URS

June 21, 2001

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

RE: 2000 Fourth Quarter Groundwater Monitoring
Former Sears Retail Center #1058
2633 Telegraph Avenue
Oakland, California
Case I.D. #STID 1082
For Sears, Roebuck & Co.

Dear Mr. Gholami

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 2000. Quarterly groundwater monitoring will continue within the current scope of work. The quarterly groundwater report for the first quarter 2001 and a workplan for additional site characterization and evaluation are currently being prepared for submittal. Please feel free to contact me or project director Taras Kruk at 714.835.6886 if you have questions or comments.

Respectfully Submitted,
URS CORPORATION

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

cc: Mr. Scott DeMuth, Sears Roebuck and Co.
Mr. Ryan Hartley, URS Corporation
Mr. Tim Lester, Environmental Equalizers

URS

REPORT
2000 FOURTH QUARTER
GROUNDWATER MONITORING
FORMER SEARS RETAIL CENTER #1058
2633 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA
CASE I.D. # STID 1082
FOR SEARS, ROEBUCK & CO.

URS Job No. 22-00000139.00
June 21, 2001

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GROUNDWATER MONITORING
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2633 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA
CASE I.D. # STID 1082
URS/D&M JOB NO. 00188-248-128
FOR SEARS, ROEBUCK & CO.

1.0 INTRODUCTION

This report has been prepared by URS Corporation (URS; formerly as Dames & Moore) on behalf of Sears, Roebuck & Co. (Sears). It presents results of the 2000 Fourth Quarter Groundwater Monitoring conducted at the above-referenced site (Figure 1). The former Sears retail center (Site) is located at 2633 Telegraph Avenue. The groundwater monitoring event consisted of "post purge" groundwater sample collection from three monitoring wells (FOMW-1, FOMW-2, FOMW-3) installed on the Site during May 2000. The purpose of the groundwater monitoring was to assess groundwater conditions in the vicinity of a slurry-filled 10,000-gallon fuel oil underground storage tank (UST, Figure 2). The work is being performed under the regulatory oversight of the Alameda County Environmental Health Service (ACEHS).

2.0 SITE DESCRIPTION

The Site is bounded by 27th Street to the north, Telegraph Avenue to the east, Sycamore Street to the south, and Northgate Avenue to the west (Figure 2). The property is currently occupied by a vacant Sears retail store that was constructed in 1930 and an above-grade parking garage that was constructed in the 1960's. Prior to the construction of the store, single and multi-family residences dating to the turn of the century occupied the site. The former Sears retail center is three stories tall (approximately 120,000 square feet) with a basement. Sears no longer owns the site but maintains responsibility for environmental issues related to the slurry filled 10,000 fuel oil UST. The Site elevation is approximately 30 feet above mean sea level (MSL), which slopes gently to the south towards San Francisco Bay.

A slurry-filled 10,000-gallon fuel oil UST is located at the northern end of the retail center along 27th Street. It is constructed of single-walled steel with product piping that extends into a nearby basement (former boiler room) of the retail center. The top of the UST is located beneath the loading

dock of the store approximately 25 to 30 feet below ground surface (bgs). It is accessible through an opening in the loading dock where a 5 feet by 5 feet shaft extends down to the UST. The UST is contained in a concrete vault estimated to be about 10 feet high and 30 feet long. The product piping was sealed and capped when the UST was taken out of commission sometime during the 1960's.

2.1 REGIONAL GEOLOGY AND HYDROGEOLOGY

The Site is approximately 1.5 miles east of the San Francisco Bay and three miles west of the Diablo Range in Oakland, California. The Site is located on the eastern flank of The San Francisco Basin, a broad Franciscan depression. The basement rock is respectively overlain by the Santa Clara Formation, the Alameda Formation, and the Temescal Formation. These formations consist of unconsolidated sediments ranging in total thickness to approximately 1000 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 for organic clays and alluvial fan deposits of sands, gravels and silts. The uppermost Holocene Temescal Formation is an alluvial deposit ranging in thickness from one to 50 feet and consists primarily of silts and clays with a basal gravel unit. (CRWQCB, San Francisco Bay Region, June 1999).

The site is located within the Oakland sub-area 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 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 (CRWQCB, San Francisco Bay Region, June 1999).

