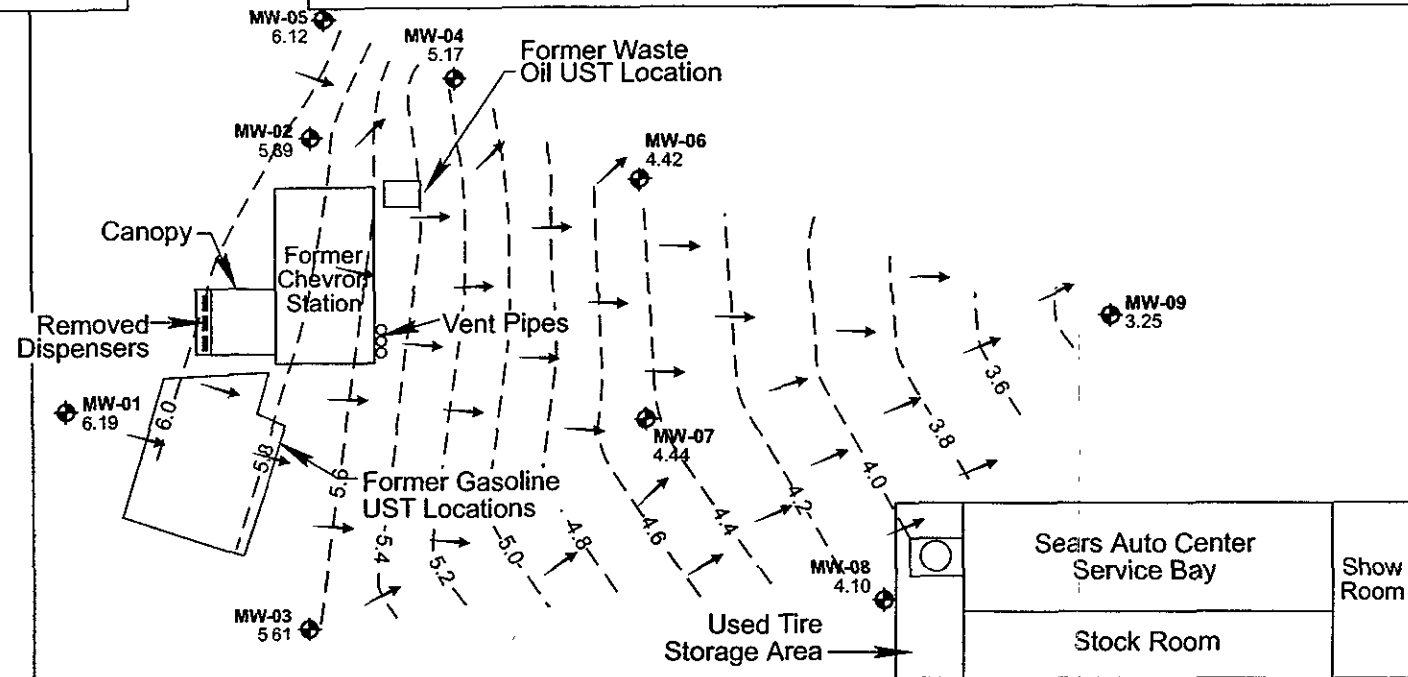
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Williams Street

Telegraph Avenue

San Pablo Avenue

Parking Garage



EXPLANATION

- MW-05 MONITORING WELL LOCATION
- 3.6 - GROUNDWATER CONTOUR
- GROUNDWATER FLOW VECTOR
- 6.12 GROUNDWATER ELEVATION



**GROUNDWATER CONTOUR MAP
2004 SECOND QUARTER**

Project: SEARS AUTO CENTER #1039,
1901-1911 TELEGRAPH AVE., OAKLAND, CA

Project No.: 29863493

Date Measured: May 5, 2004

Figure 3

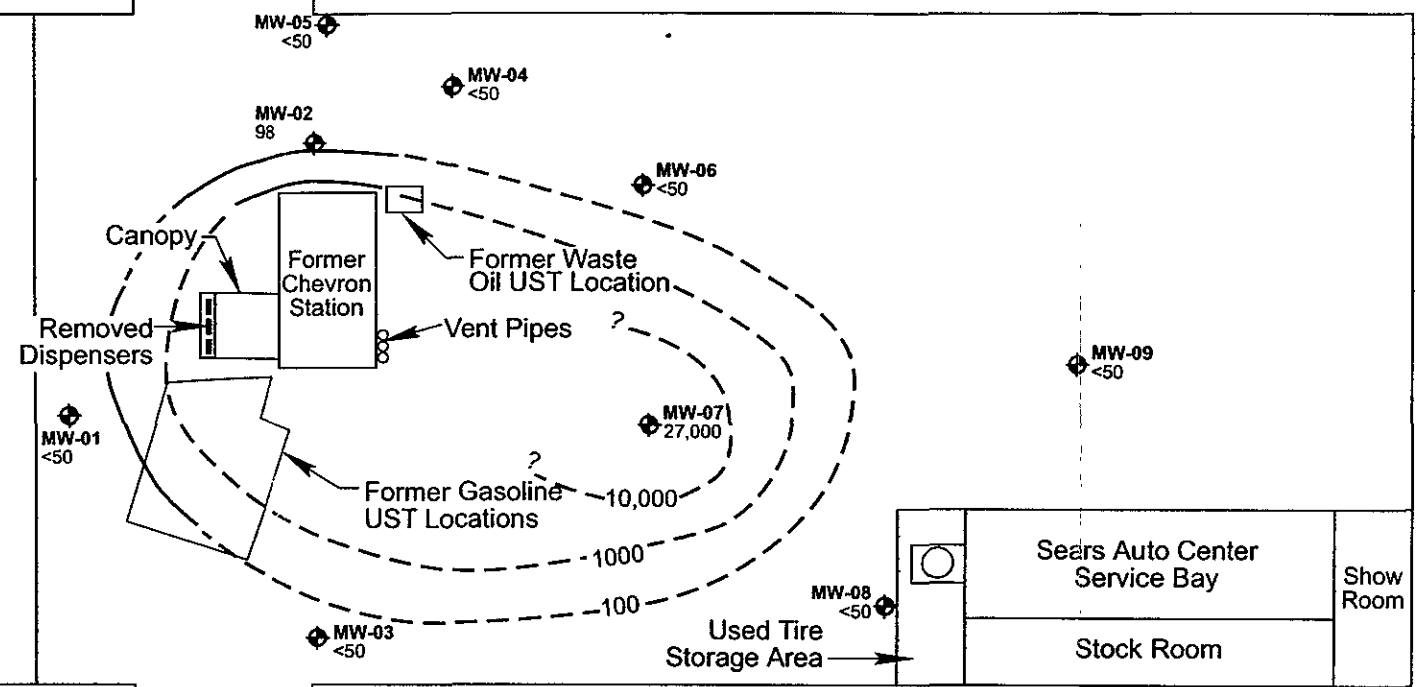
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Williams Street

