URS

April 28, 2003

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

RE: 2002 Fourth 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 Fourth Quarter 2002. Quarterly groundwater monitoring will continue within the current scope of work during the second quarter of 2003. Please feel free to contact Taras Kruk or me at 714.835.6886 if you have questions or comments.

Respectfully Submitted,
URS CORPORATION

Joseph R. Rowlands for

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

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

URS

2002 FOURTH 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
April 28, 2003

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URS JOB NO. 29863493
FOR SEARS, ROEBUCK & CO.

1.0 INTRODUCTION

This report has been prepared by URS Corporation on behalf of Sears, Roebuck & Co. (Sears). It presents results of the 2002 Fourth Quarter Groundwater Monitoring conducted at the above-referenced Site (Figure 1). The Sears Auto Center (Site) is located at 1901-1911 Telegraph Avenue in Oakland, California. The groundwater monitoring event consisted of "post purge" groundwater sample collection from eight of nine monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, and 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). The property is occupied by a Sears Auto Center, a former Chevron Service Station, and a three-story above-grade parking garage, and a paved parking lot.

3.0 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 (RWQCB, San Francisco Bay Region, June 1999).

4.0 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 USTs and a used oil UST were installed at former Chevron Service Station. 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 the oversight of the Oakland Fire Department and the ACEHS on January 29, 1988, prior to Sears' ownership of the Site. 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-range organics (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 9 groundwater monitoring wells (MW-1 to 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 bases since June 1993. Wells MW-5, MW-6 and MW-7 have been monitored on a periodic basis since June 1994. Historical monitoring data shows that dissolved phase TPHg and dissolved phase benzene have been detected in 5 of 9 wells. Available historical groundwater data (since October 1995); including depth to water, groundwater elevation, and hydrocarbon and Volatile Organic Compounds (VOC's) concentrations; are summarized in Appendix A.

5.0 HEALTH AND SAFETY PLAN

Prior to initiating the field activities, URS prepared a site-specific Health & Safety plan to:

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

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

6.0 QUARTERLY GROUNDWATER MONITORING

The 2002 Fourth Quarter Groundwater Monitoring was performed on December 12, 2002. The monitoring consisted of groundwater gauging of all nine wells, and purging and sampling the following eight wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, and MW-9. A description of the monitoring procedures is presented in the following section.

6.1 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. Groundwater depths and elevations for the 2002 fourth quarter are listed in Table 1 and Appendix A.

6.2 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 oxygen 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 measured field parameters are listed in Table 1.

Groundwater samples were collected from eight selected monitoring wells for laboratory analysis during the 2002 Fourth Quarter Groundwater Monitoring event. Groundwater samples were collected from the discharge tubing of the well pump following well 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-2 and labeled BD-1. One equipment blank sample (EB-1) was collected by pumping deionized water through the pump and pre-cleaned discharge tubing 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 maintained at a temperature of 4 to 7 degrees centigrade and transported to a Southland Technical Services, Inc., a California Department of Health Services (DHS) accredited laboratory for analysis. Chain-of-custody records were maintained throughout the sampling program.

7.2 LABORATORY ANALYTICAL RESULTS

TPHg was detected in six of the eight groundwater samples (MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, and MW-9). Detected TPHg concentrations ranged from 50 micrograms per liter (µg/L) in the sample collected from well MW-3 to 27,200 µg/L in the sample collected from well MW-7. TPHg has not previously been detected in samples collected from well MW-8. The sample collected from MW-8 contained a TPHg concentration of 69 µg/L, which is slightly above the method detection limit (MDL) of 50 µg/L. This detected concentration may be an anomalous result and the presence or absence of TPHg in well MW-8 should be confirmed during future quarterly sampling events. TPHd and TPHo were not detected (ND) in any of the wells sampled this quarter.

Benzene was detected in three of the eight samples (MW-2, MW-4, and MW-7). Detected benzene concentrations ranged from 4.3 µg/L in the sample collected from well MW-4 to 15,100 µg/L in the sample collected from well MW-7. Toluene was detected in the groundwater sample collected from well MW-7 at a concentration of 21.3 µg/L. Ethylbenzene was detected in groundwater samples collected from wells MW-2 and MW-7 with concentrations of 2.9 µg/L and 248 µg/L, respectively. Xylenes were detected in groundwater samples collected from wells MW-2 and MW-7 with concentrations of 8.6 µg/L and 640 µg/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-7, and MW-9. Detected concentrations of chlorinated VOCs ranged from 2.7 µg/L to 35.1 µg/L.

Other VOCs including n-propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, n-butylbenzene, and naphthalene were detected in samples collected from wells MW-7 and/or MW-9 at concentrations ranging from 6.5 µg/L to 158 µg/L. These compounds are typically components of gasoline.

Chemical analysis results of the 2002 Fourth Quarter Groundwater Monitoring are presented in Table 2. A copy of the laboratory reports and chain-of-custody records are included in Appendix B. Groundwater isoconcentration maps for TPHg and Benzene for the 2002 fourth 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's Data Validation Memos are included in Appendix C.

8.0 DISCUSSION

The 2002 fourth quarter groundwater monitoring event represents the 29th groundwater sampling event conducted at the Site. Groundwater elevations have decreased approximately 0.45 feet since the last sampling event conducted in September 2002. Groundwater flow direction is towards the east with a gradient of 0.010, which is consistent with previous monitoring events. TPHg and benzene were detected in seven of the eight wells sampled with concentrations up to 27,200 µg/L and 15,100 µg/L, respectively. The suspected source is the former gasoline USTs and fuel dispensing area of the former Chevron station on the Site.

Chlorinated VOCs have been detected in both the upgradient well MW-1 and the downgradient well MW-9 during this, and previous, groundwater sampling events. Potential onsite sources of the chlorinated compounds have not been identified; however, a widespread dissolved 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 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 a diameter of approximately 250 feet.

9.0 SCHEDULE

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

- Quarterly groundwater monitoring of wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9: June 2003,
- Submittal of 2003 Second Quarter Groundwater Monitoring Report to ACEHS: July 2003.

ACEHS will be notified of upcoming field activities.

-o0o-

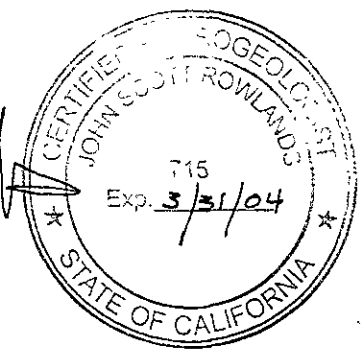
Should you have any questions or comments, please do not hesitate to contact us.

Respectfully Submitted,

URS CORPORATION

Joseph Liles
Senior Staff Geologist

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



10.0 REFERENCES

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URS Corporation, 2002. *2002 First Quarter Groundwater Monitoring,* Former Sears Retail Center #1039, 1901- 1911 Telegraph Avenue, Oakland, California, August 5.

URS Corporation, 2002. *2002 Second Quarter Groundwater Monitoring,* Former Sears Retail Center #1039, 1901- 1911 Telegraph Avenue, Oakland, California, September 30.

URS Corporation, 2002. *2002 Third Quarter Groundwater Monitoring,* Former Sears Retail Center #1039, 1901- 1911 Telegraph Avenue, Oakland, California, December 12.

TABLES

Table 1
2002 4th 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)	Temp. (Celsius)	pH	Cond (µS/cm)	O.R.P. (mV)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
MW-1	12/12/2002	--	NA	15.67	20.99	5.32	20.54	6.26	569	171.5	15.3	1.02
MW-2	12/12/2002	--	NA	15.41	20.50	5.09	21.93	6.22	1353	-59.2	4.1	0.27
MW-3	12/12/2002	--	NA	17.36	22.29	4.93	22.52	6.12	580	153.4	5.8	0.36
MW-4	12/12/2002	--	NA	13.98	18.61	4.63	22.44	6.42	1068	-37.1	0.2	0.19
MW-5	12/12/2002	--	NA	13.76	18.76	5.00	22.15	6.53	1017	-116.5	229.3	0.39
MW-6	12/12/2002	4	NA	15.13	18.91	3.78	NA	NA	NA	NA	NA	NA
MW-7	12/12/2002	--	NA	16.57	20.39	3.82	22.16	6.28	653	-83.6	72.6	0.46
MW-8	12/12/2002	--	NA	17.62	21.12	3.50	21.45	6.39	277	40.8	149.2	2.64
MW-9	12/12/2002	--	NA	16.48	19.20	2.72	22.85	6.39	611	101.1	16.7	0.24

Notes:

MSL - Mean Sea Level
BGS - Below ground surface
Groundwater Elevation reference to MSL
Groundwater Elevation = Top of casing elevation - Depth to Water
1 Sheen observed on water surface
2 Petroleum odor in groundwater
3 Well casing damaged
4 Well not sampled
SP - Separate phase product in well
NA - Not analyzed/Not available

µS/cm - microSiemens per centimeter
mV - millivolt
mg/L - milligrams per liter
NTU - nephelometric turbidity units

Table 2
2002 4th Quarter Groundwater Analytical Results
Sears Retail Center Store No. 1039
Oakland, California

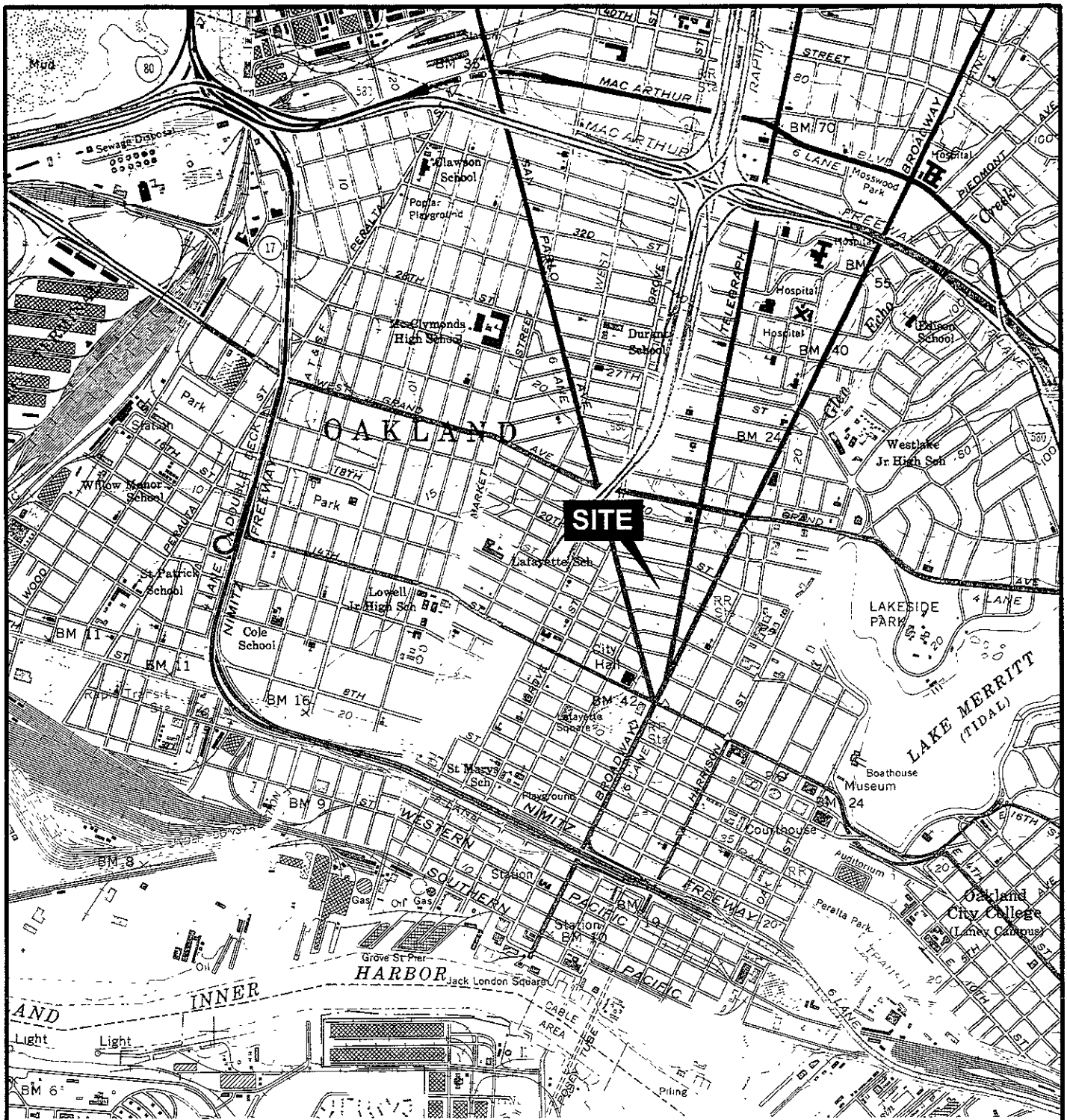
Monitoring Well No.	Sample Date	Notes	LABORATORY ANALYTICAL RESULTS																			
			8015M			Volatile Organics by GC/MS 8260B																
			TPHg (µg/L)	TPHd (µg/L)	TPHo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	PCE (µg/L)	TCE (µg/L)	1,2-DCA (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)	n-Propylbenzene (µg/L)	n-Butylbenzene (µg/L)	Napthalene (µg/L)
MW-1	12/12/2002		< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	35.1	2.7	< 5	< 5	< 5	< 5	< 5	< 5
MW-2	12/12/2002		461	< 500	< 2000	86.5	< 1	2.9	8.6	< 2	< 2	< 2	< 2	< 10	< 2.5	6.5	8.4	< 5	< 5	< 5	< 5	< 5
	12/12/2002	1	493	< 500	< 2000	87.2	< 1	3.7	9.5	< 2	< 2	< 2	< 2	< 10	< 2.5	7.3	9.3	< 5	< 5	< 5	< 5	< 5
MW-3	12/12/2002	--	50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	28.7	12.7	< 5.0	< 5	< 5	< 5	< 5	< 5
MW-4	12/12/2002	--	115	< 500	< 2000	4.3	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5
MW-5	12/12/2002	--	91	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5
MW-6	12/12/2002	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-7	12/12/2002	--	27,200	< 500	< 2000	15,100	21.3	248	640	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	18.3	158	46.0	13.2	31.3	56.2
MW-8	12/12/2002	--	69	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	< 5
MW-9	12/12/2002	--	68	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	26.3	10.3	12.0	< 5	< 5	< 5	33	< 5

Notes:

1: Duplicate sample
2: Petroleum odor in groundwater
3: Well casing is damaged
4: Well not Sampled
J - Bunker-C detections were quatitated against the diesel standard and flagged as estimated concentrations
< - Analyte not detected above indicated method detection limit
NA: Not analyzed/Not available.