3.0 BACKGROUND

Lowney Associates (Lowney) performed a "Phase I Environmental Site Assessment (ESA) and Soil and Groundwater Quality Evaluation" in April, 1998 and a "Phase II Soil and Groundwater Evaluation," in July, 1998. The first assessment included advancing five exploratory borings in three areas of recognized environmental concerns for collection of soil samples and groundwater grab samples (Figure 2). Borings EB-1, EB-2, and EB-3 were driven in an area between the boiler room and a suspect pipe in the 27th Street sidewalk. Two borings were drilled within 10-feet of an adjacent dry cleaners (EB-4) and in the vicinity of a possible former tire and oil shop at the southwest corner of the retail store (EB-5). Detectable concentrations of total petroleum hydrocarbons (TPH) ranging from 79 milligrams per kilogram (mg/kg) to 9,500 mg/kg were present in soil samples collected from borings EB-1, EB-2, EB-3 and EB-5. Benzene was not detected in any of the soil samples submitted for chemical analysis.

During the second assessment conducted by Lowney, seven additional borings were advanced down gradient of the anticipated groundwater flow direction to collect selected soil and groundwater grab samples (Figure 2). The investigation also confirmed the location and existence of the 10,000-gallon UST beneath the loading dock of the retail center and identified the piping beneath the sidewalk of 27th Street as the UST fill line. Soil samples collected from borings EB-6 through EB-12 contained non-detectable (ND) concentrations of TPH and benzene, toluene, ethylbenzene, total xylenes (BTEX).

Groundwater grab samples were collected by Lowney during the two assessments from borings EB-1 through EB-6, EB-10, EB-11, and EB-12. Groundwater grab samples collected from borings EB-1, EB-2, EB-3, and EB-5 contained detectable concentrations of TPH ranging from 38,000 micrograms per liter (µg/L) to 480,000 µg/L. Groundwater grab samples collected from borings EB-2 and EB-4 contained detectable concentrations of benzene at 4.8 µg/L and 4.3 µg/L, respectively. The remaining groundwater grab samples contained ND concentrations of TPH and BTEX.

SECOR International Incorporated (SECOR) subsequently performed an additional soil and groundwater investigation during November 1998 to further assess subsurface soils and groundwater near the southeastern corner of the property. The scope of work was approved by the ACEHS and included the advancement of nine soil borings (EB-13 through EB-21) for the collection of soil and groundwater grab samples (Figure 2). Soil samples collected from borings EB-19, EB-20, and EB-21 contained detectable concentrations of TPH ranging from 4 mg/kg to 160 mg/kg. All soil samples, excluding EB-20-7, analyzed during the investigation contained ND concentrations of BTEX. Soil sample EB-20-7 contained 0.044 mg/kg of ethylbenzene and ND concentrations of

5.0 QUARTERLY GROUNDWATER MONITORING

The 2000 Fourth Quarter Groundwater Monitoring was performed on December 15, 2000. The monitoring was performed on the three groundwater wells (FOMW-1, FOMW-2, and FOMW-3). The monitoring consisted of groundwater gauging, purging, sampling and analysis. A description of the monitoring procedures is presented below.

5.1 GROUNDWATER GAUGING AND CONTOURING

Prior to sampling, each groundwater monitoring well was observed for the presence of free product using a disposable polyethylene bailer. Free product was observed in well FOMW-1 with a measured thickness of 0.01 foot. Water levels were gauged using a Solinst water level indicator relative to the surveyed top of casing. Based on results of the water level measurements, an interpretive groundwater contour map was generated by standard three-point convention. Groundwater depths and elevations are listed in Table 1. A Site map showing groundwater flow direction is provided as Figure 3.

5.2 PURGING AND SAMPLING METHODS

Prior to sample collection, wells FOMW-1, FOMW-2, and FOMW-3 were purged of approximately three to five well casing volumes using a two-stage submersible pump. Water purged from each well was monitored for field parameters, including temperature, pH, electrical conductivity, dissolved oxygen, ferrous iron (Fe^{++}), and oxygen reduction potential (redox). The measured field parameters are listed on Table 1. Due to the presence of free product, field parameter readings were not taken from FOMW-1.

The purging of wells FOMW-2 and FOMW-3 was terminated when temperature, pH, and conductivity measurements stabilized. Following the purging and well recovery to at least 80% of original static water levels (or after one hour of recovery), groundwater samples were collected for laboratory analysis by lowering a disposable polyethylene bailer approximately one to two feet below the air-water interface. Water samples were collected from the monitoring wells using pre-cleaned, disposable polyethylene bailers. Prior to sampling, each bailer was fitted with a low-flow velocity sampling port to minimize sample turbulence and volatilization.