Telegraph Avenue

San Pablo Avenue

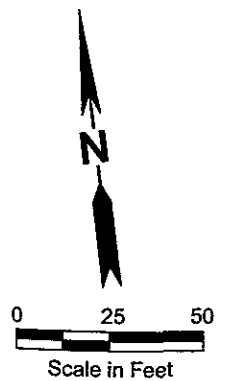
Parking Garage



19th Street

EXPLANATION

- MW-7
27,000 MONITORING WELL LOCATION WITH TPHg CONCENTRATION IN µg/L
- 100— TPHg ISOCONCENTRATION CONTOUR



**TPHg ISOCONCENTRATION CONTOUR
MAP- 2004 SECOND QUARTER**

Project: SEARS AUTO CENTER #1039,
1901-1911 TELEGRAPH AVE., OAKLAND, CA

Date Sampled: MAY 5, 2004

Figure 4

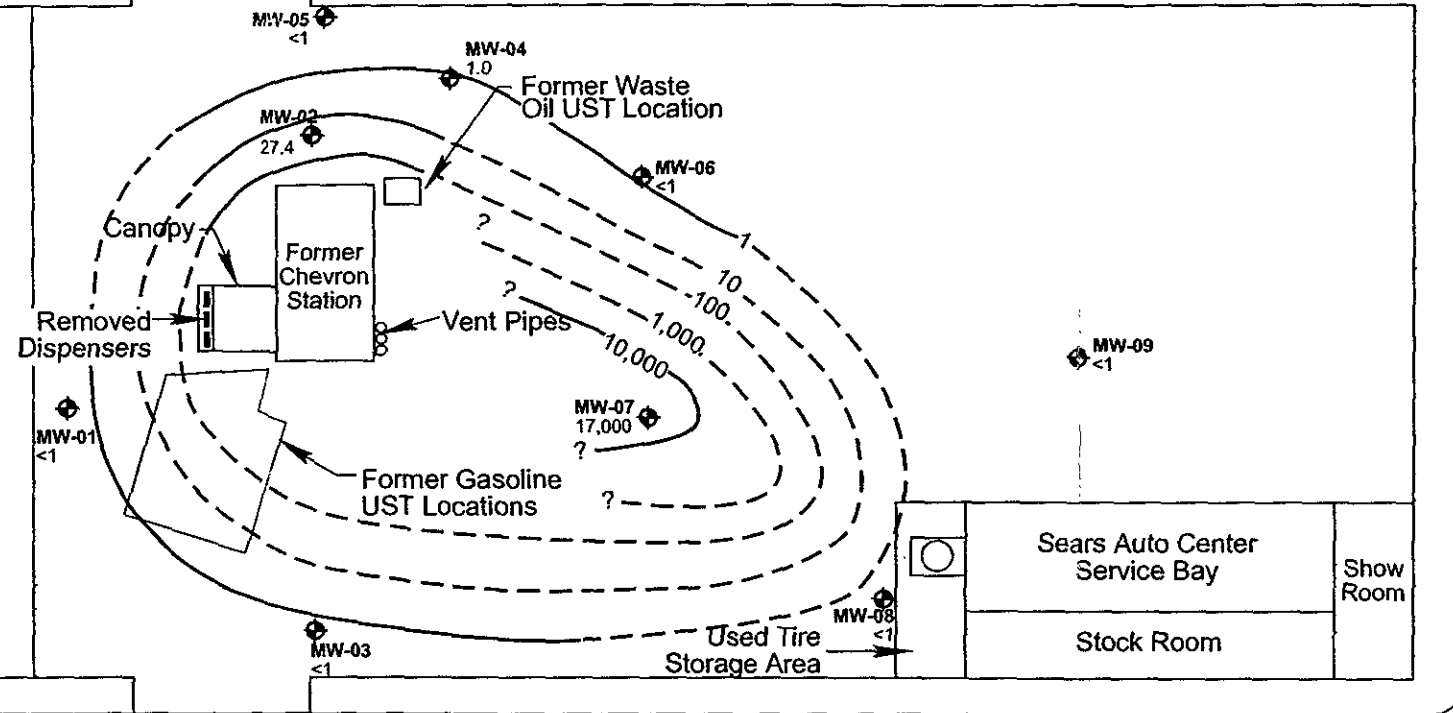
G:\128\Sears_128\Oakland\1901-1911 Telegraph Ave\2004\2NDQtr\GW04\Figures\Figure 4.fn 10/03

Williams Street

Telegraph Avenue

San Pablo Avenue

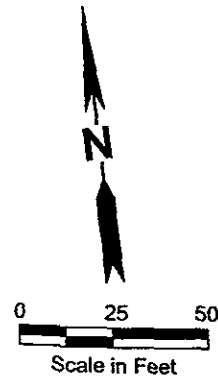
Parking Garage



19th Street

EXPLANATION

- MW-7 17,000 MONITORING WELL LOCATION WITH BENZENE CONCENTRATION IN µg/L
- 100— BENZENE ISOCONCENTRATION CONTOUR



BENZENE ISOCONCENTRATION CONTOUR MAP- 2004 SECOND QUARTER

Project: SEARS AUTO CENTER #1039, 1901-1911 TELEGRAPH AVE., OAKLAND, CA

Date Sampled: May 5, 2004

Figure 5

G:\128\Sears_128\Oakland\1901-1911 Telegraph Ave\2004\2nd Qtr\GW04\Figures\Figure 5.fh 10_10/03

APPENDIX A

SWRCB GEOTRACKER SITE DATA

LUFT ANALYTICAL DATA REPORT

CHEVRON (OAKLAND)
1911 TELEGRAPH AVE
OAKLAND, CA 94612
CASE STATUS: CLOSED
[SHOW THIS SITE ON MAP](#)
[RETURN TO REPORT MAIN MENU](#)

REGIONAL BOARD - CASE #: 01-0336
SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)
CONTACT: BETTY GRAHAM - (510) 622-2300
LOCAL AGENCY (LEAD AGENCY) - CASE #: 1630
ALAMEDA COUNTY LOP - (UNK)

By Selected Elements

Results

Note: You may select up to 6 chemicals.

[\(All Data\)](#) | [\(Most Recent\)](#) | [\(Maximum Concentrations\)](#)

<u>NAME</u>	<u>DATE</u>	<u>PARAMETER</u>	<u>MATRIX</u>	<u>QUALIFIER</u>	<u>RESULT</u>	<u>UNITS</u>	<u>PLOT</u>
NO DATA HAS BEEN SUBMITTED TO THE SWRCB FOR THIS MONITORING WELL.							

* DENOTES A HISTORICAL VALUE

[Geotracker Home](#) | [Site/Facility Finder](#) | [Case Finder](#) | [MTBE/Case Reports](#)

Locational Information

CHEVRON (OAKLAND)
1911 TELEGRAPH AVE
OAKLAND , CA 94612
CASE STATUS: CLOSED
[SHOW THIS SITE ON MAP](#)
[RETURN TO REPORT MAIN MENU](#)

REGIONAL BOARD - CASE #: 01-0336
SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)
CONTACT: BETTY GRAHAM - (510) 622-2300
LOCAL AGENCY (LEAD AGENCY) - CASE #: 1630
ALAMEDA COUNTY LOP - (UNK)

PHYSICAL LOCATION:

<u>GLOBAL ID</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>
T0600100308	37.80913	-122.269338

GEOGRAPHIC DATA DETAILS:

<u>DATUM</u> North American Datum 1983	<u>SURVEY METHOD</u> Geocoded
<u>PROJECTION</u> Geographic Projection	<u>ESTIMATED ACCURACY</u> 376.24 feet
<u>SOURCE OF DATA</u> ETAK Geocoding Class 1 Block Match - Street Segment Exact Address Match	

[Geotracker Home](#) | [Site/Facility Finder](#) | [Case Finder](#) | [MTBE/Case Reports](#)

REGULATORY HISTORY

CHEVRON (OAKLAND)
1911 TELEGRAPH AVE
OAKLAND , CA 94612
CASE STATUS: CLOSED
[SHOW THIS SITE ON MAP](#)
[RETURN TO REPORT MAIN MENU](#)

REGIONAL BOARD - CASE #: 01-0336
SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)
CONTACT: BETTY GRAHAM - (510) 622-2300
LOCAL AGENCY (LEAD AGENCY) - CASE #: 1630
ALAMEDA COUNTY LOP - (UNK)

REGULATORY HISTORY

<u>BEGIN DATE</u>	<u>STATUS</u>
2/23/1988	Leak Discovery
2/23/1988	Leak Reported
4/12/1988	8 - Verification Monitoring Underway
4/15/1988	Leak Stopped
3/12/1992	System Entry
8/21/1998	9 - Case Closed
8/21/1998	Regulatory Review

[Geotracker Home](#) | [Site/Facility Finder](#) | [Case Finder](#) | [MTBE/Case Reports](#)

Detailed Release Information

CHEVRON (OAKLAND)
1911 TELEGRAPH AVE
OAKLAND , CA 94612

CASE STATUS: CLOSED
[SHOW THIS SITE ON MAP](#)
[RETURN TO REPORT MAIN MENU](#)

REGIONAL BOARD - CASE #: 01-0336
SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)
CONTACT: BETTY GRAHAM - (510) 622-2300

LOCAL AGENCY (LEAD AGENCY) - CASE #: 1630
ALAMEDA COUNTY LOP - (UNK)

CASE TYPE:

Soil Only

ENFORCEMENT TYPE:

FUNDING:

F

HOW LEAK WAS DISCOVERED:

Tank Closure

METHOD USED TO STOP DISCHARGE:

Close Tank

INTERIM:

Y = Interim Action Taken

CAUSE OF LEAK:

Structural Failure

SOURCE OF LEAK:

Tank

SUBSTANCES RELEASED:

<u>Begin Date</u>	<u>Substance</u>	<u>Quantity</u>
UNKNOWN	WASTE OIL	

[Geotracker Home](#) | [Site/Facility Finder](#) | [Case Finder](#) | [MTBE/Case Reports](#)

Remediation On Site

CHEVRON (OAKLAND)

1911 TELEGRAPH AVE
OAKLAND , CA 94612

CASE STATUS: CLOSED

[SHOW THIS SITE ON MAP](#)

[RETURN TO REPORT MAIN MENU](#)

REGIONAL BOARD - CASE #: 01-0336

SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)

CONTACT: BETTY GRAHAM - (510) 622-2300

LOCAL AGENCY (LEAD AGENCY) - CASE #: 1630

ALAMEDA COUNTY LOP - (UNK)