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 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
PCE - Tetrachloroethane
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-TBM - 1,2,4-Trimethylbenzene
1,3,5-TBM - 1,3,5-Trimethylbenzene

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.

0 1/2 1
Scale in Miles

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L:/sears oakland/topo #1039.fh10

Williams Street

San Pablo Avenue

Telegraph Avenue

19th Street

Parking Garage

MW-05

MW-04

MW-02

MW-06

Canopy

Former Chevron Station

Former Waste Oil UST Location

Removed Dispensers

Vent Pipes

MW-09

MW-01

MW-07

Former Gasoline UST Locations

Sears Auto Center Service Bay

Show Room

MW-08

Used Tire Storage Area

Stock Room

MW-03

N

0 25 50

Scale in Feet

EXPLANATION

MW-15 **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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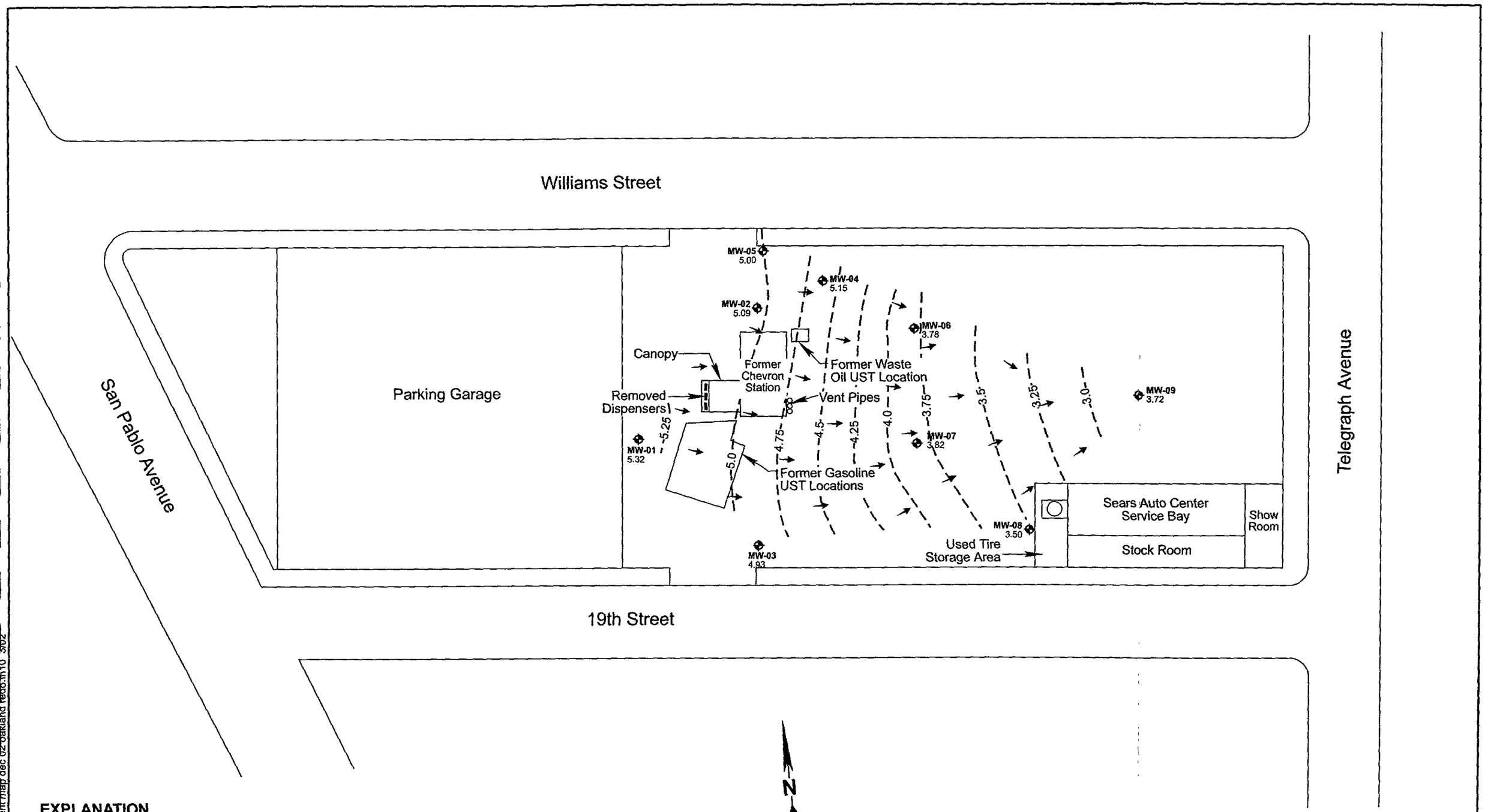
L:\Sears Oakland\oakland plot plan.mh10 4/03


Williams Street
San Pablo Avenue
Telegraph Avenue
19th Street
Parking Garage
MW-05
5.00
MW-04
5.15
MW-02
5.09
MW-06
3.78
MW-09
3.72
MW-07
3.82
MW-01
5.32
MW-08
3.50
MW-03
4.93
Canopy
Former Chevron Station
Removed Dispensers
Former Waste Oil UST Location
Vent Pipes
Former Gasoline UST Locations
-5.25
5.0
4.75
4.5
4.25
4.0
3.75
3.5
3.25
3.0
Sears Auto Center Service Bay
Show Room
Stock Room
Used Tire Storage Area
N
0
25
50
Scale in Feet
EXPLANATION
MW-15 MONITORING WELL LOCATION
GROUNDWATER CONTOUR
GROUNDWATER FLOW VECTOR
525 GROUNDWATER ELEVATION
GROUNDWATER GRADIENT MAP (DECEMBER 2002)
Project: SEARS AUTO CENTER #1039, 1901-1911 TELEGRAPH AVE., OAKLAND, CA
Project No.: 29863493
Sample Date: DECEMBER 2002
Figure 3
URS
J:/Sears Oakland/Gw gradient map dec 02/oakland reson10 sh02

Williams Street

San Pablo Avenue

Telegraph Avenue

19th Street

Parking Garage

MW-05
91

MW-04
115

MW-02
461

MW-06
NA

MW-09
68

MW-01
<50

MW-07
27,200

MW-08
69

MW-03
50

Canopy

Former
Chevron
Station

Removed
Dispensers

Former
Waste Oil
UST Location

Vent Pipes

Former Gasoline
UST Locations

100

1,000

10,000

?

Sears Auto Center
Service Bay

Show
Room

Stock Room

Used Tire
Storage Area

N

0 25 50
Scale in Feet

EXPLANATION

MW-02
27,200
MONITORING WELL LOCATION WITH TPHg CONCENTRATION IN µg/L

--100-- TPHg ISOCONCENTRATION CONTOUR (100 µg/L)

TPHg ISOCONCENTRATION CONTOUR PLOT PLAN MAP (DECEMBER 2002)

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

Project No.: 29863493

Sample Date: DECEMBER 12, 2002

Figure 4

URS

C:/Sears Oakland/TPHG iso 02/dec oakland.mxd 10 2/03

Williams Street

San Pablo Avenue

Telegraph Avenue

19th Street

Parking Garage

MW-05 <1.0

MW-04 4.3

MW-02 86.5

MW-06 NA

MW-09 <1.0

MW-07 15,100

MW-01 <1.0

MW-03 <1.0

MW-08 <1.0

Canopy

Former Chevron Station

Former Waste Oil UST Location

Removed Dispensers

Vent Pipes

Former Gasoline UST Locations

Sears Auto Center Service Bay

Show Room

Stock Room

Used Tire Storage Area

1

10

100

1,000

10,000

?

N

0 25 50

Scale in Feet

EXPLANATION

MW-07 15,100 — MONITORING WELL LOCATION WITH BENZENE CONCENTRATION IN µg/L

— — 10 — — BENZENE ISOCONCENTRATION CONTOUR (10 µg/L)

BENZENE ISOCONCENTRATION CONTOUR MAP (DECEMBER 2002)

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

Project No.: 29863493

Sample Date: DECEMBER 12, 2002

Figure 5

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J:\Sears\Oakland\benzene iso DEC 02 Oakland.mxd 2/03