Due to the presence of free-product in well FOMW-1, a 2-inch diameter PVC casing fitted with a removable latex rubber end covering was inserted in the well into the water column beneath the floating product. The well was subsequently purged and sampled through the PVC casing to avoid contact with the free product.

Sample containers and handling procedures conformed to the established protocols for each specific parameter as described in EPA SW-846. The sample bottles, once filled and preserved as required, were properly labeled 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. A duplicate sample was collected from well FOMW-1 and labeled FOMW-4. The sealed and labeled samples were placed in ice chests maintained and temperature of 4 to 7 degrees centigrade and transported to a CDHS-Certified testing laboratory. Chain-of-custody records were maintained throughout the sampling program.

5.3 LABORATORY ANALYSIS PROGRAM

Groundwater samples submitted to the CDHS-Certified laboratory were analyzed for TEPH as diesel-fuel and bunker-oil by modified EPA 8015, and for volatile organic compounds (VOCs) by EPA 8260. As part of the attenuation monitoring program, two selected groundwater samples were also analyzed for dissolved methane by headspace analysis, nitrate and sulfate by EPA method 300, total alkalinity by EPA 310.1, total dissolved solids (TDS) by EPA 160.1, hydrocarbon degraders by ASTM G-22, and heterotrophic plate count by SM 9215A.

5.4 WASTE MANAGEMENT

Liquid wastes (well purge water) were collected and stored in 55-gallon DOT-approved drums. Containers were numbered to identify the source of the wastes. The containers were stored onsite and properly disposed following review of the chemical analysis data.

6.0 MONITORING RESULTS

6.1 SHALLOW GROUNDWATER CONDITIONS

The groundwater potentiometric surface beneath the site occurs at depths ranging from approximately 9 to 11 feet bgs or an elevation of 16 to 18 feet above MSL. The water bearing zones are moderately confined, as water levels ascended within drill rods after penetration of the coarser-grained water bearing units during well installation. Water level measurements collected during the 2000 Fourth Quarter Groundwater Monitoring indicate groundwater flow is to the southeast with an approximate gradient of 0.015 foot per foot. Groundwater elevations beneath the site have increased an average of 0.85 feet since the last monitoring event conducted in October 2000. Groundwater elevations and flow directions are presented in Table 1 and shown on Figure 3.

6.2 LABORATORY ANALYTICAL RESULTS

Chemical analyses results of the soil and groundwater samples collected during this investigation are presented in Table 2. The CDHS-Certified laboratory reports and chain-of-custody forms are provided as Appendix A. The groundwater samples collected from monitoring well FOMW-1 and FOMW-3 contained 370 µg/L and 100 µg/L of (TEPH) as diesel fuel. TEPH were not detected in the sample collected from well FOMW-2. None of the groundwater samples collected and submitted for chemical analysis during this quarter contained detectable concentrations of VOCs including BTEX or MTBE.

URS conducted a check of data completeness for the analytical laboratory reports. Results indicate that "these data are usable, as qualified, for their intended purpose." URS's Data Validation Reports are included as Appendix B.

7.0 DISCUSSION

Results of the 2000 Fourth Quarter Groundwater Monitoring indicate that petroleum hydrocarbons within the diesel fuel range are present in shallow groundwater beneath the Site in the vicinity of the slurry filled UST. VOCs associated with petroleum fuel products such as BTEX and MTBE were not detected in any groundwater samples collected during this quarter or the two previous groundwater sampling events conducted in June and October 2000. Results of the physical and biological testing are typical of nonaggressive oxidizing conditions. They also imply that conditions exist for biodegradation of residual petroleum hydrocarbons in the soil and groundwater.

Based on beneficial uses of groundwater in the Site vicinity, and the constituent concentrations detected during this and previous investigations, there appears to be no significant risk of petroleum hydrocarbon exposure to any sensitive receptors in the area. As introduced in the 2000 Second Quarter report, URS plans to further evaluate site conditions related to the petroleum hydrocarbon plume and establish closure conditions for the slurry-filled UST in accordance with the Urban Land Redevelopment (URL) Program. In order to establish closure criteria, the following additional investigative activities have been proposed for the Site:

- Install one well downgradient of FOMW-1 to further delineate the petroleum hydrocarbon impacted plume.
- Complete the four quarters of groundwater monitoring that were implemented as part of this program.
- Completely fill the UST vault and access manway with slurry to eliminate the potential of unauthorized entry into the vault.
- After four quarters of groundwater monitoring, complete a Tier 2 analysis in accordance with the URL Program guidance document.