<u>Start Date</u>	<u>Method</u>	<u>Phase</u>
4/5/2000	Excavate And Dispose	Soil
4/5/2000	Excavate And Treat	Soil

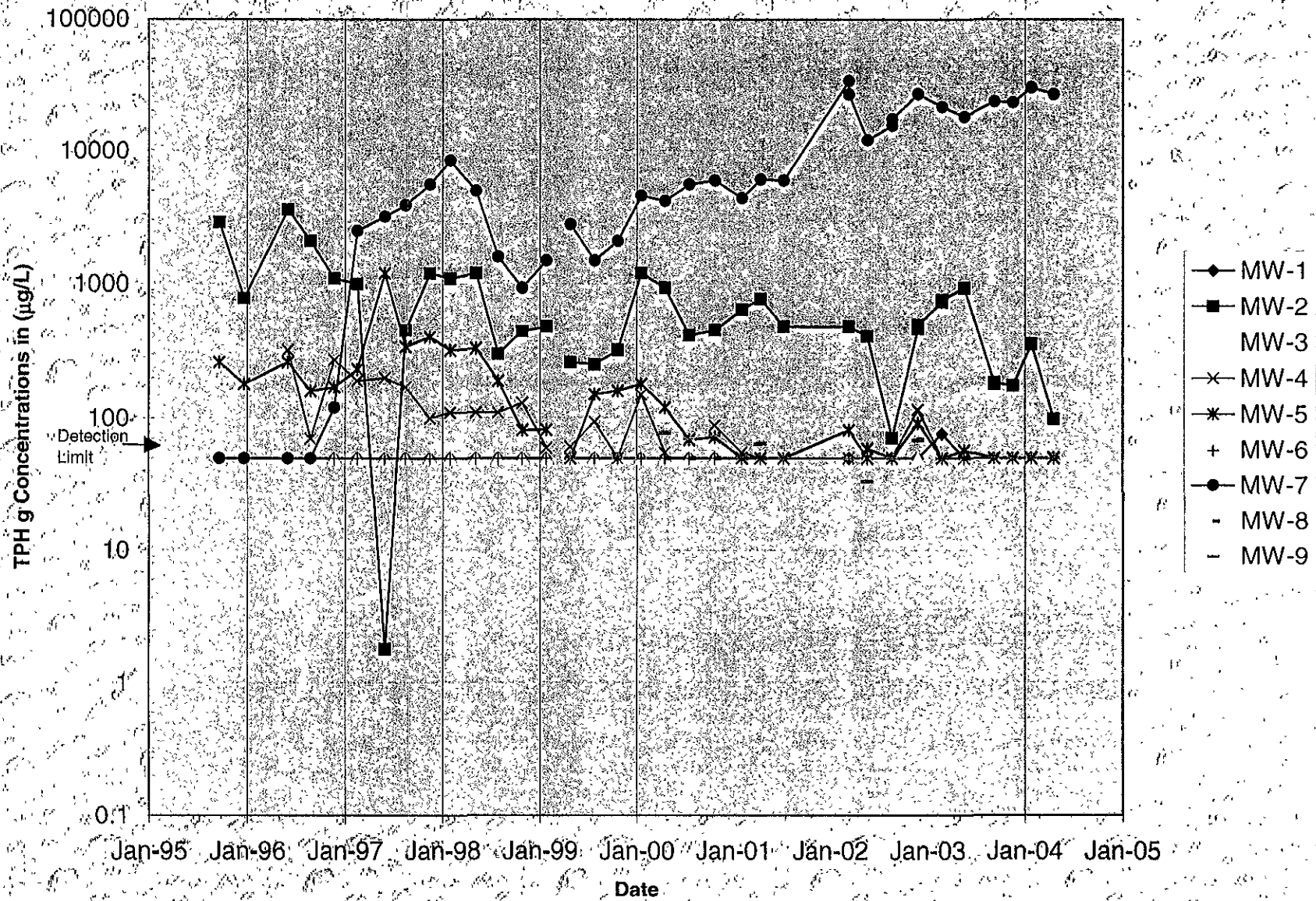
[Geotracker Home](#) | [Site/Facility Finder](#) | [Case Finder](#) | [MTBE/Case Reports](#)

APPENDIX B

HISTORICAL GROUNDWATER MONITORING RESULTS

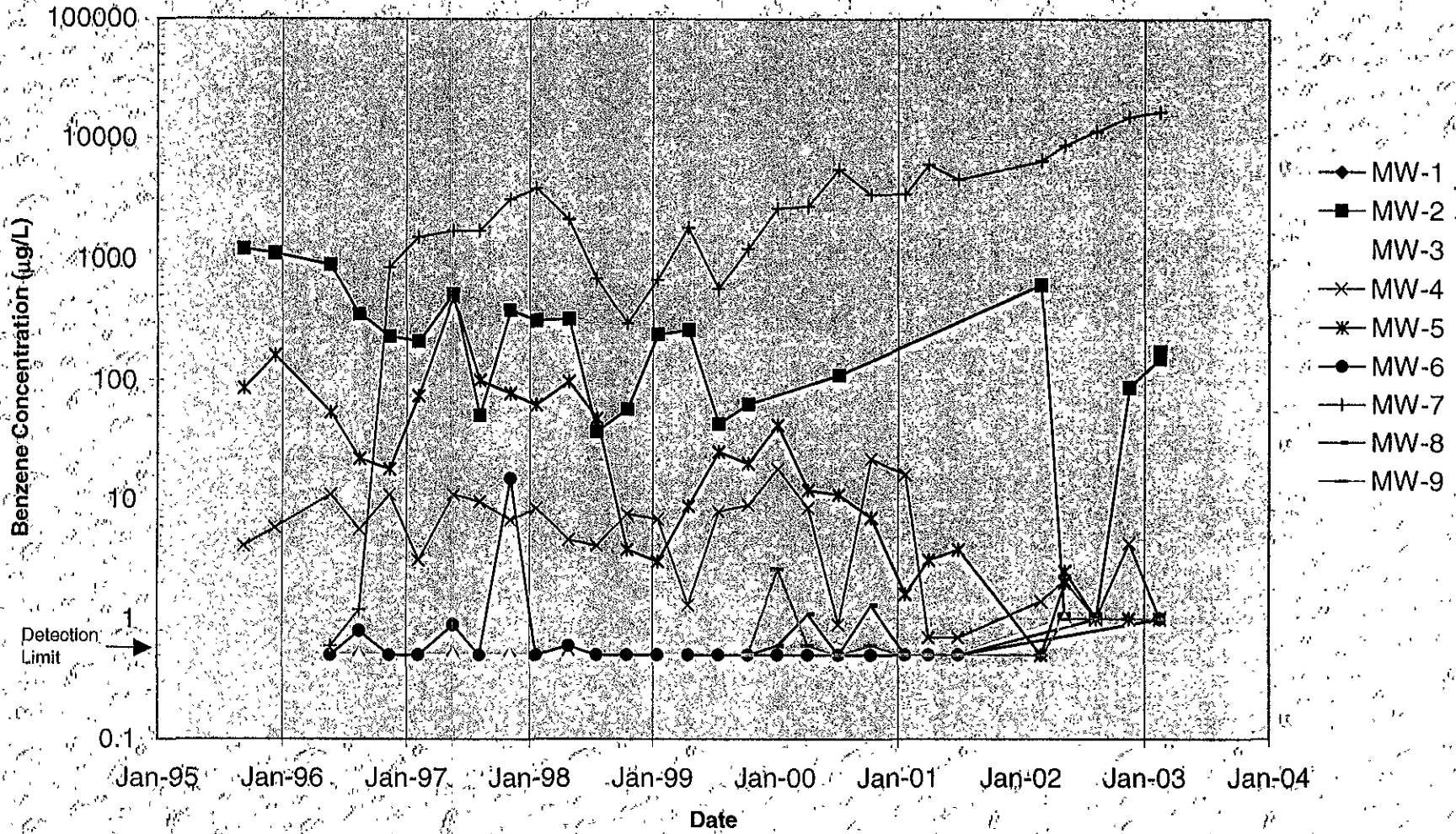
TPHg CONCENTRATIONS IN GROUNDWATER MONITORING WELLS

Sears Auto Center #1039 - Oakland, California



BENZENE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS

Sears Auto Center #1039 - Oakland, California



Appendix B
 Historical Groundwater Monitoring Results
 Sears Auto Center # 1039
 Oakland California
 (Page 2 of 5)