APPENDIX A

HISTORICAL GROUNDWATER MONITORING RESULTS

Appendix A
Historical Groundwater Monitoring Results
Sears Auto Center # 1039
Oakland California
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Well No.	Sample No.	Notes	Sample Date	Sample Period	GROUNDWATER LEVELS: Depth to Groundwater (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	LABORATORY ANALYTICAL RESULTS: Anal. Units	TPHg	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	ETBE	DIPE	TAME	TBA	PCE	TCE	1,2-DCA	cis-1,2 DCE	1,1-DCE
MW-1	MW-1	5	10/1/1995	Oct-95	--	--	94.34	--	µg/L	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	9.9	ND	ND	--	--
MW-1	MW-1	5	1/1/1996	Jan-96	--	--	94.34	--	µg/L	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	9.9	14	ND	--	--
MW-1	MW-1	5	6/12/1996	Jun-96	16.21	0.00	94.34	78.13	µg/L	< 50	--	--	< 0.5	1.4	< 0.5	< 2	--	--	--	--	--	12	< 0.5	< 0.5	--	--
MW-1	MW-1	5	9/5/1996	Sep-96	16.89	0.00	94.34	77.45	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	12	< 0.5	< 0.5	--	--
MW-1	MW-1	5	12/3/1996	Dec-96	17.07	0.00	94.34	77.27	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/27/1997	Feb-97	15.55	0.00	94.34	78.79	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	31	1.3	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	6/10/1997	Jun-97	16.46	0.00	94.34	77.88	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	19	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	8/27/1997	Aug-97	16.97	0.00	94.34	77.37	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	16	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	11/26/1997	Nov-97	17.24	0.00	94.34	77.10	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	17	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/11/1998	Feb-98	16.07	0.00	94.34	78.27	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 3	< 5.0	--	--	--	--	20	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	5/19/1998	May-98	15.43	0.00	94.34	78.91	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 4	< 5.0	--	--	--	--	14	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	8/10/1998	Aug-98	15.98	0.00	94.34	78.36	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 5	< 2.5	--	--	--	--	14	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	11/9/1998	Nov-98	16.63	0.00	94.34	77.71	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	3.1	--	--	--	--	16	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/8/1999	Feb-99	--	--	94.34	--	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 5	< 2.5	--	--	--	--	< 0.5	20	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/11/1999	Feb-99	16.55	0.00	94.34	77.79	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	MW-1	5	5/10/1999	May-99	15.50	0.00	94.34	78.84	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	14	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	8/9/1999	Aug-99	15.82	0.00	94.34	78.52	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	14	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	11/5/1999	Nov-99	16.29	0.00	94.34	78.05	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	20	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/1/2000	Feb-00	16.02	0.00	94.34	78.32	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	24	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	5/2/2000	May-00	14.48	0.00	94.34	79.86	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	23	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	8/1/2000	Aug-00	15.20	0.00	94.34	79.14	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	21	0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	11/6/2000	Nov-00	15.63	0.00	94.34	78.71	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	31	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/16/2001	Feb-01	15.45	0.00	94.34	78.89	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	32	0.7	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	4/27/2001	Apr-01	14.86	0.00	94.34	79.48	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	33	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	7/24/2001	Jul-01	--	0.00	94.34	--	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	MW-1	2	3/28/2002	Mar-02	14.52	0.00	94.34	79.82	µg/L	< 50	77	< 500	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	--	--	--	--	33	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	2	6/5/2002	Jun-02	14.72	0.00	20.99	6.27	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	27.1	< 2.5	< 5.0	< 5.0	< 5.0
MW-1	MW-1	2	9/6/2002	Sep-02	15.15	0.00	20.99	5.84	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	32.3	< 2.5	< 5.0	< 5.0	< 5.0
MW-1	MW-1	2	12/12/2002	Dec-03	15.67	0.00	20.99	5.32	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	35.1	2.7	< 5.0	< 5.0	< 5.0
MW-2	MW-2	5	10/1/1995	Oct-95	--	--	93.95	--	µg/L	2,900	--	--	1,200	5.4	41	5.9	--	--	--	--	--	ND	40	280	--	--
MW-2	MW-2	5	1/1/1996	Jan-96	--	--	93.95	--	µg/L	780	--	--	1,100	11.0	100	6.9	--	--	--	--	--	ND	38	270	--	--
MW-2	MW-2	5	6/12/1996	Jun-96	16.01	0.00	93.95	77.94	µg/L	3,600	--	--	890	7.0	56	10	--	--	--	--	--	< 3	40	160	--	--
MW-2	MW-2	5	9/5/1996	Sep-96	16.66	0.00	93.95	77.29	µg/L	2,100	--	--	350	3.0	17	10	< 5.0	--	--	--	--	< 0.5	29	95	1.9	55
MW-2	MW-2	5	12/3/1996	Dec-96	16.20	0.00	93.95	77.75	µg/L	1,100	--	--	230	2.4	7.8	7	40	--	--	--	--	< 0.5	20	86	7	< 0.5
MW-2	MW-2	5	2/27/1997	Feb-97	14.46	0.00	93.95	79.49	µg/L	1,000	--	--	210	2.3	6	3	12	--	--	--	--	1	25	63	< 0.5	< 0.5
MW-2	MW-2	5	6/10/1997	Jun-97	14.00	0.00	93.95	79.95	µg/L	1.8	--	--	510	3.0	6	< 10	< 30	--	--	--	--	1	19	47	4.9	< 0.5
MW-2	MW-2	5	8/27/1997	Aug-97	16.55	0.00	93.95	77.40	µg/L	450	--	--	51	< 0.5	1.4	< 2	11	--	--	--	--	0.5	16	29	4.2	0.3
MW-2	MW-2	5	11/26/1997	Nov-97	16.86	0.00	93.95	77.09	µg/L	1,200	--	--	360	5.8	9	12	< 30	--	--	--	--	1	13	79	3.1	< 0.5
MW-2	MW-2	5	2/11/1998	Feb-98	15.85	0.00	93.95	78.10	µg/L	1,100	--	--	310	4.0	9.3	9	8	--	--	--	--	< 0.5	16	0.5	2.6	0.6
MW-2	MW-2	5	5/19/1998	May-98	15.32	0.00	93.95	78.63	µg/L	1,200	--	--	320	2.1	9.9	8	20	--	--	--	--	1	14	47	1.6	< 0.5
MW-2	MW-2	5	8/10/1998	Aug-98	15.82	0.00	93.95	78.13	µg/L	300	--	--	37	1.0	1.2	0.9	40	--	--	--	--	< 0.5	11	36	2.4	< 0.5
MW-2	MW-2	5	11/9/1998	Nov-98	16.53	0.00	93.95	77.42	µg/L	440	--	--	57	< 0.5	1.7	< 0.5	< 2.5	--	--	--	--	< 0.5	12	25	2.3	< 0.5
MW-2	MW-2	5	2/8/1999	Feb-99	--	--	93.95	--	µg/L	480	--	--	240	2.3	8.9	5	11	--	--	--	--	< 0.5	11	36	1.4	< 0.5
MW-2	MW-2	5	2/11/1999	Feb-99	16.38	0.00	93.95	77.57	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	MW-2	5	5/10/1999	May-99	15.19	0.00	93.95	78.76	µg/L	260	--	--	260	2.2	7.9	4.2	24/<2.0	--	--	--	--	< 0.5	7	24	3.4	< 0.5
MW-2	MW-2	5	8/9/1999	Aug-99	16.09	0.00	93.95	77.86	µg/L	250	--	--	43	0.79	0.54	< 0.5	14/<2.0	--	--	--	--	< 0.5	11	33	2.6	< 0.5
MW-2	MW-2	5	11/5/1999	Nov-99	16.20	0.00	93.95	77.75	µg/L	320	--	--	63	0.68	0.65	1.1	11/<2.0	--	--	--	--	< 0.5	13	41	1.3	< 0.5
MW-2	MW-2	5	2/1/2000	Feb-00	16.00	0.00	93.95	77.95	µg/L	1200	--	--	610/590*	4.4/6.3*	63/65*	5.9/7.1*	< 0.5	--	--	--	--	< 0.5	15	73	2	< 0.5
MW-2	MW-2	5	5/2/2000	May-00	14.50	0.00	93.95	79.05	µg/L	930	--	--	540/490*	3.7/<5.0*	19/14*	14/11*	< 0.5	--	--	--	--	< 0.5	8.4	32	4.5	< 0.5
MW-2	MW-2	5	8/1/2000	Aug-00	15.25	0.00	93.95	78.70	µg/L	410	--	--	110	1.2	4.8	1.6	< 0.5	--	--	--	--	< 0.5	9.4	23	2.9	< 0.5
MW-2	MW-2	5	11/6/2000	Nov-00	15.45	0.00	93.95	78.50	µg/L	450	--	--	150/130*	09/20*	4.1/3.7*	1.1/1.0*	20	--	--	--	--	< 0.5	10	38	1.6	0.5
MW-2	MW-2	5	2/16/2001	Feb-01	15.50	0.00	93.95	78.45	µg/L	640	--	--	360/390*	4.4/4.1*	19/17*	8.6/8.1*	< 0.5	--	--	--	--	< 0.5	11	19	2.5	< 0.5
MW-2	MW-2	5	4/27/2001	Apr-01	14.83	0.00	93.95	79.12	µg/L	770	--	--	450/510	5.3/5.5	6.4/10	6.3/7.2	< 0.5	--	--	--	--	< 0.5	4.4	11	4.0	< 0.5
MW-2	MW-2	5	7/24/2001	Jul-01	15.18	0.00	93.95	78.77	µg/L	480	--	--	130/120	1.7/1.6	8.9/8.1	4.5/5.8	0.5	--	--	--	--	< 0.5	7.2	15	3.0	< 0.5
MW-2	MW-2	2	3/27/2002	Mar-02	14.41	0.00	93.95	79.54	µg/L	420	< 50	< 500	610	< 0.50	19	14	< 5.0	--	--	--	--	< 0.50	5.1	8.9	< 0.50	< 0.50
MW-2	MW-2	2	6/5/2002	Jun-02	14.41	0.00	20.59	6.09	µg/L	486	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	16.7	< 2.5	4.6	< 5.0	< 5.0
MW-2	MW-2	2	9/6/2002	Sep-02	14.91	0.00	20.59	5.59	µg/L	71	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	15.7	< 2.5	2.7	< 5.0	< 5.0
MW-2	MW-2	2	12/12/2002	Dec-03	15.41	0.00	20.59	5.09	µg/L	461	< 500	< 2000	66.5	< 1.0	2.9	8.6	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.5	6.5	8.4	< 5.0	< 5.0
MW-2	MW-2	2,3	12/12/2002	Dec-03	15.41	0.00	20.59	5.09	µg/L	493	< 500	< 2000	87.2	< 1.0	3.7	9.5	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.5	7.3	9.3	< 5.0	< 5.0
MW-3	MW-3	5	10/1/1995	Oct-95	--	--	96.15	--	µg/L	< 50	--	--	ND		ND	ND	--	--	--	--	--	ND	ND	ND	--	--
MW-3	MW-3	5	1/1/1996	Jan-96	--	--	96.15	--	µg/L	ND	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	ND	ND	--	--
MW-3	MW-3	5	6/12/1996	Jun-96	17.56	0.00	96.15	78.59	µg/L	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	--	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--
MW-3	MW-3	5	9/5/1996	Sep-96	18.32	0.00	96.15	77.83	µg/L	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--
MW-3	MW-3	5	12/3/1996	Dec-96	18.57	0.00	96.15	77.58	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	2.3	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	2/27/1997	Feb-97	17.43	0.00	96.15	78.72	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	6.3	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	6/10/1997	Jun-97	18.12	0.00	96.15	78.03	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	5.9	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	8/27/1997	Aug-97	18.47	0.00	96.15	77.68	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	5.8	< 0.5	< 0.5	< 0.5	< 0.5

Appendix A
Historical Groundwater Monitoring Results
Sears Auto Center # 1039
Oakland California
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					GROUNDWATER LEVELS				LABORATORY ANALYTICAL RESULTS																
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)	Anal. Units	TPHg	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	ETBE	DIPE	TAME	TBA	PCE	TCE	1,2-DCA	cis-1,2 DCE	1,1-DCE
MW-7	MW-7	5	3/27/2002	Mar-02	15.74	0.00	93.80	78.06	µg/L	34,000	570	< 500	6,400	< 50	230	370	< 500	--	--	--	--	< 50.0	< 50	< 50	< 50.0	< 50.0
MW-7	MW-7	2	3/27/2002	Mar-02	15.74	0.00	93.80	78.06	µg/L	27,000	740	< 500	6,500	< 50	280	500	< 500	--	--	--	--	< 50.0	< 50	< 50	< 50.0	< 50.0
MW-7	MW-7	2	6/5/2002	Jun-02	15.71	0.00	20.39	4.68	µg/L	12,100	< 500	< 2000	8,700	25	173	510	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 2.0	< 2.5	< 5.0	< 5.0	< 5.0
MW-7	MW-7	2	9/6/2002	Sep-02	16.16	0.00	20.39	4.23	µg/L	15,600	< 500	< 2000	11,500	< 1.0	< 1.0	515	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 2.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-7	MW-7	2,3	9/6/2002	Sep-02	16.16	0.00	20.39	4.23	µg/L	17,400	< 500	< 2000	11,300	< 1.0	< 1.0	510	< 2.0	< 2.0	< 2.0	< 2.0	< 10.3	< 2.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-7	MW-7	2	12/12/2002	Dec-03	16.57	0.00	20.39	3.82	µg/L	27,200	< 500	< 2000	15,100	21.3	248.0	640	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 2.5	< 2.5	18.3	< 5.0	< 5.0
MW-8	MW-8	5	11/5/1999	Nov-99	18.15	0.00	94.49	76.34	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	6.2	< 0.5	< 0.5	< 0.5	< 0.5
MW-8	MW-8	5	2/1/2000	Feb-00	18.10	0.00	94.49	76.39	µg/L	< 50	--	--	0.6	< 0.5	< 0.5	< 0.5	< 0.5*	--	--	--	--	7.8	< 0.5	< 0.5	< 0.5	< 0.5
MW-8	MW-8	5	5/2/2000	May-00	17.26	0.00	94.49	77.23	µg/L	< 50	--	--	1.1	< 0.5	< 0.5	< 0.5	< 0.5*	--	--	--	--	5.9	< 0.5	< 0.5	< 0.5	< 0.5
MW-8	MW-8	5	8/1/2000	Aug-00	17.52	0.00	94.49	76.97	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	5.6	< 0.5	< 0.5	< 0.5	< 0.5
MW-8	MW-8	5	11/6/2000	Nov-00	17.83	0.00	94.49	76.66	µg/L	< 50	--	--	1.3	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	5.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-8	MW-8	5	2/16/2001	Feb-01	17.74	0.00	94.49	76.75	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	6.0	< 0.5	< 0.5	< 0.5	< 0.5
MW-8	MW-8	5	4/27/2001	Apr-01	17.10	0.00	94.49	77.39	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	4.2	< 0.5	< 0.5	< 0.5	< 0.5
MW-8	MW-8	5	7/24/2001	Jul-01	17.33	0.00	94.49	77.16	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	4.9	< 0.5	< 0.5	< 0.5	< 0.5
MW-8	MW-8	4	3/27/2002	Mar-02	16.87	0.00	94.49	77.62	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	MW-8	4	6/5/2002	Jun-02	16.81	0.00	21.12	4.31	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	MW-8	2	9/6/2002	Sep-02	17.26	0.00	21.12	3.86	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	4.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-8	MW-8	2	12/12/2002	Dec-03	17.62	0.00	21.12	3.50	µg/L	69	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 2.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-9	MW-9	5	11/5/1999	Nov-99	16.86	0.00	92.54	75.68	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	3/2.4*	--	--	--	--	65	29	32	<0.5	< 0.5
MW-9	MW-9	5	2/1/2000	Feb-00	16.70	0.00	92.54	75.84	µg/L	< 50	--	--	2.6	< 0.5	< 0.5	< 0.5	3.0*	--	--	--	--	60	22	36	0.7	< 0.5
MW-9	MW-9	5	5/2/2000	May-00	16.02	0.00	92.54	76.52	µg/L	77	--	--	0.6	< 0.5	< 0.5	< 0.5	2.0*	--	--	--	--	39	19	30	0.5	< 0.5
MW-9	MW-9	5	8/1/2000	Aug-00	16.34	0.00	92.54	76.20	µg/L	70	--	--	< 0.5	< 0.5	< 0.5	< 0.5	2.7	--	--	--	--	41	19	37	0.7	< 0.5
MW-9	MW-9	5	11/6/2000	Nov-00	16.55	0.00	92.54	75.99	µg/L	74	--	--	0.6	< 0.5	< 0.5	< 0.5	3.2	--	--	--	--	31	15	34	0.8	< 0.5
MW-9	MW-9	5	2/16/2001	Feb-01	16.31	0.00	92.54	76.23	µg/L	52	--	--	< 0.5	< 0.5	< 0.5	< 0.5	3.4	--	--	--	--	26	14	33	0.9	< 0.5
MW-9	MW-9	5	4/27/2001	Apr-01	15.90	0.00	92.54	76.64	µg/L	64	--	--	< 0.5	< 0.5	< 0.5	< 0.5	1.9	--	--	--	--	42	16	38	0.6	< 0.5
MW-9	MW-9	5	7/24/2001	Jul-01	16.19	0.00	92.54	76.35	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	1.7	--	--	--	--	31	12	34	0.7	< 0.5
MW-9	MW-9	2	3/27/2002	Mar-02	15.61	0.00	92.54	76.93	µg/L	< 50	< 50	< 500	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	--	--	--	--	32	10	17	0.73	< 0.50
MW-9	MW-9	2	6/5/2002	Jun-02	15.71	0.00	19.20	3.49	µg/L	33.2	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	2.3	< 2.0	< 2.0	< 2.0	< 10.0	33.2	12	< 5.0	< 5.0	< 5.0
MW-9	MW-9	2	9/6/2002	Sep-02	16.13	0.00	19.20	3.49	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	28.1	10.6	24.2	< 5.0	< 5.0
MW-9	MW-9	2	12/12/2002	Dec-03	16.48	0.00	19.20	2.72	µg/L	68	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	26.3	10.3	12.0	< 5.0	< 5.0