Given our current understanding of the petroleum hydrocarbon plume conditions, the Site will likely conform with Tier 2 closure criteria.

8.0 SCHEDULE

This report represents the third submittal for quarterly groundwater monitoring at the site. A subsequent sampling event has been completed in March 2001. URS proposes to install one additional groundwater monitoring well prior to conducting any additional quarterly monitoring. URS will continue to notify ACEHS personnel of upcoming field activities.

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

Respectfully Submitted,

URS CORPORATION

Taras B. Kruk, R.G., C.HG.
Project Director

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

9.0 REFERENCES

California Regional Water Quality Control Board—San Francisco Bay Region Groundwater Committee (RWQCB), 1999. *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*. June 1999, 106 p.

Dames & Moore, 2000. *Site Assessment and Groundwater Monitoring Work Plan*, Former Sears Retail Center #1058, 2633 Telegraph Avenue, Oakland, California, February 24.

URS/Dames & Moore, 2001. *Well Installation and 2000 Second Quarter Groundwater Monitoring,* Former Sears Retail Center #1058, 2633 Telegraph Avenue, Oakland, California, January 30.

Figuers, S., 1998. Groundwater Study and Water Supply History of the East Bay Plain, Alameda and Contra Costa Counties, California, 12 p.

Lowney, 1998. *Phase I Environmental Site Assessment and Soil and Groundwater Quality Evaluation*, 2633 Telegraph Avenue, Oakland, California, April 21.

Lowney, 1998. *Soil and Groundwater Quality Evaluation*, 2633 Telegraph Avenue, Oakland, California, July 6.

Muir, Kenneth S., 1993. *Geologic Framework of the East Bay Plain Groundwater Basin, Alameda, California. Prepared for the Alameda County Flood Control and Water Conservation District*, August 1993.

SECOR, 1998. Summary Report Subsurface Investigation and Site Closure Tasks, 2633 Telegraph Avenue, Oakland, California, December 8.

URS, 2001. *2000 Third Quarter Groundwater Monitoring,* Former Sears Retail Center #1058, 2633 Telegraph Avenue, Oakland, California, January 30.

Table 1
Historical Groundwater Levels and Parameters
Sears Retail Center Store No. 1058
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. (Celcius)	pH	Cond (uS)	Redox (mV)	Dissolved Oxygen (mg/l)	Ferrous Iron (%)
FOMW-1	6/8/00	1,2	0.00	9.59	27.81	18.22	18.3	6.72	659	13	0.28	NA
	10/10/00	SP	0.01	9.91	27.81	17.90	NA	NA	NA	NA	NA	NA
	12/15/00	SP	0.01	9.44	27.81	18.37	NA	NA	NA	NA	NA	NA
FOMW-2	6/8/00	--	0.00	11.14	26.65	15.51	14.7	7	673	10	2.92	NA
	10/10/00	--	0.00	12.34	26.65	14.31	15.8	7.58	420	0	NA	NA
	12/15/00	--	0.00	11.05	26.65	15.6	14.0	7.09	1210	NA	0.15	NA
FOMW-3	6/8/00	2	0.00	10.48	26.8	16.32	15.0	6.87	689	23	0.22	NA
	10/10/00	--	0.00	11.15	26.8	15.65	15.6	7.66	430	39	NA	NA
	12/15/00	--	0.00	10.36	26.8	16.44	14.1	7.31	1400	45	0.15	NA