Well No.	Sample No.	Notes	Sample Date	Sample Period	Depth to Groundwater (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPHg $\mu\text{g/L}$	TPHd $\mu\text{g/L}$	TPHo $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethylbenzene $\mu\text{g/L}$	Xylenes $\mu\text{g/L}$	MTBE $\mu\text{g/L}$	ETBE $\mu\text{g/L}$	DIPE $\mu\text{g/L}$	TAME $\mu\text{g/L}$	TBA $\mu\text{g/L}$	PCE $\mu\text{g/L}$	TCE $\mu\text{g/L}$	1,2-DCA $\mu\text{g/L}$	cis-1,2 DCE $\mu\text{g/L}$	1,1-DCE $\mu\text{g/L}$	1,2,4-TMB $\mu\text{g/L}$	Naphthalene $\mu\text{g/L}$		
MW-2	MW-2	1	3/13/2003	Mar-03	14.75	0.00	20.50	5.75	729	< 500	< 2000	151	< 1	4.3	9.3	< 2	< 2	< 2	< 2	28	< 2.5	9.0	14.1	< 5	< 5	< 5	< 5	< 5	
MW-2	MW-2	1.2	3/13/2003	Mar-03	14.75	0.00	20.50	5.75	757	< 500	< 2000	172	< 1	5.9	10.8	< 2	< 2	< 2	< 2	26	< 2.5	9.6	17.6	< 5	< 5	< 5	< 5	< 5	
MW-2	MW-2	1.2	6/4/2003	Jun-03	14.43	0.00	20.50	6.07	930	< 500	< 2000	399.0	< 1	< 1	< 2	< 2	< 2	< 2	< 2	10	< 2.5	3.5	7.0	< 5	< 5	< 5	< 5	< 5	
MW-2	MW-2	1	9/25/2003	Sep-03	15.25	0.00	20.50	5.25	180	< 500	< 2000	23.7	< 1	< 1	< 2	< 2	< 2	< 2	< 2	10	< 2.5	6.8	9.8	< 5	< 5	< 5	< 5	< 5	
MW-2	MW-2	1.2	9/25/2003	Sep-03	15.25	0.00	20.50	5.25	184	< 500	< 2000	24.5	< 1	< 1	< 2	< 2	< 2	< 2	< 2	10	< 2.5	7.8	9.1	< 5	< 5	< 5	< 5	< 5	
MW-2	MW-2	1	12/2/2003	Dec-03	15.40	0.00	20.50	5.10	174	< 500	< 2000	5.2	< 1	< 1	< 2	< 2	< 2	< 2	< 2	10	< 2.5	4.4	5.7	< 5	< 5	< 5	< 5	< 5	
MW-2	MW-2	1	2/11/2004	Feb-04	14.85	0.00	20.50	5.65	353	< 500	< 2000	36.4	< 1	< 1	< 2	< 2	< 2	< 2	< 2	10	< 2.5	4	5.5	< 5	< 5	< 5	< 5	< 5	
MW-2	MW-2	1	5/5/2004	May-04	14.61	0.00	20.50	5.89	98	< 500	< 2000	27.6	< 1	< 1	< 2	< 2	< 2	< 2	< 2	10	< 2.5	6.1	11.6	< 5	< 5	< 5	< 5	< 5	
MW-3	MW-3	4	10/1/1995	Oct-95	--	--	96.15	--	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	ND	ND	--	--	--	--	--	
MW-3	MW-3	4	1/1/1996	Jan-96	--	--	96.15	--	ND	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	ND	ND	--	--	--	--	--	
MW-3	MW-3	4	6/12/1996	Jun-96	17.56	0.00	96.15	78.59	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	--	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--	--	--	--	
MW-3	MW-3	4	9/5/1996	Sep-96	18.32	0.00	96.15	77.83	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--	--	--	--	
MW-3	MW-3	4	12/3/1996	Dec-96	18.57	0.00	96.15	77.58	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	2.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	2/27/1997	Feb-97	17.43	0.00	96.15	78.72	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	6.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	6/10/1997	Jun-97	18.12	0.00	96.15	78.03	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	5.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	8/27/1997	Aug-97	18.47	0.00	96.15	77.68	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	5.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	11/26/1997	Nov-97	18.70	0.00	96.15	77.45	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	7.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	2/11/1998	Feb-98	17.76	0.00	96.15	78.39	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	7.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	5/19/1998	May-98	16.99	0.00	96.15	79.16	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	5.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	8/10/1998	Aug-98	17.51	0.00	96.15	78.64	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	
MW-3	MW-3	4	11/9/1998	Nov-98	18.07	0.00	96.15	78.08	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	--	5.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	2/8/1999	Feb-99	--	--	96.15	--	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	--	6.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	2/11/1999	Feb-99	18.07	0.00	96.15	78.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	MW-3	4	5/10/1999	May-99	17.04	0.00	96.15	79.11	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	--	5.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	8/9/1999	Aug-99	17.77	0.00	96.15	78.38	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	--	4.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	11/5/1999	Nov-99	18.00	0.00	96.15	78.15	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	--	7.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	2/1/2000	Feb-00	17.95	0.00	96.15	78.20	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	6.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	5/2/2000	May-00	16.83	0.00	96.15	79.32	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	6.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	8/1/2000	Aug-00	17.13	0.00	96.15	79.02	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	5.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	11/6/2000	Nov-00	17.54	0.00	96.15	78.61	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	7.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	2/16/2001	Feb-01	17.42	0.00	96.15	78.73	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	8.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	4/27/2001	Apr-01	16.80	0.00	96.15	79.38	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	8.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	4	7/24/2001	Jul-01	17.08	0.00	96.15	79.07	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	11.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-3	MW-3	3	3/27/2002	Mar-02	16.50	0.00	96.15	79.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	MW-3	1	6/5/2002	Jun-02	16.53	0.00	22.29	5.76	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	20.9	4.5	< 5	< 5	< 5	< 5	< 5	< 5
MW-3	MW-3	1	9/6/2002	Sep-02	16.95	0.00	22.29	5.34	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	28.0	9.3	< 5	< 5	< 5	< 5	< 5	< 5
MW-3	MW-3	1	12/12/2002	Dec-02	17.36	0.00	22.29	4.93	50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	28.7	12.7	< 5	< 5	< 5	< 5	< 5	< 5
MW-3	MW-3	1	3/13/2003	Mar-03	16.84	0.00	22.29	5.48	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	35.1	12.5	< 5	< 5	< 5	< 5	< 5	< 5
MW-3	MW-3	1	6/4/2003	Jun-03	16.54	0.00	22.29	5.75	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	40.3	11.5	< 5	< 5	< 5	< 5	< 5	< 5
MW-3	MW-3	1	9/25/2003	Sep-03	17.13	0.00	22.29	5.16	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	32.6	14.0	< 5	< 5	< 5	< 5	< 5	< 5
MW-3	MW-3	1	12/2/2003	Dec-03	17.40	0.00	22.29	4.89	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	25.9	13.2	< 5	< 5	< 5	< 5	< 5	< 5
MW-3	MW-3	1	2/11/2004	Feb-04	16.92	0.00	22.29	5.37	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	29.6	11.1	< 5	< 5	< 5	< 5	< 5	< 5
MW-3	MW-3	1	5/5/2004	May-04	16.68	0.00	22.29	5.61	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	33.7	10.5	< 5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	4	10/1/1995	Oct-95	--	0.00	92.01	--	< 50	--	--	4.1	ND	ND	ND	--	--	--	--	--	ND	ND	ND	--	--	--	--	--	
MW-4	MW-4	4	1/1/1996	Jan-96	--	0.00	92.01	--	< 50	--	--	5.8	ND	ND	ND	--	--	--	--	--	ND	ND	ND	--	--	--	--	--	
MW-4	MW-4	4	6/12/1996	Jun-96	14.21	0.00	92.01	77.80	320	--	< 0.5	11	< 0.5	< 0.5	< 2	--	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--	--	--	--	
MW-4	MW-4	4	9/5/1996	Sep-96	14.83	0.00	92.01	77.1																					

Appendix B
 Historical Groundwater Monitoring Results
 Sears Auto Center # 1039
 Oakland California
 (Page 3 of 5)