Notes

-- = Not applicable and/or no measurements taken/provided
1: "Pre-purge" sample
2: "Post-purge" sample
3: Duplicate sample
4. Well not sampled
5. Data obtained from Previous Consultant
6. Well was not accessible during gauging/sampling event
MSL = Mean Sea Level
Groundwater Elevation =
Top of casing elevation -(Depth to Water - (0.8 * Standing Product thickness).
J = Sample analyzed beyond holding time. The analyte was positively identified;
the associated numerical value is the approximate concentration of the analyte
in the sample.
* = Duplicate Sample

< = Analyte not detected above indicated method detection limit
TPHg = Total Petroleum Hydrocarbons as gasoline range hydrocarbons by EPA Method 8015 (modified)
TPHd = Total Petroleum Hydrocarbonsas diesel range hydrocarbons by EPA Method 8015 (modified)
TRPo = Total Petroleum Hydrocarbons as oil range by EPA Method 8015 (modified)
ND = Not detected at or above the method detection limit
SP = Seperate-phase petroleum hydrocarbons present, not sampled
PCE = Tetrachloroehtene
1,2-DCA = 1,2-Dichloroethane
TCE = Trichloroehtene
cis-1,2-DCE = cis-1,2 Dichloroethene
1,1-DCE = 1,1-Dichloroethene

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
Notes: Historical data before June 1996 as reported by previous consultants

Appendix A
Historical Groundwater Monitoring Results
Sears Auto Center # 1039
Oakland California
(Page 1 of 4)

					GROUNDWATER LEVELS				LABORATORY ANALYTICAL RESULTS																
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)	Anal. Units	TPHg	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	ETBE	DIPE	TAME	TBA	PCE	TCE	1,2-DCA	cis-1,2 DCE	1,1-DCE
MW-1	MW-1	5	10/1/1995	Oct-95	--	--	94.34	--	µg/L	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	9.9	ND	ND	--	--
MW-1	MW-1	5	1/1/1996	Jan-96	--	--	94.34	--	µg/L	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	9.9	14	ND	--	--
MW-1	MW-1	5	6/12/1996	Jun-96	16.21	0.00	94.34	78.13	µg/L	< 50	--	--	< 0.5	1.4	< 0.5	< 2	--	--	--	--	--	12	< 0.5	< 0.5	--	--
MW-1	MW-1	5	9/5/1996	Sep-96	16.89	0.00	94.34	77.45	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	12	< 0.5	< 0.5	--	--
MW-1	MW-1	5	12/3/1996	Dec-96	17.07	0.00	94.34	77.27	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/27/1997	Feb-97	15.55	0.00	94.34	78.79	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	31	1.3	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	6/10/1997	Jun-97	16.46	0.00	94.34	77.88	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	19	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	8/27/1997	Aug-97	16.97	0.00	94.34	77.37	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	16	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	11/26/1997	Nov-97	17.24	0.00	94.34	77.10	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	17	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/11/1998	Feb-98	16.07	0.00	94.34	78.27	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 3	< 5.0	--	--	--	--	20	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	5/19/1998	May-98	15.43	0.00	94.34	78.91	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 4	< 5.0	--	--	--	--	14	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	8/10/1998	Aug-98	15.98	0.00	94.34	78.36	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 5	< 2.5	--	--	--	--	14	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	11/9/1998	Nov-98	16.63	0.00	94.34	77.71	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	3.1	--	--	--	--	16	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/8/1999	Feb-99	--	--	94.34	--	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 5	< 2.5	--	--	--	--	< 0.5	20	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/11/1999	Feb-99	16.55	0.00	94.34	77.79	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	MW-1	5	5/10/1999	May-99	15.50	0.00	94.34	78.84	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	14	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	8/9/1999	Aug-99	15.82	0.00	94.34	78.52	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	14	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	11/5/1999	Nov-99	16.29	0.00	94.34	78.05	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	20	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/1/2000	Feb-00	16.02	0.00	94.34	78.32	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	24	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	5/2/2000	May-00	14.48	0.00	94.34	79.86	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	23	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	8/1/2000	Aug-00	15.20	0.00	94.34	79.14	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	21	0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	11/6/2000	Nov-00	15.63	0.00	94.34	78.71	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	31	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	2/16/2001	Feb-01	15.45	0.00	94.34	78.89	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	32	0.7	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	4/27/2001	Apr-01	14.86	0.00	94.34	79.48	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	33	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	5	7/24/2001	Jul-01	--	0.00	94.34	--	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	MW-1	2	3/28/2002	Mar-02	14.52	0.00	94.34	79.82	µg/L	< 50	77	< 500	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	--	--	--	--	33	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	MW-1	2	6/5/2002	Jun-02	14.72	0.00	20.99	6.27	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	27.1	< 2.5	< 5.0	< 5.0	< 5.0
MW-1	MW-1	2	9/6/2002	Sep-02	15.15	0.00	20.99	5.84	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	32.3	< 2.5	< 5.0	< 5.0	< 5.0
MW-1	MW-1	2	12/12/2002	Dec-03	15.67	0.00	20.99	5.32	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	35.1	2.7	< 5.0	< 5.0	< 5.0
MW-2	MW-2	5	10/1/1995	Oct-95	--	--	93.95	--	µg/L	2,900	--	--	1,200	5.4	41	5.9	--	--	--	--	--	ND	40	280	--	--
MW-2	MW-2	5	1/1/1996	Jan-96	--	--	93.95	--	µg/L	780	--	--	1,100	11.0	100	6.9	--	--	--	--	--	ND	38	270	--	--
MW-2	MW-2	5	6/12/1996	Jun-96	16.01	0.00	93.95	77.94	µg/L	3,600	--	--	890	7.0	56	10	--	--	--	--	--	< 2	40	160	--	--
MW-2	MW-2	5	9/5/1996	Sep-96	16.66	0.00	93.95	77.29	µg/L	2,100	--	--	350	3.0	17	10	< 5.0	--	--	--	--	< 0.5	29	55	1.9	55
MW-2	MW-2	5	12/3/1996	Dec-96	16.20	0.00	93.95	77.75	µg/L	1,100	--	--	230	2.4	7.8	7	40	--	--	--	--	< 0.5	20	86	7	< 0.5
MW-2	MW-2	5	2/27/1997	Feb-97	14.46	0.00	93.95	79.49	µg/L	1,000	--	--	210	2.2	6	3	12	--	--	--	--	1	25	43	< 0.5	< 0.5
MW-2	MW-2	5	6/10/1997	Jun-97	14.00	0.00	93.95	79.95	µg/L	1.8	--	--	510	3.0	6	< 10	< 30	--	--	--	--	1	19	47	4.9	< 0.5
MW-2	MW-2	5	8/27/1997	Aug-97	16.55	0.00	93.95	77.40	µg/L	450	--	--	51	< 0.5	1.4	< 2	11	--	--	--	--	0.5	16	29	4.2	< 0.5
MW-2	MW-2	5	11/26/1997	Nov-97	16.86	0.00	93.95	77.09	µg/L	1,200	--	--	380	5.0	9	12	< 30	--	--	--	--	1	13	29	3.1	< 0.5
MW-2	MW-2	5	2/11/1998	Feb-98	15.85	0.00	93.95	78.10	µg/L	1,100	--	--	310	4.0	9.8	9	8	--	--	--	--	< 0.5	16	<0.5	2.6	0.6
MW-2	MW-2	5	5/19/1998	May-98	15.32	0.00	93.95	78.63	µg/L	1,200	--	--	328	2.1	9.9	8	20	--	--	--	--	1	14	47	1.6	< 0.5
MW-2	MW-2	5	8/10/1998	Aug-98	15.07	0.00	93.95	78.13	µg/L	300	--	--	37	1.0	1.2	0.9	46	--	--	--	--	< 0.5	11	36	2.4	< 0.5
MW-2	MW-2	5	11/9/1998	Nov-98	16.53	0.00	93.95	77.42	µg/L	440	--	--	37	< 0.5	1.7	< 0.5	< 2.5	--	--	--	--	< 0.5	12	35	2.3	< 0.5
MW-2	MW-2	5	2/8/1999	Feb-99	--	--	93.95	--	µg/L	480	--	--	240	2.3	8.9	5	11	--	--	--	--	< 0.5	11	36	1.4	< 0.5
MW-2	MW-2	5	2/11/2002	Feb-99	16.38	0.00	93.95	77.57	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	MW-2	5	5/10/1999	May-99	15.19	0.00	93.95	78.76	µg/L	260	--	--	260	2.2	7.9	4.2	24/<2.0	--	--	--	--	< 0.5	7	24	3.4	< 0.5
MW-2	MW-2	5	8/9/1999	Aug-99	16.09	0.00	93.95	77.86	µg/L	250	--	--	43	0.79	0.54	< 0.5	14/<2.0	--	--	--	--	< 0.5	11	33	2.6	< 0.5
MW-2	MW-2	5	11/5/1999	Nov-99	16.20	0.00	93.95	77.75	µg/L	320	--	--	63	0.68	0.65	1.1	11/<2.0	--	--	--	--	< 0.5	13	41	1.3	< 0.5
MW-2	MW-2	5	2/1/2000	Feb-00	16.80	0.00	93.95	77.95	µg/L	1200	--	--	610/ 590*	4.4/ 6.3*	63/ 65*	5.9/ 7.1*	< 0.5	--	--	--	--	< 0.5	15	73	2	< 0.5
MW-2	MW-2	5	5/2/2000	May-00	14.90	0.00	93.95	79.05	µg/L	930	--	--	540/600*	3.7/<5.0*	19/14*	14/11*	< 0.5	--	--	--	--	< 0.5	8.4	32	4.5	< 0.5
MW-2	MW-2	5	8/1/2000	Aug-00	14.25	0.00	93.95	78.70	µg/L	410	--	--	110	1.2	4.8	1.6	< 0.5	--	--	--	--	< 0.5	9.4	23	2.9	< 0.5
MW-2	MW-2	5	11/6/2000	Nov-00	15.45	0.00	93.95	78.50	µg/L	450	--	--	150/130*	09/.89*	4.1/5.7*	1.1/1.8*	20	--	--	--	--	< 0.5	10	28	1.4	< 0.5
MW-2	MW-2	5	2/16/2001	Feb-01	15.50	0.00	93.95	78.45	µg/L	640	--	--	360/390*	4.4/4.1*	19/17*	8.6/8.1*	< 0.5	--	--	--	--	< 0.5	11	19	2.5	< 0.5
MW-2	MW-2	5	4/27/2001	Apr-01	14.83	0.00	93.95	79.12	µg/L	770	--	--	450/510	3.3/3.5	8.4/10	6.3/7.2	0.5	--	--	--	--	0.5	4.4	11	4.0	< 0.5
MW-2	MW-2	5	7/24/2001	Jul-01	15.18	0.00	93.95	78.77	µg/L	480	--	--	130/120	1.7/1.6	3.8/5.1	4.5/5.8	< 0.5	--	--	--	--	< 0.5	7.2	15	3.0	< 0.5
MW-2	MW-2	2	3/27/2002	Mar-02	14.41	0.00	93.95	79.54	µg/L	450	< 50	< 500	610	< 0.50	19	14	< 5.0	--	--	--	--	< 0.50	5.1	8.9	< 0.50	< 0.50
MW-2	MW-2	2	6/5/2002	Jun-02	14.41	0.00	20.50	6.09	µg/L	406	500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	16.7	< 2.5	4.6	8.5	< 5.0	< 5.0
MW-2	MW-2	2	9/6/2002	Sep-02	14.91	0.00	20.50	5.59	µg/L	71	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	15.7	< 2.5	2.7	9.7	< 5.0	< 5.0
MW-2	MW-2	2	12/12/2002	Dec-03	15.41	0.00	20.50	5.09	µg/L	461	< 500	< 2000	86.5	< 1.0	2.9	8.6	< 2.0	< 2.0	< 2.0	< 2.0	10	< 2.5	6.5	8.4	< 5.0	< 5.0
MW-2	MW-2	2,3	12/12/2002	Dec-03	15.41	0.00	20.50	5.09	µg/L	493	< 500	< 2000	87.1	< 1.0	3.7	9.5	< 2.0	< 2.0	< 2.0	< 2.0	10	< 2.5	7.3	9.3	< 5.0	< 5.0
MW-3	MW-3	5	10/1/1995	Oct-95	--	--	96.15	--	µg/L	< 50	--	--	ND		ND	ND	--	--	--	--	--	ND	ND	ND	--	--
MW-3	MW-3	5	1/1/1996	Jan-96	--	--	96.15	--	µg/L	ND	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	ND	ND	--	--
MW-3	MW-3	5	6/12/1996	Jun-96	17.56	0.00	96.15	78.59	µg/L	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	--	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--
MW-3	MW-3	5	9/5/1996	Sep-96	18.32	0.00	96.15	77.83	µg/L	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--
MW-3	MW-3	5	12/3/1996	Dec-96	18.57	0.00	96.15	77.58	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	2.3	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	2/27/1997	Feb-97	17.43	0.00	96.15	78.72	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	6.3	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	6/10/1997	Jun-97	18.12	0.00	96.15	78.03	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	5.9	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	8/27/1997	Aug-97	18.47	0.00	96.15	77.68	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	5.8	< 0.5	< 0.5	< 0.5	< 0.5