Well No.	Sample No.	Notes	Sample Date	Sample Period	Depth to Groundwater (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPHg $\mu\text{g/L}$	TPPd $\mu\text{g/L}$	TPHo $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethylbenzene $\mu\text{g/L}$	Xylenes $\mu\text{g/L}$	MTBE $\mu\text{g/L}$	ETBE $\mu\text{g/L}$	DIPE $\mu\text{g/L}$	TAME $\mu\text{g/L}$	TBA $\mu\text{g/L}$	PCE $\mu\text{g/L}$	TCE $\mu\text{g/L}$	1,2-DCA $\mu\text{g/L}$	cis-1,2 DCE $\mu\text{g/L}$	1,1-DCE $\mu\text{g/L}$	1,2,4-TMB $\mu\text{g/L}$	Naphthalene $\mu\text{g/L}$		
MW-4	MW-4	4	2/16/2001	Feb-01	13.65	0.00	92.01	78.36	55	--	< 1000	16	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	
MW-4	MW-4	4	4/27/2001	Apr-01	13.40	0.00	92.01	78.61	< 50	--	< 1000	0.7	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	
MW-4	MW-4	4	7/24/2001	Jul-01	13.69	0.00	92.01	78.32	< 50	--	< 1000	0.7	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	
MW-4	MW-4	1	3/27/2002	Mar-02	13.22	0.00	92.01	78.79	< 50	< 50	< 500	1.4	< 0.50	< 0.50	< 1.0	< 5.0	--	--	--	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
MW-4	MW-4	1	6/5/2002	Jun-02	13.00	0.00	18.61	5.61	< 50	< 500	< 2000	2.1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	--	--	--
MW-4	MW-4	1	9/6/2002	Sep-02	13.46	0.00	18.61	5.15	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	--	--	--	
MW-4	MW-4	1	12/12/2002	Dec-03	13.98	0.00	18.61	4.63	115	< 500	< 2000	4.3	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	--	--	--	
MW-4	MW-4	1	3/13/2003	Mar-03	13.28	0.00	18.61	5.33	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	1	6/4/2003	Jun-03	13.03	0.00	18.61	5.58	< 50	< 500	< 2000	4.4	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	1	9/25/2003	Sep-03	13.67	0.00	18.61	4.94	< 50	--	--	1.6	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	1	12/4/2003	Dec-03	13.94	0.00	18.61	4.67	< 50	--	--	2.5	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	1	2/11/2004	Feb-04	14.14	0.00	18.61	4.47	< 50	--	--	1.5	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.0	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	1	5/5/2004	May-04	13.44	0.00	18.61	5.17	< 50	--	--	1.0	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.0	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
MW-5	MW-5	4	10/7/1995	Oct-95	--	0.00	92.09	--	260	--	--	86	ND	ND	ND	--	--	--	--	--	ND	ND	ND	--	--	--	--	--	--
MW-5	MW-5	4	1/1/1996	Jan-96	--	0.00	92.09	--	180	--	--	160	3.6	ND	ND	--	--	--	--	--	ND	ND	ND	--	--	--	--	--	--
MW-5	MW-5	4	6/12/1996	Jun-96	14.13	0.00	92.09	77.96	260	--	--	54	1.1	< 0.5	< 2	--	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--	--	--	--	--
MW-5	MW-5	4	9/5/1996	Sep-96	14.77	0.00	92.09	77.32	160	--	--	22	1.0	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--	--	--	--	--
MW-5	MW-5	4	12/3/1996	Dec-96	13.99	0.00	92.09	78.10	170	--	--	18	0.6	< 0.5	< 2	6	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	2/27/1997	Feb-97	12.05	0.00	92.09	80.01	230	--	--	74	2.0	< 0.5	< 2	< 5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	6/10/1997	Jun-97	16.00	0.00	92.09	76.09	1,200	--	--	490	19.0	< 3.0	< 10	< 30	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	8/27/1997	Aug-97	14.55	0.00	92.09	77.54	340	--	--	100	4.6	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	11/26/1997	Nov-97	14.95	0.00	92.09	77.14	400	--	--	78	4.5	0.6	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	2/11/1998	Feb-98	13.97	0.00	92.09	78.12	320	--	--	62	2.9	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	5/19/1998	May-98	13.52	0.00	92.09	78.57	330	--	--	97	2.6	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	8/10/1998	Aug-98	13.97	0.00	92.09	78.12	190	--	--	48	1.9	< 0.5	< 0.5	11	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	11/9/1998	Nov-98	14.67	0.00	92.09	77.42	81	--	--	3.8	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	2/8/1999	Feb-99	--	--	92.09	--	82	--	--	3	< 0.5	< 0.5	< 0.5	3.8	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	2/11/1999	Feb-99	14.50	0.00	92.09	77.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	MW-5	4	5/10/1999	May-99	13.23	0.00	92.09	78.36	< 50	--	--	8.8	< 0.5	< 0.5	< 0.5	2.6<2.0*	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	8/9/1999	Aug-99	13.90	0.00	92.09	78.19	150	--	--	25	< 0.5	< 0.5	< 0.5	5.6<2.0*	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	11/5/1999	Nov-99	14.40	0.00	92.09	77.69	160	--	--	20	< 0.5	< 0.5	0.76	4.3<2.0*	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	2/1/2000	Feb-00	14.15	0.00	92.09	77.94	180	--	--	42	1.2	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	5/2/2000	May-00	13.10	0.00	92.09	78.99	120	--	--	22	0.7	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	8/1/2000	Aug-00	13.52	0.00	92.09	78.57	69	--	--	11	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	11/6/2000	Nov-00	13.93	0.00	92.09	78.16	72	--	--	7.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	2/16/2001	Feb-01	13.75	0.00	92.09	78.34	< 50	--	--	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	4/27/2001	Apr-01	12.95	0.00	92.09	79.14	< 50	--	--	3.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	4	7/24/2001	Jul-01	13.46	0.00	92.09	78.63	< 50	--	--	3.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--
MW-5	MW-5	1	3/27/2002	Mar-02	12.43	0.00	92.09	79.66	81	70	< 500	< 0.50	< 0.50	< 0.5	< 1.0	< 5.0	--	--	--	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	--	--	--
MW-5	MW-5	1	6/5/2002	Jun-02	12.68	0.00	18.76	6.08	50	< 500	< 2000	2.0	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	--	--	--
MW-5	MW-5	1,2	6/5/2002	Jun-02	12.68	0.00	18.76	6.08	50	< 500	< 2000	2.5	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	--	--	--
MW-5	MW-5	1	9/6/2002	Sep-02	13.18	0.00	18.76	5.58	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	--	--	--
MW-5	MW-5	1	12/12/2002	Dec-03	13.76	0.00	18.76	5.00	91	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	--	--	--
MW-5	MW-5	1	3/13/2003	Mar-03	13.09	0.00	18.76	5.67	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
MW-5	MW-5	1	6/4/2003	Jun-03	12.69	0.00	18.76	6.07	57	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
MW-5	MW-5	1	9/25/2003	Sep-03	13.45	0.00	18.76	5.31	< 50	--	--	< 1	< 1	<															

Appendix B
 Historical Groundwater Monitoring Results
 Sears Auto Center # 1039
 Oakland California
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Well No.	Sample No.	Notes	Sample Date	Sample Period	Depth to Groundwater (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPHg $\mu\text{g/L}$	TPHd $\mu\text{g/L}$	TPHo $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethylbenzene $\mu\text{g/L}$	Xylenes $\mu\text{g/L}$	MTBE $\mu\text{g/L}$	ETBE $\mu\text{g/L}$	DIPE $\mu\text{g/L}$	TAME $\mu\text{g/L}$	TBA $\mu\text{g/L}$	PCE $\mu\text{g/L}$	TCE $\mu\text{g/L}$	1,2-DCA $\mu\text{g/L}$	cis-1,2 DCE $\mu\text{g/L}$	1,1-DCE $\mu\text{g/L}$	1,2,4-TMB $\mu\text{g/L}$	Naphthalene $\mu\text{g/L}$	
MW-6	MW-6	4	3/9/1999	Aug-99	15.00	0.00	92.16	77.16	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	0.52	< 0.5	< 0.5	< 0.5	< 0.5	--	--	
MW-6	MW-6	4	11/5/1999	Nov-99	15.55	0.00	92.16	76.61	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	0.89	0.89	1.2	< 0.5	< 0.5	--	--	
MW-6	MW-6	4	2/1/2000	Feb-00	15.40	0.00	92.16	76.76	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	1.2	0.9	2.2	< 0.5	< 0.5	--	--	
MW-6	MW-6	4	5/2/2000	May-00	14.55	0.00	92.16	77.61	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	2.6	0.8	1.3	< 0.5	< 0.5	--	--	
MW-6	MW-6	4	8/1/2000	Aug-00	14.85	0.00	92.16	77.31	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	0.8	0.9	2.3	< 0.5	< 0.5	--	--	
MW-6	MW-6	4	11/6/2000	Nov-00	15.10	0.00	92.16	77.06	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	0.9	0.9	3.3	< 0.5	< 0.5	--	--	
MW-6	MW-6	4	2/16/2001	Feb-01	14.93	0.00	92.16	77.23	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	0.9	1.1	6.2	< 0.5	< 0.5	--	--	
MW-6	MW-6	4	4/27/2001	Apr-01	14.40	0.00	92.16	77.76	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	0.7	0.7	3.9	< 0.5	< 0.5	--	--	
MW-6	MW-6	4	7/24/2001	Jul-01	14.68	0.00	92.16	77.48	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	0.6	1	4.8	< 0.5	< 0.5	--	--	
MW-6	MW-6	3	3/27/2002	Mar-02	14.09	0.00	92.16	78.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	MW-6	3	6/5/2002	Jun-02	14.26	0.00	18.91	4.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	MW-6	3	9/6/2002	Sep-02	14.69	0.00	18.91	4.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	MW-6	1	12/12/2002	Dec-02	15.13	0.00	18.91	3.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	MW-6	1	3/13/2003	Mar-03	14.65	0.00	18.91	4.26	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	
MW-6	MW-6	1	6/4/2003	Jun-03	14.27	0.00	18.91	4.64	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	
MW-6	MW-6	1	9/25/2003	Sep-03	14.89	0.00	18.91	4.02	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	
MW-6	MW-6	1	12/4/2003	Dec-03	15.07	0.00	18.91	3.84	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	
MW-6	MW-6	1	2/11/2004	Feb-04	14.67	0.00	18.91	4.24	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	
MW-6	MW-6	1	5/5/2004	May-04	14.49	0.00	18.91	4.42	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	
MW-7	MW-7	4	10/1/1995	Oct-95	--	0.00	93.80	--	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	--	5.3	3.5	8.3	--	--	--	--
MW-7	MW-7	4	1/1/1996	Jan-96	--	0.00	93.80	--	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	--	9.3	4.8	5.7	--	--	--	--
MW-7	MW-7	4	6/12/1996	Jun-96	16.56	0.00	93.80	77.24	< 50	--	--	0.6	< 0.5	< 0.5	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	
MW-7	MW-7	4	9/5/1996	Sep-96	17.10	0.00	93.80	76.78	< 50	--	--	1.2	< 0.5	< 0.5	< 2	< 5	--	--	--	--	8.3	4.2	5.9	--	--	--	--	
MW-7	MW-7	4	12/3/1996	Dec-96	17.12	0.00	93.80	76.68	120	--	< 0.5	850	< 5	< 5	30	< 5	--	--	--	--	4	4	75	< 3	< 3	--	--	
MW-7	MW-7	4	2/27/1997	Feb-97	16.20	0.00	93.80	77.60	2,500	--	--	1500	3.0	23	< 10	< 30	--	--	--	--	2	4	65	< 0.5	< 0.5	--	--	
MW-7	MW-7	4	6/10/1997	Jun-97	17.00	0.00	93.80	76.80	3,200	--	--	1700	< 5	59	< 20	< 50	--	--	--	--	2	4.2	85	< 0.5	< 0.5	--	--	
MW-7	MW-7	4	8/27/1997	Aug-97	17.18	0.00	93.80	76.62	3,900	--	--	1700	8.0	200	40	90	--	--	--	--	< 3	5	93	< 3	< 3	--	--	
MW-7	MW-7	4	11/26/1997	Nov-97	17.40	0.00	93.80	76.40	5,600	--	--	3,100	15.0	190	30	90	--	--	--	--	3	5.9	120	1	< 0.5	--	--	
MW-7	MW-7	4	2/11/1998	Feb-98	16.65	0.00	93.80	77.15	8,500	--	--	3,800	25.0	250	80	90	--	--	--	--	4	8.9	90	1.2	< 0.5	--	--	
MW-7	MW-7	4	5/19/1998	May-98	15.56	0.00	93.80	77.84	5,800	--	--	2,100	440.0	150	220	300	--	--	--	--	2	3.8	74	0.6	< 0.5	--	--	
MW-7	MW-7	4	8/10/1998	Aug-98	16.48	0.00	93.80	77.32	1,600	--	--	690	< 10	13	< 10	< 50	--	--	--	--	< 3	3.3	100	< 2.5	< 2.5	--	--	
MW-7	MW-7	4	11/9/1998	Nov-98	16.98	0.00	93.80	76.82	930	--	--	295	5.5	4.3	1.5	8.7	--	--	--	--	< 4.2	6.5	110	< 2.5	< 2.5	--	--	
MW-7	MW-7	4	2/8/1999	Feb-99	--	--	93.80	--	1,500	--	--	670	< 10	14	< 10	< 50	--	--	--	--	6	3.4	74	< 1.2	< 1.2	--	--	
MW-7	MW-7	4	2/11/1999	Feb-99	16.94	0.00	93.80	76.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	MW-7	4	5/10/1999	May-99	15.87	0.00	93.80	77.93	2,800	--	--	1,800	16.0	81	130	63/2.8*	--	--	--	--	1	2.6	65	0.63	< 0.5	--	--	
MW-7	MW-7	4	3/9/1999	Aug-99	16.60	0.00	93.80	77.20	1,500	--	--	570	5.1	28	30	300/6.5*	--	--	--	--	< 1	1.2	95	0.57	< 0.5	--	--	
MW-7	MW-7	4	11/5/1999	Nov-99	17.01	0.00	93.80	76.79	2,100	--	--	1,200	< 5	61	25	150/11*	--	--	--	--	4	7.8	95	1.6	< 0.5	--	--	
MW-7	MW-7	4	2/1/2000	Feb-00	17.00	0.00	93.80	76.80	4,600	--	--	2,600	16.0	140	210	6.6	--	--	--	--	3	6	110	1.7	< 0.5	--	--	
MW-7	MW-7	4	5/2/2000	May-00	16.00	0.00	93.80	77.80	4,200	--	--	2,700	25	80	270	< 5.0	--	--	--	--	< 5.0	< 5.0	84	< 5.0	< 5.0	--	--	
MW-7	MW-7	4	8/1/2000	Aug-00	16.40	0.00	93.80	77.40	5,600	--	--	5,500	27	300	390	< 10	--	--	--	--	< 10	< 10	85	< 10	< 10	--	--	
MW-7	MW-7	4	11/6/2000	Nov-00	16.67	0.00	93.80	77.13	6,800	--	--	3,400	29	230	330	< 10	--	--	--	--	< 10	< 10	66	< 10	< 10	--	--	
MW-7	MW-7	4	2/16/2001	Feb-01	16.60	0.00	93.80	77.20	4,400	--	--	3,400	29	200	290	3.1	--	--	--	--	< 2	< 2	60	< 2	< 2	--	--	
MW-7	MW-7	4	4/27/2001	Apr-01	16.00	0.00	93.80	77.80	6,100	--	--	6,000	44	390	620	2.7	--	--	--	--	< 2.5	< 2.5	37	< 2.5	< 2.5	--	--	
MW-7	MW-7	4	7/24/2001	Jul-01	16.22	0.00	93.80	77.58	6,000	--	--	4,500	16	390	840	< 2.0	--	--	--	--	< 2.0	< 2.0	39	< 2.0	< 2.0	--	--	
MW-7	MW-7	4	3/27/2002	Mar-02	15.74	0.00	93.80	78.06	34,000	570	< 500	6,400	< 50	230	370	< 500	--	--	--	--	< 50.0	< 50	< 50	< 50.0	< 50.0	--	--	
MW-7	MW-7	1	3/27/2002	Mar-02	15.74	0.00	93.80	78.06	27,000	740	< 500	6,500	< 50	280	500	< 500	--	--	--	--	< 50.0	< 50	< 50	< 50.0	< 50.0	--	--	
MW-7	MW-7	1	6/5/2002	Jun-02	15.71	0.00	20.39	4.68	12,100	< 500	< 2000	8,700	25	173	510	< 2	< 2	< 2	< 2	< 10	< 2.0	< 2.5	< 5	< 5	< 5	--	--	
MW-7	MW-7	1	9/6/2002	Sep-02	16.16	0.00	20.39	4.23	15,600	< 500	< 2000	11,500	< 1	< 1	515	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	--	--	
MW-7	MW-7	1,2	9/6/2002	Sep-02	16.16	0.00	20.39	4.23	17,400	< 500	< 2000	11,300	< 1	< 1	510	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	--	--	
MW-7	MW-7	1	12/12/2002	Dec-02	16.57	0.00	20.39	3.82	27,200	< 500	< 2000	15,100	21.3	248	640	< 10	< 10	< 10	< 10	< 10	< 2.5	< 2.5	18.3	< 5	< 5	--	--	
MW-7	MW-7	1	3/13/2003	Mar-03	16.12	0.00	20.39	4.27	21,600	--	--	16,700	< 1	445	1,070	< 2	< 2											

Appendix B
 Historical Groundwater Monitoring Results
 Sears Auto Center # 1039
 Oakland California
 (Page 5 of 5)