Appendix A
Historical Groundwater Monitoring Results
Sears Auto Center # 1039
Oakland California

					GROUNDWATER LEVELS				LABORATORY ANALYTICAL RESULTS																
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)	Anal. Units	TPHg	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	ETBE	DIPE	TAME	TBA	PCE	TCE	1,2-DCA	cis-1,2 DCE	1,1-DCE
MW-3	MW-3	5	11/26/1997	Nov-97	18.70	0.00	96.15	77.45	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	7.9	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	2/11/1998	Feb-98	17.76	0.00	96.15	78.39	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	7.9	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	5/19/1998	May-98	16.99	0.00	96.15	79.16	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	5.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	8/10/1998	Aug-98	17.51	0.00	96.15	78.64	µg/L	< 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	5	11/9/1998	Nov-98	18.07	0.00	96.15	78.08	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	5.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	2/8/1999	Feb-99	--	--	96.15	--	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	6.4	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	2/11/1999	Feb-99	18.07	0.00	96.15	78.08	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	MW-3	5	5/10/1999	May-99	17.04	0.00	96.15	79.11	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	5.1	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	8/9/1999	Aug-99	17.77	0.00	96.15	78.38	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	4.8	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	11/5/1999	Nov-99	18.00	0.00	96.15	78.15	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	7.2	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	2/1/2000	Feb-00	17.95	0.00	96.15	78.20	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	6.9	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	5/2/2000	May-00	16.83	0.00	96.15	79.32	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	6.4	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	8/1/2000	Aug-00	17.13	0.00	96.15	79.02	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	5.6	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	11/6/2000	Nov-00	17.54	0.00	96.15	78.61	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	7.9	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	2/16/2001	Feb-01	17.42	0.00	96.15	78.73	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	8.9	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	4/27/2001	Apr-01	16.80	0.00	96.15	79.35	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	8.1	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	5	7/24/2001	Jul-01	17.08	0.00	96.15	79.07	µg/L	< 50	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	11.0	< 0.5	< 0.5	< 0.5	< 0.5
MW-3	MW-3	4	3/27/2002	Mar-02	16.50	0.00	96.15	79.65	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	MW-3	2	6/5/2002	Jun-02	16.53	0.00	22.29	5.76	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2	< 2.0	< 2.0	< 2.0	< 10.0	20.9	4.5	< 5.0	< 5.0	< 5.0
MW-3	MW-3	2	9/6/2002	Sep-02	16.95	0.00	22.29	5.34	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2	< 2.0	< 2.0	< 2.0	< 10.0	28.0	9.3	< 5.0	< 5.0	< 5.0
MW-3	MW-3	2	12/12/2002	Dec-03	17.36	0.00	22.29	4.93	µg/L	50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2	< 2.0	< 2.0	< 2.0	< 10.0	28.7	12.7	< 5.0	< 5.0	< 5.0
MW-4	MW-4	5	10/1/1995	Oct-95	--	0.00	92.01	--	µg/L	<50	--	--	4.1	ND	ND	ND	--	--	--	--	--	ND	ND	ND	--	--
MW-4	MW-4	5	1/1/1996	Jan-96	--	0.00	92.01	--	µg/L	<50	--	--	5.8	ND	ND	ND	--	--	--	--	--	ND	ND	ND	--	--
MW-4	MW-4	5	6/12/1996	Jun-96	14.21	0.00	92.01	77.80	µg/L	320	--	< 0.5	11	< 0.5	< 0.5	< 2	--	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--
MW-4	MW-4	5	9/5/1996	Sep-96	14.83	0.00	92.01	77.18	µg/L	70	--	0.5	5.6	< 0.5	< 0.5	< 2	--	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	12/3/1996	Dec-96	13.99	0.00	92.01	78.02	µg/L	270	--	< 0.5	11	< 0.5	< 0.5	< 2	15	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	2/27/1997	Feb-97	12.44	0.00	92.01	79.57	µg/L	190	--	< 500	3.1	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	6/10/1997	Jun-97	14.20	0.00	92.01	77.81	µg/L	200	--	--	11	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	8/27/1997	Aug-97	14.62	0.00	92.01	77.39	µg/L	170	--	< 0.5	9.6	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	11/26/1997	Nov-97	15.60	0.00	92.01	77.01	µg/L	100	--	< 500	5.7	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	2/11/1998	Feb-98	14.10	0.00	92.01	77.91	µg/L	110	--	< 500	8.4	< 0.5	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	5/19/1998	May-98	13.57	0.00	92.01	78.44	µg/L	110	--	< 500	4.6	< 0.5	< 0.5	< 2	7	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	8/10/1998	Aug-98	14.10	0.00	92.01	77.91	µg/L	110	--	9,600	4.1	< 0.5	< 0.5	< 0.5	11	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	11/9/1998	Nov-98	14.75	0.00	92.01	77.26	µg/L	130	--	< 500	7.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	2/8/1999	Feb-99	--	--	92.01	--	µg/L	60	--	< 500	6.8	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	2/11/1999	Feb-99	14.57	0.00	92.01	77.44	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	MW-4	5	5/10/1999	May-99	13.46	0.00	92.01	78.55	µg/L	61	--	< 5000	1.3	< 0.5	< 0.5	< 0.5	< 2.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	8/9/1999	Aug-99	14.15	0.00	92.01	77.86	µg/L	94	--	< 1000	7.9	< 0.5	< 0.5	< 0.5	3.9/<2.0*	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	11/5/1999	Nov-99	14.62	0.00	92.01	77.39	µg/L	< 50	--	--	9.0	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	2/1/2000	Feb-00	14.50	0.00	92.01	77.51	µg/L	150	--	800	11	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	5/2/2000	May-00	13.40	0.00	92.01	78.61	µg/L	55	--	< 1000	8.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	8/1/2000	Aug-00	13.70	0.00	92.01	78.31	µg/L	<50	--	< 1000	0.9	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	11/6/2000	Nov-00	14.00	0.00	92.01	78.01	µg/L	88	--	< 1000	22	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4	MW-4	5	2/16/2001	Feb-01	13.65	0.00	92.01	78.36	µg/L	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	5	4/27/2001	Apr-01	13.40	0.00	92.01	78.61	µg/L	< 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	5	7/24/2001	Jul-01	13.69	0.00	92.01	78.32	µg/L	< 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	3	3/27/2002	Mar-02	13.22	0.00	92.01	78.79	µg/L	< 50	< 50	< 500	1.4	< 0.50	< 0.50	< 1.0	5.0	--	--	--	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
MW-4	MW-4	2	6/5/2002	Jun-02	13.60	0.00	18.61	5.01	µg/L	< 50	< 500	< 2000	2.1	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 2.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-4	MW-4	2	9/6/2002	Sep-02	13.46	0.00	18.61	5.15	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 2.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-4	MW-4	2	12/12/2002	Dec-03	13.96	0.00	18.61	4.65	µg/L	115	< 500	< 2000	4.3	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 2.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-5	MW-5	5	10/1/1995	Oct-95	--	0.00	92.09	--	µg/L	260	--	--	86	ND	ND	ND	--	--	--	--	--	ND	ND	ND	--	--
MW-5	MW-5	5	1/1/1996	Jan-96	--	0.00	92.09	--	µg/L	180	--	--	160	3.6	ND	ND	--	--	--	--	--	ND	ND	ND	--	--
MW-5	MW-5	5	6/12/1996	Jun-96	14.13	0.00	92.09	77.96	µg/L	260	--	--	54	1.1	< 0.5	< 2	--	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--
MW-5	MW-5	5	9/5/1996	Sep-96	14.77	0.00	92.09	77.32	µg/L	160	--	--	22	1.0	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	--	--
MW-5	MW-5	5	12/3/1996	Dec-96	13.99	0.00	92.09	78.10	µg/L	170	--	--	18	0.6	< 0.5	< 2	6	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	2/27/1997	Feb-97	12.08	0.00	92.09	80.01	µg/L	230	--	--	74	2.0	< 0.5	< 2	< 5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	6/10/1997	Jun-97	16.00	0.00	92.09	76.09	µg/L	1,200	--	--	490	19.0	< 3.0	< 10	< 30	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	8/27/1997	Aug-97	14.55	0.00	92.09	77.54	µg/L	340	--	--	100	4.6	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	11/26/1997	Nov-97	14.95	0.00	92.09	77.14	µg/L	400	--	--	78	4.5	0.6	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	2/11/1998	Feb-98	13.97	0.00	92.09	78.12	µg/L	320	--	--	62	2.9	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	5/19/1998	May-98	13.52	0.00	92.09	78.57	µg/L	330	--	--	97	2.6	< 0.5	< 2	< 5.0	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	8/10/1998	Aug-98	13.97	0.00	92.09	78.12	µg/L	190	--	--	48	1.9	< 0.5	< 0.5	11	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	11/9/1998	Nov-98	14.67	0.00	92.09	77.42	µg/L	81	--	--	3.8	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	2/8/1999	Feb-99	--	--	92.09	--	µg/L	82	--	--	3	< 0.5	< 0.5	< 0.5	3.8	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	2/11/1999	Feb-99	14.50	0.00	92.09	77.59	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	MW-5	5	5/10/1999	May-99	13.23	0.00	92.09	78.86	µg/L	< 50	--	--	8.8	< 0.5	< 0.5	< 0.5	2.6/<2.0*	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	8/9/1999	Aug-99	13.90	0.00	92.09	78.19	µg/L	150	--	--	25	< 0.5	< 0.5	< 0.5	5.6/<2.0*	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Appendix A
Historical Groundwater Monitoring Results
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(Page 3 of 4)