Well No.	Sample No.	Notes	Sample Date	Sample Period	Depth to Groundwater (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPHg $\mu\text{g/L}$	TPHd $\mu\text{g/L}$	TPHo $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethylbenzene $\mu\text{g/L}$	Xylenes $\mu\text{g/L}$	MTBE $\mu\text{g/L}$	ETBE $\mu\text{g/L}$	DIPE $\mu\text{g/L}$	TAME $\mu\text{g/L}$	TBA $\mu\text{g/L}$	PCE $\mu\text{g/L}$	TCE $\mu\text{g/L}$	1,2-DCA $\mu\text{g/L}$	cis-1,2 DCE $\mu\text{g/L}$	1,1-DCE $\mu\text{g/L}$	1,2,4-TMB $\mu\text{g/L}$	Naphthalene $\mu\text{g/L}$	
MW-8	MW-8	3	3/27/2002	Mar-02	16.87	0.00	94.49	77.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	MW-8	3	6/5/2002	Jun-02	16.31	0.00	21.12	4.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	MW-8	1	9/6/2002	Sep-02	17.26	0.00	21.12	3.86	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	4.5	< 2.5	< 5	< 5	< 5	--	--	
MW-8	MW-8	1	12/12/2002	Dec-02	17.62	0.00	21.12	3.50	69	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	--	--		
MW-8	MW-8	1	3/13/2003	Mar-03	17.19	0.00	21.12	3.93	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	5.2	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-8	MW-8	1	6/4/2003	Jun-03	16.80	0.00	21.12	4.32	< 50	< 500	< 2000	1.2	< 1	< 1	< 2	< 2	< 2	< 2	< 10	2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-8	MW-8	1	9/25/2003	Sep-03	17.39	0.00	21.12	3.73	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	4.7	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-8	MW-8	1	12/4/2003	Dec-03	17.63	0.00	21.12	3.49	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	3.3	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-8	MW-8	1	2/11/2004	Feb-04	17.26	0.00	21.12	3.86	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-8	MW-8	1	5/5/2004	May-04	17.82	0.00	21.12	4.10	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	3.3	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-9	MW-9	4	11/5/1999	Nov-99	16.86	0.00	92.54	75.68	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	3/2.4*	--	--	--	--	65	29	32	< 0.5	< 0.5	--	--	
MW-9	MW-9	4	2/1/2000	Feb-00	16.70	0.00	92.54	75.84	< 50	--	--	2.6	< 0.5	< 0.5	< 0.5	3.0*	--	--	--	--	60	22	36	0.7	< 0.5	--	--	
MW-9	MW-9	4	5/2/2000	May-00	16.02	0.00	92.54	76.52	77	--	--	0.6	< 0.5	< 0.5	< 0.5	2.0*	--	--	--	--	39	19	30	0.5	< 0.5	--	--	
MW-9	MW-9	4	8/1/2000	Aug-00	16.34	0.00	92.54	76.20	70	--	--	< 0.5	< 0.5	< 0.5	< 0.5	2.7	--	--	--	--	41	19	37	0.7	< 0.5	--	--	
MW-9	MW-9	4	11/6/2000	Nov-00	16.55	0.00	92.54	75.99	74	--	--	0.6	< 0.5	< 0.5	< 0.5	3.2	--	--	--	--	31	15	34	0.8	< 0.5	--	--	
MW-9	MW-9	4	2/16/2001	Feb-01	16.31	0.00	92.54	76.23	52	--	--	< 0.5	< 0.5	< 0.5	< 0.5	3.4	--	--	--	--	26	14	33	0.9	< 0.5	--	--	
MW-9	MW-9	4	4/27/2001	Apr-01	15.90	0.00	92.54	76.64	64	--	--	< 0.5	< 0.5	< 0.5	< 0.5	1.9	--	--	--	--	42	16	38	0.6	< 0.5	--	--	
MW-9	MW-9	4	7/21/2001	Jul-01	16.19	0.00	92.54	76.35	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	1.7	--	--	--	--	31	12	34	0.7	< 0.5	--	--	
MW-9	MW-9	1	3/27/2002	Mar-02	15.61	0.00	92.54	76.93	< 50	< 50	< 500	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	--	--	--	--	32	10	17	0.73	< 0.50	--	--	
MW-9	MW-9	1	6/5/2002	Jun-02	15.71	0.00	19.20	3.49	33.2	< 500	< 2000	< 1	< 1	< 1	< 2	2.3	< 2	< 2	< 2	< 10	33.2	12	< 5	< 5	< 5	--	--	
MW-9	MW-9	1	9/6/2002	Sep-02	16.13	0.00	19.20	3.49	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	28.1	10.6	24.2	< 5	< 5	--	--		
MW-9	MW-9	1	12/12/2002	Dec-02	16.48	0.00	19.20	2.72	68	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	26.3	10.3	12.0	< 5	< 5	--	--		
MW-9	MW-9	1	3/13/2003	Mar-03	16.07	0.00	19.20	3.13	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	31.3	13.8	16.5	< 5	< 5	< 5	< 5	< 5	
MW-9	MW-9	3	6/4/2003	Jun-03	15.63	0.00	19.20	3.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	MW-9	1	9/25/2003	Sep-03	16.27	0.00	19.20	2.93	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	25.2	9.7	11.7	< 5	< 5	< 5	< 5	< 5	
MW-9	MW-9	1	12/4/2003	Dec-03	16.39	0.00	19.20	2.81	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	25.3	12.0	13.0	< 5	< 5	< 5	< 5	< 5	
MW-9	MW-9	1	2/11/2004	Feb-04	16.05	0.00	19.20	3.15	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	42	13.9	17.6	< 5	< 5	< 5	< 5	< 5	
MW-9	MW-9	1	5/5/2004	May-04	15.95	0.00	19.20	3.25	< 50	--	--	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	34.9	13.9	26.2	< 5	< 5	< 5	< 5	< 5	

Notes

- 1: "Post-purge" sample
- 2: Duplicate sample
- 3: Well not sampled
- 4: Data obtained from Previous Consultant
- = Not applicable and/or no measurements taken/provided
- Historical data before June 1996 as reported by previous consultants
- MSL = Mean Sea Level
- * = Duplicate analysis for historical MTBE detections (previous consultant)
- ND = Not detected at or above the method detection limit
- bgs = below ground surface
- $\mu\text{g/L}$ = micrograms per liter

< = Analyte not detected above indicated method detection limit
 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)
 TPHo = Total Petroleum Hydrocarbons as oil range hydrocarbons by EPA Method 8015 (modified)
 PCE = Tetrachloroethene
 TCE = Trichloroethene
 1,2-DCA = 1,2-Dichloroethane
 cis-1,2-DCE = cis-1,2-Dichloroethene
 1,1-DCE = 1,1-Dichloroethene
 1,2,4-TMB = 1,2,4-Trimethylbenzene

MTBE - Methyl tert-Butyl ether (Prior to 5/99 analyzed using EPA Method 8020; 1999 duplicates and all post-1999 samples analyzed using EPA Method 8260)
 DIPE - Di-isopropyl Ether
 TAME - Tertiary Amyl Methyl Ether
 TBA - Tertiary Butyl Alcohol
 ETBE - Ethyl Tertiary Butyl Ether

APPENDIX C

LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS



Southland Technical Services, Inc.
Environmental Laboratories

05-17-2004

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

Project: 29863493.04012/Sears Oakland 1039
Project Site: 1901 Telegraph Ave., Oakland, CA
Sample Date: 05-05-2004
Lab Job No.: UR405035

Dear Mr. Rowlands:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 05-06-2004 and analyzed for the following parameters:

EPA 8015M (Gasoline)
EPA 8260B (VOCs 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

05-17-2004

Client: URS Corporation
 Project: 29863493.04012/Sears Oakland 1039
 Project Site: 1901 Telegraph Ave., Oakland, CA
 Matrix: Water
 Batch No.: AE12-GW1

Lab Job No.: UR405035
 Date Sampled: 05-05-2004
 Date Received: 05-06-2004
 Date Analyzed: 05-12-2004

EPA 8015M (Gasoline)
Reporting Unit: µg/L (ppb)

Date of Analysis for TPH (Gasoline)		05-12-04	05-12-04	05-12-04	05-12-04	05-12-04	
Preparation Method for TPH (Gasoline)		5030	5030	5030	5030	5030	
LAB SAMPLE LD.			UR405035-1	UR405035-2	UR405035-3	UR405035-4	
CLIENT SAMPLE LD.			MW-1	MW-2	MW-3	MW-4	
Analyte	MDL	MB					
TPH-Gasoline (C4 - C12)	50	ND	ND	98	ND	ND	
Surrogate	Spk Conc.	ACP%	MB %RC	%RC	%RC	%RC	
BFB (for TPH-Gasoline)	20 ppb	70-130	102	94	96	77	105

Date of Analysis for TPH (Gasoline)		05-12-04	05-12-04	05-12-04	05-12-04	05-12-04	
Preparation Method for TPH (Gasoline)		5030	5030	5030	5030	5030	
LAB SAMPLE LD.		UR405035-5	UR405035-6	UR405035-7	UR405035-8	UR405035-9	
CLIENT SAMPLE LD.		MW-5	MW-6	MW-7	MW-8	MW-9	
Analyte	MDL						
TPH-Gasoline (C4 - C12)	50	ND	ND	27,000	ND	ND	
Surrogate	Spk Conc.	ACP%	%RC	%RC	%RC	%RC	
BFB (for TPH-Gasoline)	20 ppb	70-130	98	97	84	104	99

Date of Analysis for TPH (Gasoline)		05-12-04	05-12-04	05-12-04	05-12-04	
Preparation Method for TPH (Gasoline)		5030	5030	5030	5030	
LAB SAMPLE LD.			UR405035-10	UR405035-12	UR405035-11	
CLIENT SAMPLE LD.			DUP-1	EB-1	Trip Blank	
Analyte	MDL	MB				
TPH-Gasoline (C4 - C12)	50	ND	35,800	ND	ND	
Surrogate	Spk Conc.	ACP%	MB %RC	%RC	%RC	%RC
BFB (for TPH-Gasoline)	20 ppb	70-130	102	85	82	81

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.: UR405035

Date Reported: 05-17-2004

Project: 29863493.04012/Sears Oakland 1039

Matrix: Water

Date Sampled: 05-05-2004

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

Date ANALYZED		05-07-04	05-07-04	05-07-04	05-07-04	05-07-04	05-07-04	05-07-04
PREPARATION METHOD		5030	5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1	1	1
LAB SAMPLE I.D.			UR405035-1	UR405035-2	UR405035-3	UR405035-4	UR405035-5	UR405035-6
CLIENT SAMPLE I.D.			MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
COMPOUND	MDL	MB						
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane(EDC)	5	ND	ND	11.6	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	27.6	ND	1.0	ND	ND
Trichloroethene	2.5	ND	4.3	6.1	10.5	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND	ND
Toluene	1	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2.5	ND	38.2	ND	33.7	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND	ND



Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR405035

Date Reported: 05-17-2004

Project: 29863493.04012/Sears Oakland 1039 Matrix: Water

Date Sampled: 05-05-2004

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	MW-6
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	2	ND	ND	ND	ND	ND	ND	ND
Styrene	5	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
Acetone	25	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	25	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	25	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	25	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	25	ND	ND	ND	ND	ND	ND	ND
Ethanol	500	ND	ND	ND	ND	ND	ND	ND
MTBE	2	ND	ND	ND	ND	ND	ND	ND
ETBE	2	ND	ND	ND	ND	ND	ND	ND
DIPE	2	ND	ND	ND	ND	ND	ND	ND
TAME	2	ND	ND	ND	ND	ND	ND	ND
t-Butyl Alcohol	10	ND	ND	ND	ND	ND	ND	ND
SURROGATE	Accept Limit%	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	79-126	98	117	106	121	104	113	104
Toluene-d8	79-121	101	99	99	98	95	103	99
Bromofluoro-benzene	71-131	85	84	84	90	86	90	91

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

Note: Surrogate spike concentration is 25 ppb for all compounds.



Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR405035

Date Reported: 05-17-2004

Project: 29863493.04012/Sears Oakland 1039 Matrix: Water

Date Sampled: 05-05-2004

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

Date ANALYZED		05-07-04	05-07-04	05-07-04	05-07-04	05-07-04	05-07-04	05-07-04
PREPARATION METHOD		5030	5030	5030	5030	5030	5030	5030
DILUTION FACTOR		1	100	1	1	100	1	1
LAB SAMPLE I.D.			UR405035-7	UR405035-8	UR405035-9	UR405035-10	UR405035-12	UR405035-11
CLIENT SAMPLE I.D.			MW-7	MW-8	MW-9	DUP-1	EB-1	Trip Blank
COMPOUND	MDL	MB						
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane(EDC)	5	ND	ND	ND	26.2	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	17,000	ND	ND	15,700	ND	ND
Trichloroethene	2.5	ND	ND	ND	13.9	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND	ND
Toluene	1	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2.5	ND	ND	3.3	34.9	ND	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND	ND



Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation
 Project: 29863493.04012/Sears Oakland 1039

Lab Job No.: UR405035
 Matrix: Water

Date Reported: 05-17-2004
 Date Sampled: 05-05-2004

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

COMPOUND	MDL	MB	MW-7	MW-8	MW-9	DUP-1	EB-1	Trip Blank
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	ND	782	ND	ND	715	ND	ND
Total Xylenes	2	ND	841	ND	ND	938	ND	ND
Styrene	5	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
Acetone	25	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	25	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	25	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	25	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	25	ND	ND	ND	ND	ND	ND	ND
Ethanol	500	ND	ND	ND	ND	ND	ND	ND
MTBE	2	ND	ND	ND	ND	ND	ND	ND
ETBE	2	ND	ND	ND	ND	ND	ND	ND
DIPE	2	ND	ND	ND	ND	ND	ND	ND
TAME	2	ND	ND	ND	ND	ND	ND	ND
t-Butyl Alcohol	10	ND	ND	ND	ND	ND	ND	ND
SURROGATE	Accept Limit%	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	79-126	98	103	106	111	92	100	93
Toluene-d4	79-121	101	102	107	102	100	93	96
Bromofluoro-benzene	71-131	85	83	89	90	87	96	90

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

Note: Surrogate spike concentration is 25 ppb for all compounds.



Southland Technical Services, Inc.
Environmental Laboratories

05-17-2004

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

Client: URS Corporation
Project: 29863493.04012/Sears Oakland 1039
Matrix: Water
Batch No.: AE12-GW1

Lab Job No.: UR405035
Lab Sample ID: UR405035-1
Date Analyzed: 05-12-2004

**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	1000	858	980	85.8	98.0	13.3	30	70-130

**II. LCS Result
Unit: ppb**

Analyte	LCS Report Value	True Value	Rec.%	%Rec Accept. Limit
TPH-G	963	1000	96.3	80-120

ND: Not Detected (at the specified limit).



Southland Technical Services, Inc.
Environmental Laboratories

05-17-2004

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

Client: URS Corporation
Project: 29863493.04012/Sears Oakland 1039
Matrix: Water
Batch No: 0506-VOAW2

Lab Job No.: UR405035
Sample ID: R405040-1
Date Analyzed: 05-07-2004

**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	17.9	18.1	89.5	90.5	1.1	30	70-130
Benzene	ND	20	18.3	18.8	91.5	94.0	2.7	30	70-130
Trichloro-ethene	ND	20	17.5	18.5	87.5	92.5	5.6	30	70-130
Toluene	ND	20	17.9	19.1	89.5	95.5	6.5	30	70-130
Chlorobenzene	ND	20	19.8	17.7	99.0	88.5	11.2	30	70-130

**II. LCS Result
Unit: ppb**

Analyte	LCS Value	True Value	Rec. %	Accept. Limit
1,1-Dichloroethene	21.8	20.0	109.0	80-120
Benzene	19.4	20.0	97.0	80-120
Trichloro-ethene	17.9	20.0	89.5	80-120
Toluene	19.4	20.0	97.0	80-120
Chlorobenzene	19.5	20.0	97.5	80-120

ND: Not Detected.

APPENDIX D
URS DATA VALIDATION REPORTS

Level III Data Validation Summary

PROJECT: Sears Oakland 1039
LABORATORY: Southland Technical Services, Inc. (STS)
MATRIX: Water
LAB PROJECT #: UR405035
SAMPLES: See table below

Field ID	QC Designations	Lab ID	TPH-Gasoline	VOCs (including Fuel Oxygenates)
Trip Blank	Trip Blank	UR405035-12	X	X
MW-5		UR405035-5	X	X
MW-6		UR405035-6	X	X
MW-4		UR405035-4	X	X
MW-8		UR405035-8	X	X
MW-2		UR405035-2	X	X
MW-3		UR405035-3	X	X
MW-1		UR405035-1	X	X
MW-9		UR405035-9	X	X
EB-1	Equipment blank	UR405035-11	X	X
MW-7		UR405035-7	X	X
DUP-1	Field duplicate of MW-7	UR405035-10	X	X

Date Sampled: 05/05/04

TPH-Gasoline= Total petroleum hydrocarbons – gasoline range (C4-C12)

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 t-butyl ether (MTBE).

STS is certified by California Department of Health Services (Certificate Number 1986).

DATA REVIEW MATRIX

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

✓ = Quality control evaluation criteria met.

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 Level III validation covering the QC parameters listed in the table above, these data 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
TPH-Gasoline	50
VOCs	1 to 25
MTBE	2
TBA	10
Ethanol	500
Other Oxygenates	2

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

Samples MW-7 and DUP-1 required dilution for the 8260B analysis due to the high concentration of non-target and target analytes (gasoline, benzene, ethyl benzene, and total xylenes). For these samples, there are also non-detect VOCs and fuel oxygenates results with elevated reporting limits. The data user must evaluate the utility of non-detect VOCs, and fuel oxygenates results with elevated reporting limits.