					GROUNDWATER LEVELS				LABORATORY ANALYTICAL RESULTS																
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)	Anal. Units	TPHg	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	ETBE	DIPE	TAME	TBA	PCE	TCE	1,2-DCA	cis-1,2 DCE	1,1-DCE
MW-5	MW-5	5	11/5/1999	Nov-99	14.40	0.00	92.09	77.69	µg/l	160	--	--	20	< 0.5	< 0.5	0.76	4.3/<2.0*	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	2/1/2000	Feb-00	14.15	0.00	92.09	77.94	µg/L	180	--	--	42	1.2	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	5/2/2000	May-00	13.10	0.00	92.09	78.99	µg/L	120	--	--	12	0.7	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	8/1/2000	Aug-00	13.52	0.00	92.09	78.57	µg/L	69	--	--	11	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	11/6/2000	Nov-00	13.93	0.00	92.09	78.16	µg/L	72	--	--	7.0	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	2/16/2001	Feb-01	13.75	0.00	92.09	78.34	µg/L	< 50	--	--	1.6	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	4/27/2001	Apr-01	12.95	0.00	92.09	79.14	µg/L	< 50	--	--	3.1	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	7/24/2001	Jul-01	13.46	0.00	92.09	78.63	µg/L	< 50	--	--	3.8	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	2	3/27/2002	Mar-02	12.43	0.00	92.09	79.66	µg/L	81	70	< 500	< 0.50	< 0.50	< 0.5	< 1.0	< 5.0	--	--	--	--	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
MW-5	MW-5	2	6/5/2002	Jun-02	12.68	0.00	18.76	6.08	µg/L	50	< 500	< 2000	2.0	< 1.0	< 1.0	< 2.0	< 2.0	--	--	--	--	< 2.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-5	MW-5	2,3	6/5/2002	Jun-02	12.68	0.00	18.76	6.08	µg/L	59	< 500	< 2000	2.5	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 2.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-5	MW-5	2	9/6/2002	Sep-02	13.18	0.00	18.76	5.58	µg/L	< 50	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 2.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-5	MW-5	2	12/12/2002	Dec-02	13.76	0.00	18.76	5.00	µg/L	91	< 500	< 2000	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10.0	< 2.5	< 2.5	< 5.0	< 5.0	< 5.0
MW-6	MW-6	5	10/1/1995	Oct-95	--	--	0.00	92.16	--	µg/L	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	6.2	31	33	--	--
MW-6	MW-6	5	1/1/1996	Jan-96	--	--	0.00	92.16	--	µg/L	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	7.2	12	8.3	--	--
MW-6	MW-6	5	6/12/1996	Jun-96	14.99	0.00	92.16	77.17	µg/L	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	--	--	--	--	--	3.6	5	7.9	--	--
MW-6	MW-6	5	9/5/1996	Sep-96	15.50	0.00	92.16	76.66	µg/L	< 50	--	< 0.5	0.8	< 0.5	< 0.5	< 2	< <5	--	--	--	--	5.4	5.2	7.5	--	--
MW-6	MW-6	5	12/3/1996	Dec-96	15.07	0.00	92.16	77.09	µg/L	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5	--	--	--	--	0.9	0.6	0.5	< 0.5	< 0.5
MW-6	MW-6	5	2/27/1997	Feb-97	14.14	0.00	92.16	78.02	µg/L	< 50	--	< 500	< 0.5	< 0.5	< 0.5	< 2	< 5	--	--	--	--	1.3	< 0.5	< 0.5	< 0.5	< 0.5
MW-6	MW-6	5	6/10/1997	Jun-97	15.30	0.00	92.16	76.86	µg/L	< 50	--	--	0.9	< 0.5	< 0.5	< 2	< 5	--	--	--	--	1	< 0.5	< 0.5	< 0.5	< 0.5
MW-6	MW-6	5	8/27/1997	Aug-97	15.42	0.00	92.16	76.74	µg/L	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5	--	--	--	--	0.9	< 0.5	< 0.5	< 0.5	< 0.5
MW-6	MW-6	5	11/26/1997	Nov-97	15.70	0.00	92.16	76.46	µg/L	< 50	--	< 500	15	0.9	9.1	< 2	7.6	--	--	--	--	1.2	0.6	0.8	< 0.5	< 0.5
MW-6	MW-6	5	2/11/1998	Feb-98	14.87	0.00	92.16	77.29	µg/L	< 50	--	< 500	< 0.5	< 0.5	< 0.5	< 2	< 5	--	--	--	--	0.7	<0.5	< 0.5	< 0.5	< 0.5
MW-6	MW-6	5	5/19/1998	May-98	14.32	0.00	92.16	77.84	µg/L	< 50	--	< 500	0.6	< 0.5	< 0.5	< 2	< 5	--	--	--	--	0.6	<0.5	< 0.5	< 0.5	< 0.5
MW-6	MW-6	5	8/10/1998	Aug-98	14.90	0.00	92.16	77.26	µg/L	< 50	--	9,000	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	0.5	0.59	1.3	< 0.5	< 0.5
MW-6	MW-6	5	11/9/1998	Nov-98	15.39	0.00	92.16	76.77	µg/L	< 50	--	< 500	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	1.2	0.92	1.7	< 0.5	< 0.5
MW-6	MW-6	5	2/8/1999	Feb-99	--	--	92.16	--	µg/L	< 50	--	< 500	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	0.86	< 0.5	1.2	< 0.5	< 0.5
MW-6	MW-6	5	2/11/1999	Feb-99	15.21	0.00	92.16	76.95	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	MW-6	5	5/10/1999	May-99	14.12	0.00	92.16	78.04	µg/L	< 50	--	< 5000	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-6	MW-6	5	8/9/1999	Aug-99	15.80	0.00	92.16	77.36	µg/L	< 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	5	11/5/1999	Nov-99	15.55	0.00	92.16	76.61	µg/L	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	0.89	0.89	1.3	< 0.5	< 0.5
MW-6	MW-6	5	2/1/2000	Feb-00	15.40	0.00	92.16	76.76	µg/L	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 2.5	--	--	--	--	1.2	0.9	1.2	< 0.5	< 0.5
MW-6	MW-6	5	5/2/2000	May-00	14.55	0.00	92.16	77.61	µg/L	< 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	5	8/1/2000	Aug-00	14.85	0.00	92.16	77.31	µg/L	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	0.8	0.9	1.3	< 0.5	< 0.5
MW-6	MW-6	5	11/6/2000	Nov-00	15.10	0.00	92.16	77.06	µg/L	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	0.9	0.9	1.3	< 0.5	< 0.5
MW-6	MW-6	5	2/16/2001	Feb-01	14.93	0.00	92.16	77.23	µg/L	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	0.9	1.1	1.2	< 0.5	< 0.5
MW-6	MW-6	5	4/27/2001	Apr-01	14.40	0.00	92.16	77.76	µg/L	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	0.7	0.7	1.9	< 0.5	< 0.5
MW-6	MW-6	5	7/24/2001	Jul-01	14.68	0.00	92.16	77.48	µg/L	< 50	--	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--	--	--	--	0.6	1	1.8	< 0.5	< 0.5
MW-6	MW-6	4	3/27/2002	Mar-02	14.09	0.00	92.16	78.07	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	MW-6	4	6/5/2002	Jun-02	14.26	0.00	18.91	4.65	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	MW-6	4	9/6/2002	Sep-02	14.69	0.00	18.91	4.22	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	MW-6	4	12/12/2002	Dec-02	15.13	0.00	18.91	3.78	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	MW-7	5	10/1/1995	Oct-95	--	0.00	93.80	--	µg/L	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	5.3	3.5	8.3	--	--
MW-7	MW-7	5	1/1/1996	Jan-96	--	0.00	93.80	--	µg/L	< 50	--	--	ND	ND	ND	ND	--	--	--	--	--	9.3	4.8	5.7	--	--
MW-7	MW-7	5	6/12/1996	Jun-96	16.56	0.00	93.80	77.24	µg/L	< 50	--	--	0.6	< 0.5	< 0.5	< 2	--	--	--	--	--	6.1	3.4	2.9	--	--
MW-7	MW-7	5	9/5/1996	Sep-96	17.10	0.00	93.80	76.70	µg/L	< 50	--	--	1.2	< 0.5	< 0.5	< 2	< 5	--	--	--	--	8.3	4.2	5.9	--	--
MW-7	MW-7	5	12/3/1996	Dec-96	17.12	0.00	93.80	76.68	µg/L	120	--	< 0.5	850	< 5	< 5	30	< 5	--	--	--	--	4	4	75	< 3	< 3
MW-7	MW-7	5	2/27/1997	Feb-97	16.20	0.00	93.80	77.60	µg/L	2,500	--	--	1500	3.0	23	< 10	< 30	--	--	--	--	2	4	65	< 0.5	< 0.5
MW-7	MW-7	5	6/10/1997	Jun-97	17.00	0.00	93.80	76.80	µg/L	3,200	--	--	1700	< 5	59	< 20	< 50	--	--	--	--	2	4.2	85	< 0.5	< 0.5
MW-7	MW-7	5	8/27/1997	Aug-97	17.18	0.00	93.80	76.62	µg/L	3,900	--	--	1700	8.0	200	40	90	--	--	--	--	< 3	5	93	< 3	< 3
MW-7	MW-7	5	11/26/1997	Nov-97	17.40	0.00	93.80	76.40	µg/L	5,600	--	--	3,100	15.0	190	30	90	--	--	--	--	3	5.9	120	1	< 0.5
MW-7	MW-7	5	2/11/1998	Feb-98	16.65	0.00	93.80	77.15	µg/L	8,500	--	--	3,800	25.0	250	80	90	--	--	--	--	4	8.9	93	1.2	< 0.5
MW-7	MW-7	5	5/19/1998	May-98	15.96	0.00	93.80	77.84	µg/L	5,000	--	--	2,100	440.0	150	220	300	--	--	--	--	2	3.8	74	0.6	< 0.5
MW-7	MW-7	5	8/10/1998	Aug-98	16.48	0.00	93.80	77.32	µg/L	1,600	--	--	690	< 10	13	< 10	< 50	--	--	--	--	< 3	3.3	100	< 2.5	< 2.5
MW-7	MW-7	5	11/9/1998	Nov-98	16.98	0.00	93.80	76.82	µg/L	930	--	--	295	5.5	4.3	1.5	8.7	--	--	--	--	4.2	6.5	110	< 2.5	< 2.5
MW-7	MW-7	5	2/8/1999	Feb-99	--	--	93.80	--	µg/L	1,500	--	--	670	< 10	14	<10	< 50	--	--	--	--	6	3.4	74	< 1.2	< 1.2
MW-7	MW-7	5	2/11/1999	Feb-99	16.94	0.00	93.80	76.86	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	MW-7	5	5/10/1999	May-99	15.87	0.00	93.80	77.93	µg/L	2,800	--	--	1,800	16.0	81	130	63/<2.0*	--	--	--	--	1	2.6	65	0.63	< 0.5
MW-7	MW-7	5	8/9/1999	Aug-99	16.60	0.00	93.80	77.20	µg/L	1,500	--	--	570	5.1	28	30	300/6.5*	--	--	--	--	< 1	1.2	95	0.57	< 0.5
MW-7	MW-7	5	11/5/1999	Nov-99	17.01	0.00	93.80	76.79	µg/L	2,100	--	--	1,200	<5	61	25	150/11*	--	--	--	--	4	7.8	95	1.6	< 0.5
MW-7	MW-7	5	2/1/2000	Feb-00	17.00	0.00	93.80	76.80	µg/L	4,600	--	--	2,600	16.0	140	210	6.6	--	--	--	--	3	6	110	1.7	< 0.5
MW-7	MW-7	5	5/2/2000	May-00	16.00	0.00	93.80	77.80	µg/L	4,200	--	--	2,700	25	80	270	< 5.0	--	--	--	--	< 5.0	< 5.0	84	< 5.0	< 5.0
MW-7	MW-7	5	8/1/2000	Aug-00	16.40	0.00	93.80	77.40	µg/L	5,600	--	--	5,500	27	300	390	< 10	--	--	--	--	< 10	< 10	85	< 10	< 10
MW-7	MW-7	5	11/6/2000	Nov-00	16.67	0.00	93.80	77.13	µg/L	6,000	--	--	3,400	29	230	330	< 10	--	--	--	--	< 10	< 10	66	< 10	< 10
MW-7	MW-7	5	2/16/2001	Feb-01	16.60	0.00	93.80	77.20	µg/L	4,400	--	--	3,400	27	200	290	3.1	--	--	--	--	< 2	< 2	60	< 2	< 2
MW-7	MW-7	5	4/27/2001	Apr-01	16.00	0.00	93.80	77.80	µg/L	6,100	--	--	6,000	44	390	620	2.7	--	--	--	--	< 2.5	< 2.5	37	< 2.5	< 2.5
MW-7	MW-7	5	7/24/2001	Jul-01	16.22	0.00	93.80	77.58	µg/L	6,000	--	--	4,500	36	390	840	< 2.0	--	--	--	--	< 2.0	< 2.0	39	< 2.0	< 2.0

APPENDIX B

LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS

Southland Technical Services, Inc.
Environmental Laboratories

12-20-2002

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

Project: 29863493.02034/Sears Oakland 1039
Project Site: 1901 Telegraph Ave., Oakland, CA
Sample Date: 12-12-2002
Lab Job No.: UR212101

Dear Mr. Rowlands:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 12-13-2002 and analyzed by the following EPA methods:

EPA 8015M (Gasoline)
EPA 8015M (Diesel & Oil)
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.

7801 Telegraph Road Suite L, Montebello, CA 90640 Phone: (323) 888-0728 Fax: (323) 888-1509

Southland Technical Services, Inc.
Environmental Laboratories

12-20-2002

Client:	URS Corporation	Lab Job No.:	UR212101
Project:	29863493.02034/Sears Oakland 1039		
Project Site:	1901 Telegraph Ave., Oakland, CA	Date Sampled	12-12-2002
Matrix:	Water	Date Received:	12-13-2002
Batch No.:	AI17-GW1/for Gasoline	Date Analyzed:	12-17-2002
Batch No.:	EL14-DW1/for Diesel & Oil	Date Analyzed:	12-14-2002

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

Date of Analysis for TPH (Gasoline)			12-17-02	12-17-02	12-17-02	12-17-02	12-17-02
Preparation Method for TPH (Gasoline)			5030	5030	5030	5030	5030
Date of Analysis for TPH (D & O)			12-14-02	12-14-02	12-14-02	12-14-02	12-14-02
Date of Extraction for TPH (D & O)			12-14-02	12-14-02	12-14-02	12-14-02	12-14-02
Preparation Method for TPH (D & O)			3510C	3510C	3510C	3510C	3510C
LAB SAMPLE I.D.				UR212101-1	UR212101-2	UR212101-3	UR212101-4
CLIENT SAMPLE I.D.				MW-1	MW-2	MW-3	MW-4
Analyte		**MDL**	**MB**				
TPH-Gasoline (C4 - C12)		50	ND	ND	461	50	115
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	%RC
BFB (for TPH-Gasoline)	20 ppb	70-130	102	89	94	70	107
Diocthyl Phthalate (for TPH-D & O)	5 ppm	70-130	122	122	124	122	122

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.

7801 Telegraph Road Suite L, Montebello, CA 90640 Phone: (323) 888-0728 Fax: (323) 888-1509

STS
Southland Technical Services, Inc.
Environmental Laboratories

12-20-2002

Client:	URS Corporation	Lab Job No.:	UR212101
Project:	29863493.02034/Sears Oakland 1039		
Project Site:	1901 Telegraph Ave., Oakland, CA	Date Sampled	12-12-2002
Matrix:	Water	Date Received:	12-13-2002
Batch No.:	AI13-GW1/for Gasoline	Date Analyzed:	12-17-2002
Batch No.:	EI14-DW1/for Diesel & Oil	Date Analyzed:	12-14-2002

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

Date of Analysis for TPH (Gasoline)			12-17-02	12-17-02	12-17-02	12-17-02	12-17-02
Preparation Method for TPH (Gasoline)			5030	5030	5030	5030	5030
Date of Analysis for TPH (D & O)			12-14-02	12-14-02	12-14-02	12-14-02	12-14-02
Date of Extraction for TPH (D & O)			12-14-02	12-14-02	12-14-02	12-14-02	12-14-02
Preparation Method for TPH (D & O)			3510C	3510C	3510C	3510C	3510C
LAB SAMPLE I.D.			UR212101-5	UR212101-6	UR212101-7	UR212101-8	UR212101-9
CLIENT SAMPLE I.D.			MW-5	MW-7	MW-8	MW-9	BD-1
Analyte		**MDL**					
TPH-Gasoline (C4 - C12)		50	91	27,200	69	68	493
TPH-Diesel (C13 - C23)		500	ND	ND	ND	ND	ND
TPH-Oil (C24 - C40)		2000	ND	ND	ND	ND	ND
Surrogate	Spk Conc.	ACP%	%RC	%RC	%RC	%RC	%RC
BFB (for TPH-Gasoline)	20 ppb	70-130	100	115	88	109	98
Diocthyl Phthalate (for TPH-D & O)	5 ppm	70-130	122	122	124	126	126

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.

7801 Telegraph Road Suite L, Montebello, CA 90640 Phone: (323) 888-0728 Fax: (323) 888-1509

Southland Technical Services, Inc.
Environmental Laboratories

12-20-2002

Client:	URS Corporation	Lab Job No.:	UR212101
Project:	29863493.02034/Sears Oakland 1039		
Project Site:	1901 Telegraph Ave., Oakland, CA	Date Sampled	12-12-2002
Matrix:	Water	Date Received:	12-13-2002
Batch No.:	AI13-GW1/for Gasoline	Date Analyzed:	12-17-2002
Batch No.:	EI14-DW1/for Diesel & Oil	Date Analyzed:	12-14-2002

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

Date of Analysis for TPH (Gasoline)			12-17-02	12-17-02			
Preparation Method for TPH (Gasoline)			5030	5030			
Date of Analysis for TPH (D & O)			12-14-02	12-14-02			
Date of Extraction for TPH (D & O)			12-14-02	12-14-02			
Preparation Method for TPH (D & O)			3510C	3510C			
LAB SAMPLE I.D.			UR212101-9	UR212101			
CLIENT SAMPLE I.D.			EB-1	TB-1			
Analyte		**MDL**					
TPH-Gasoline (C4 - C12)		50	ND	ND			
TPH-Diesel (C13 - C23)		500	ND	ND			
TPH-Oil (C24 - C40)		2000	ND	ND			
Surrogate	Spk Conc.	ACP%	%RC	%RC			
BFB (for TPH-Gasoline)	20 ppb	70-130	102	111			
Diocthyl Phthalate (for TPH-D & O)	5 ppm	70-130	124	130			

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.

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Southland Technical Services, Inc.
Environmental Laboratories

Client: URS Corporation
Project: 29863493.02034/Sears Oakland 1039

Lab Job No.: UR212101
Matrix: Water

Date Reported: 12-20-2002
Date Sampled: 12-12-2002

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

Date ANALYZED		12-17-02	12-17-02	12-17-02	12-17-02	12-17-02	12-17-02	
PREPARATION METHOD		5030	5030	5030	5030	5030	5030	
DILUTION FACTOR		1	1	1	1	1	1	
LAB SAMPLE I.D.			UR212101-1	UR212101-2	UR212101-3	UR212101-4	UR212101-5	
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	5	ND	ND	8.4	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	86.5	ND	4.3	ND	
Trichloroethene	2.5	ND	2.7	6.5	12.7	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	35.1	ND	28.7	ND	ND	
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND	

Southland Technical Services, Inc.
Environmental Laboratories

Client: URS Corporation
Project: 29863493.02034/Sears Oakland 1039

Lab Job No.: UR212101
Matrix: Water

Date Reported: 12-20-2002
Date Sampled: 12-12-2002

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-Tetrachloroethan	5	ND	ND	ND	ND	ND	ND	
Ethylbenzene	1	ND	ND	2.9	ND	ND	ND	
Total Xylenes	2	ND	ND	8.6	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	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	
Vinyl Acetate	25	ND	ND	ND	ND	ND	ND	
MTBE	2	ND	ND	ND	ND	ND	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	101	90	83	88	83	79	79-126
Toluene-d8	25	93	93	95	96.	94	96	79-121
Bromofluoro-benzene	25	94	91	98	90	93	94	71-131

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

Southland Technical Services, Inc.
Environmental Laboratories

Client: URS Corporation
Project: 29863493.02034/Sears Oakland 1039

Lab Job No.: UR212101
Matrix: Water

Date Reported: 12-20-2002
Date Sampled: 12-12-2002

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

Date ANALYZED		12-17-02	12-17-02	12-17-02	12-17-02	12-17-02		
PREPARATION METHOD		5030	5030	5030	5030	5030		
DILUTION FACTOR		1	2	1	1	1		
LAB SAMPLE I.D.			UR212101-6	UR212101-7	UR212101-8	UR212101-9		
CLIENT SAMPLE I.D.			MW-7	MW-8	MW-9	BD-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	5	ND	18.3	ND	12.0	9.3		
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	15,100	ND	ND	87.2		
Trichloroethene	2.5	ND	ND	ND	10.3	7.3		
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	14.2	ND	ND	ND		
Bromobenzene	5	ND	ND	ND	ND	ND		
Toluene	1	ND	21.3	ND	ND	ND		
Tetrachloroethene	2.5	ND	ND	ND	26.3	ND		
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND		

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Southland Technical Services, Inc.
Environmental Laboratories

Client: URS Corporation
Project: 29863493.02034/Sears Oakland 1039

Lab Job No.: UR212101
Matrix: Water

Date Reported: 12-20-2002
Date Sampled: 12-12-2002

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

COMPOUND	MDL	MB	MW-7	MW-8	MW-9	BD-1		
Chlorobenzene	5	ND	ND	ND	ND	ND		
1,1,1,2-Tetrachloroethan	5	ND	ND	ND	ND	ND		
Ethylbenzene	1	ND	248	ND	ND	3.7		
Total Xylenes	2	ND	640	ND	ND	9.5		
Styrene	5	ND	ND	ND	ND	ND		
1,1,2,2-Tetrachloroethan	5	ND	ND	ND	ND	ND		
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND		
n-Propylbenzene	5	ND	13.2	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	46	ND	ND	ND		
tert-Butylbenzene	5	ND	ND	ND	6.5	ND		
1,2,4-Trimethylbenzene	5	ND	158	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	31.3	ND	33	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	56.2	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		
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	101	87	96	90	81		79-126
Toluene-d8	25	93	84	90	98	95		79-121
Bromofluoro-benzene	25	94	104	90	89	93		71-131

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

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Southland Technical Services, Inc.
Environmental Laboratories

Client: URS Corporation
Project: 29863493.02034/Sears Oakland 1039

Lab Job No.: UR212101
Matrix: Water

Date Reported: 12-20-2002
Date Sampled: 12-12-2002

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

Date ANALYZED		12-17-02	12-17-02	12-17-02				
PREPARATION METHOD		5030	5030	5030				
DILUTION FACTOR		1	1	1				
LAB SAMPLE I.D.			UR212101-10	UR212101-11				
CLIENT SAMPLE I.D.			EB-1	TB-1				
COMPOUND	MDL	MB						
Dichlorodifluoromethane	5	ND	ND	ND				
Chloromethane	5	ND	ND	ND				
Vinyl Chloride	2	ND	ND	ND				
Bromomethane	5	ND	ND	ND				
Chloroethane	5	ND	ND	ND				
Trichlorofluoromethane	5	ND	ND	ND				
1,1-Dichloroethene	5	ND	ND	ND				
Iodomethane	5	ND	ND	ND				
Methylene Chloride	5	ND	ND	ND				
trans-1,2-Dichloroethene	5	ND	ND	ND				
1,1-Dichloroethane	5	ND	ND	ND				
2,2-Dichloropropane	5	ND	ND	ND				
cis-1,2-Dichloroethene	5	ND	ND	ND				
Bromochloromethane	5	ND	ND	ND				
Chloroform	5	ND	ND	ND				
1,2-Dichloroethane	5	ND	ND	ND				
1,1,1-Trichloroethane	5	ND	ND	ND				
Carbon tetrachloride	5	ND	ND	ND				
1,1-Dichloropropene	5	ND	ND	ND				
Benzene	1	ND	ND	ND				
Trichloroethene	2.5	ND	ND	ND				
1,2-Dichloropropane	5	ND	ND	ND				
Bromodichloromethane	5	ND	ND	ND				
Dibromomethane	5	ND	ND	ND				
Trans-1,3-Dichloropropene	5	ND	ND	ND				
cis-1,3-Dichloropropene	5	ND	ND	ND				
1,1,2-Trichloroethane	5	ND	ND	ND				
1,3-Dichloropropane	5	ND	ND	ND				
Dibromochloromethane	5	ND	ND	ND				
2-Chloroethylvinyl ether	5	ND	ND	ND				
Bromoform	5	ND	ND	ND				
Isopropylbenzene	5	ND	ND	ND				
Bromobenzene	5	ND	ND	ND				
Toluene	1	ND	ND	ND				
Tetrachloroethene	2.5	ND	ND	ND				
1,2-Dibromoethane(EDB)	5	ND	ND	ND				

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Southland Technical Services, Inc.
Environmental Laboratories

Client: URS Corporation
Project: 29863493.02034/Sears Oakland 1039

Lab Job No.: UR212101
Matrix: Water

Date Reported: 12-20-2002
Date Sampled: 12-12-2002

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

COMPOUND	MDL	MB	EB-1	TB-1				
Chlorobenzene	5	ND	ND	ND				
1,1,1,2-Tetrachloroethan	5	ND	ND	ND				
Ethylbenzene	1	ND	ND	ND				
Total Xylenes	2	ND	ND	ND				
Styrene	5	ND	ND	ND				
1,1,2,2-Tetrachloroethan	5	ND	ND	ND				
1,2,3-Trichloropropane	5	ND	ND	ND				
n-Propylbenzene	5	ND	ND	ND				
2-Chlorotoluene	5	ND	ND	ND				
4-Chlorotoluene	5	ND	ND	ND				
1,3,5-Trimethylbenzene	5	ND	ND	ND				
tert-Butylbenzene	5	ND	ND	ND				
1,2,4-Trimethylbenzene	5	ND	ND	ND				
Sec-Butylbenzene	5	ND	ND	ND				
1,3-Dichlorobenzene	5	ND	ND	ND				
p-Isopropyltoluene	5	ND	ND	ND				
1,4-Dichlorobenzene	5	ND	ND	ND				
1,2-Dichlorobenzene	5	ND	ND	ND				
n-Butylbenzene	5	ND	ND	ND				
1,2,4-Trichlorobenzene	5	ND	ND	ND				
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND				
Hexachlorobutadiene	5	ND	ND	ND				
Naphthalene	5	ND	ND	ND				
1,2,3-Trichlorobenzene	5	ND	ND	ND				
Acetone	25	ND	ND	ND				
2-Butanone (MEK)	25	ND	ND	ND				
Carbon disulfide	25	ND	ND	ND				
4-Methyl-2-pentanone	25	ND	ND	ND				
2-Hexanone	25	ND	ND	ND				
Vinyl Acetate	25	ND	ND	ND				
MTBE	2	ND	ND	ND				
ETBE	2	ND	ND	ND				
DIPE	2	ND	ND	ND				
TAME	2	ND	ND	ND				
t-Butyl Alcohol	10	ND	ND	ND				
SURROGATE	**SPK Conc.**	**%RC**	**%RC**	**%RC**				**Accept Limit%**
Dibromofluoro-methane	25	101	91	90				79-126
Toluene-d8	25	93	94	95				79-121
Bromofluoro-benzene	25	94	91	88				71-131

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

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Southland Technical Services, Inc.
Environmental Laboratories

12-20-2002

EPA 8015M (TPH)
Batch QA/QC Report

Client:	URS Corporation	Lab Job No.:	UR212101
Project:	29863493.02034/Sears Oakland 1039		
Matrix:	Water	Lab Sample ID:	ST21214-1
Batch No.:	EL14-DW1	Date Analyzed:	12-14-2002

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	24.3	24.1	121.5	120.5	0.8	30	70-130

II. LCS Result
Unit: ppm

Analyte	LCS Report Value	True Value	Rec.%	%Rec Accept. Limit
TPH-d	23.9	20	119.5	80-120

ND: Not Detected (at the specified limit).

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Southland Technical Services, Inc.
Environmental Laboratories

12-20-2002

EPA 8015M (TPH)
Batch QA/QC Report

Client:	URS Corporation	Lab Job No.:	UR212101
Project:	29863493.02034/Sears Oakland 1039		
Matrix:	Water	Lab Sample ID:	UR212100-3
Batch No.:	AL17-GW1	Date Analyzed:	12-17-2002

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	903	772	90.3	77.2	15.6	30	70-130

II. LCS Result
Unit: ppb

Analyte	LCS Report Value	True Value	Rec.%	%Rec Accept. Limit
TPH-G	966	1000	96.6	80-120

ND: Not Detected (at the specified limit).

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Southland Technical Services, Inc.
Environmental Laboratories

12-20-2002

EPA 8260B
Batch QA/QC Report

Client: URS Corporation
Project: 29863493.02034/Sears Oakland 1039
Matrix: Water
Batch No: 1217-VOAW

Lab Job No.: UR212101
Lab Sample ID: UR212100-1
Date Analyzed: 12-17-2002

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	20.1	92.0	100.5	8.8	30	70-130
Benzene	ND	20	19.3	22.0	96.5	110.0	13.1	30	70-130
Trichloro-ethene	ND	20	19.6	20.9	98.0	104.5	6.4	30	70-130
Toluene	ND	20	21.8	21.7	109.0	108.5	0.5	30	70-130
Chlorobenzene	ND	20	17.7	20.5	88.5	102.5	14.7	30	70-130

II. LCS Result
Unit: ppb

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	18.7	20.0	93.5	80-120
Benzene	21.8	20.0	109.0	80-120
Trichloro-ethene	22.6	20.0	113.0	80-120
Toluene	22.3	20.0	111.5	80-120
Chlorobenzene	21.9	20.0	109.5	80-120

ND: Not Detected.

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CHAIN OF CUSTODY RECORD

Date: 12/12/02

Page 3 of 3

URQ12101

☐ Data Requested in GISKey Format

Lab Name: STS	URS Project/PO Number: 29863493 02034
Client Name/Project Name/Location: Sears #1039	GeoTracker Information:
URS Project Manager: Scott Rowland	EDF Reporting Y N Global ID:
Sampler Name and Signature: Nathan Starr	COELT Log Number:

	Sample Name:	Sample Date	Sample Time	Preserved	Matrix:	Container Type:	# of Cont	Requested Analyses: TPHd/8015M	VOCs/8260D	TPHd TO/8015M	Lab ID	HOLD	Special Instructions
1	BD-1	12-12-02	1230	Y N HC	S L G	Acetate SS Brass Jar Encore ____ml Amb Plas. Glass VOA	3	X	X		URQ12101-9		
2	BD-1	12-12-02	1230	Y N	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA 1L	1			X	-9		
3				Y N	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA							
4				Y N	S L G	Acetate SS Brass Jar Encore ____ml Amb. Plas Glass VOA							
5				Y N	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas Glass VOA							
6				Y N	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA							
7				Y N	S L G	Acetate SS Brass Jar Encore ____ml Amb. Plas Glass VOA							
8				Y N	S L G	Acetate SS Brass Jar Encore ____ml Amb Plas. Glass VOA							
9				Y N	S L G	Acetate SS. Brass Jar Encore ____ml Amb Plas. Glass VOA							
10				Y N	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA							

Relinquished by:	Date	Received By: STS	Date/Time: 12/13/02 900 hrs
Relinquished by:	Date:	Received By:	Date/Time
Relinquished by	Date:	Received By:	Date/Time

Turnaround Time. (Check)

Same Day ____ 72 Hour ____

24 Hour ____ 5 Day ____

48 Hour ____ Standard ✓

Lab Use Only

Cooler Temperature*: 4°C

*Record upon arrival

URS

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CHAIN OF CUSTODY RECORD

Date: 12/12/02

URR212101

☐ Data Requested in GISKey Format

Lab Name	URS Project/PO Number
STS	29863493.02034
Client Name/Project Name/Location	**GeoTracker Information**
Sears #1039	
URS Project Manager	**EDF Reporting Y N Global ID**
Scott Rowlands	
Sampler Name and Signature	**COELT Log Number**
Nathan Sears	

	Sample Name	Sample Date	Sample Time	Preserved	Matrix	Container Type:	# of Cont	TPHd /8015M	VOCs 8260B	TPHd +0 /8015M	Lab ID	HOLD	Special Instructions
1	MW-9	12-12-02	1140	Y (N) HCl	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass (VOA)	3	X	X		URR212101	-8	
2	MW-9	12-12-02	1140	Y (N)	S L G	Acetate SS. Brass Jar Encore ____ml (Amb.) Plas. (Glass) VOA 1L	1			X		-8	
3	EB-1	12-12-02	1210	Y (N)	S L G	Acetate SS Brass Jar Encore ____ml (Amb.) Plas. (Glass) VOA 1L	1			X		-10	
4	EB-1	12-12-02	1210	Y (N) HCl	S L G	Acetate SS Brass Jar Encore ____ml Amb Plas. Glass (VOA)	3	X	X			-10	
5	MW-2	12-12-02	1320	Y (N)	S L G	Acetate SS Brass Jar Encore ____ml Amb Plas. Glass VOA 1L	1			X		-2	
6	MW-2	12-12-02	1320	Y (N) HCl	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass (VOA)	3	X	X			-2	
7	MW-7	12-12-02	1405	Y (N) HCl	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas Glass (VOA)	3	X	X			-6	
8	MW-7	12-12-02	1405	Y (N)	S L G	Acetate SS. Brass Jar Encore ____ml (Amb.) Plas. (Glass) VOA 1L	1			X		-6	
9	TB-1			Y (N)	S L G	Acetate SS Brass Jar Encore ____ml Amb. Plas Glass (VOA)	3		X			-11	
10	~~NS TB-1~~			Y (N)	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	~~3~~ NA						

Requested Analyses

Relinquished by.	Date	Received By.	Date/Time
		STS	12/13/02 900hrs
Relinquished by:	Date.	Received By	Date/Time
Relinquished by	Date	Received By	Date/Time.

Turnaround Time (Check)

Same Day	72 Hour
24 Hour	5 Day
48 Hour:	Standard

Lab Use Only

Cooler Temperature*: 4°C
*Record upon arrival

URS

S=Solid L=Liquid G= Gas

White Copy in Final Report, Yellow to File, Pink to URS at Dropoff

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CHAIN OF CUSTODY RECORD

Date: 12/12/02

Page 1 of 3

URR212101

☐ Data Requested in GISKey Format

Lab Name: STS #1039	URS Project/PO Number: 29863493.02034
Client Name/Project Name/Location: Sears	GeoTracker Information:
URS Project Manager: Scott Rowland	EDF Reporting Y N Global ID:
Sampler Name and Signature: Nathan Sears	GOELT Log Number:

	Sample Name	Sample Date	Sample Time	Preserved	Matrix	Container Type:	# of Cont	TPHg /8015M	TPHd+TPHo/8015M	VOCs 8260B	Lab ID	HOLD	Special Instructions
1	MW-1	12-12-02	0805	Y N HCl	S G	Acetate SS Brass Jar Encore ml Amb Plas Glass VOA	3	X		X	URR212101-1		
2	MW-1	12-12-02	0805	Y N	S G	Acetate SS Brass Jar Encore ml Amb Plas Glass VOA 1L	1		X		-1		
3	MW-3	12-12-02	0850	Y N HCl	S G	Acetate SS Brass Jar Encore ml Amb Plas Glass VOA	3	X		X	-3		
4	MW-3	12-12-02	0850	Y N	S G	Acetate SS Brass Jar Encore ml Amb Plas Glass VOA 1L	1		X		-3		
5	MW-4	12-12-02	0945	Y N HCl	S G	Acetate SS Brass Jar Encore ml Amb Plas Glass VOA	3	X		X	-4		
6	MW-4	12-12-02	0945	Y N	S G	Acetate SS Brass Jar Encore ml Amb Plas Glass VOA 1L	1		X		-4		
7	MW-5	12-12-02	1025	Y N HCl	S G	Acetate SS Brass Jar Encore ml Amb Plas Glass VOA	3	X		X	-5		
8	MW-5	12-12-02	1025	Y N	S G	Acetate SS Brass Jar Encore ml Amb Plas Glass VOA 1L	1		X		-5		
9	MW-8	12-12-02	1057	Y N HCl	S G	Acetate SS Brass Jar Encore ml Amb Plas Glass VOA	3	X		X	-7		
10	MW-8	12-12-02	1057	Y N	S G	Acetate SS Brass Jar Encore ml Amb Plas Glass VOA 1L	1		X		-7		

Requested Analyses:

Relinquished by:	Date	Received By	Date/Time
		STS	12/13/02 900A.
Relinquished by:	Date	Received By	Date/Time
Relinquished by:	Date	Received By	Date/Time

Turnaround Time. (Check)

Same Day	72 Hour
24 Hour	5 Day
48 Hour	Standard

Lab Use Only

Cooler Temperature*: 4°C

*Record upon arrival

URS

S=Solid L=Liquid G= Gas

White Copy in Final Report, Yellow to File, Pink to URS at Dropoff

APPENDIX C

URS DATA VALIDATION REPORTS

Level III Data Validation Summary

PROJECT: Sears Oakland 1039
LABORATORY: Southland Technical Services, Inc. (STS)
MATRIX: Water
LAB PROJECT #: UR212101
SAMPLES: See table below

Field ID	QC Designations	Lab ID	TPH-Gasoline	TPH-Diesel, TPH-Oil	VOCs (including Fuel Oxygenates)
MW-1		UR212101-1	X	X	X
MW-3		UR212101-3	X	X	X
MW-4		UR212101-4	X	X	X
MW-5		UR212101-5	X	X	X
MW-8		UR212101-7	X	X	X
MW-9		UR212101-8	X	X	X
EB-1	Equipment blank	UR212101-10	X	X	X
MW-2		UR212101-2	X	X	X
MW-7		UR212101-6	X	X	X
TB-1	Trip Blank	UR212101-11	X	X	X
BD-1	Field duplicate of MW-2	UR212101-9	X	X	X

Date Sampled: 12/12/02
TPH-Gasoline= Total petroleum hydrocarbons – gasoline range (C4-C12), TPH-Diesel= Total petroleum hydrocarbons – diesel range (C13-C23)
TPH-Oil= Total petroleum hydrocarbons – 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 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	TPH-Diesel, 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)	✓(3)
Duplicate or Spike Duplicate	✓(1)	(2)	✓(3)
Field Duplicate	✓	✓	✓
Equipment Blank	✓	✓	✓
Trip Blank	✓	✓	✓

✓ = Quality control evaluation criteria met.
NA = Not Applicable or Not Analyzed

Notes:
1. MS/MSD was conducted on sample MW-3. The results were within acceptance criterion.
2. MS/MSD was conducted on a non-site related sample; 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.
3. MS/MSD was conducted on sample MW-1. The results were within acceptance criterion.

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-Diesel	500
TPH-Oil	2000
TPH-Gasoline	50
VOCs	1 to 25
MTBE	2
TBA	10
Other Oxygenates	2

Aqueous units are microgram per Liter (μg /L)

Sample MW-7 required dilution for the 8260B analysis due to the high concentration of non-target and target analytes (Gasoline, and Benzene). For this sample, 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.