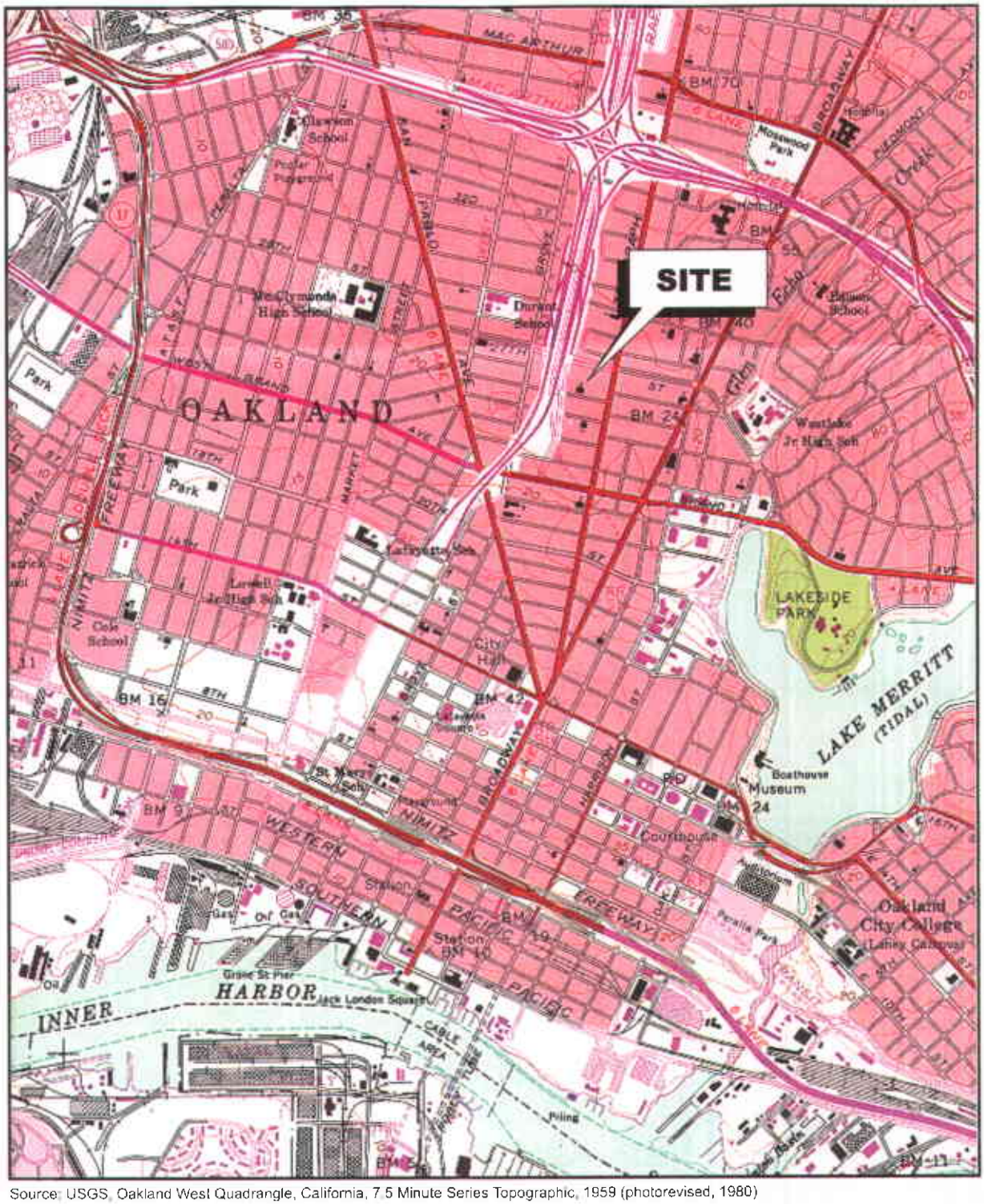
Notes:
MSL - Mean Sea Level
Groundwater Elevation reference to MSL
Groundwater Elevation = Top of casing elevation - Depth to Water
1 Sheen observed on water surface.
2 Petroleum odor in groundwater
SP = Separate phase product in well
NA: Not analyzed/Not available

TABLE 2
HISTORICAL SUMMARY OF GROUNDWATER MONITORING RESULTS
SEARS RETAIL STORE NO. 1058
OAKLAND, CALIFORNIA

Monitoring Well No.	Sample Date	Notes	LABORATORY ANALYTICAL RESULTS							PHYSICAL PARAMETERS						
			Volatile Organics by GC/MS 8260A					TEPH								
			B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Diesel (ug/L)	Bunker Oil (ug/L)	Nitrate (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Total Alkalinity (mg/L)	Dissolved Methane (ug/ML)	Hydrocarbon Degraders (CFU/ML)	Heterotrophic Plate Count (CFU/ML)
FOMW-1	6/8/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	J 1200	NA	NA	360	230	< 0.01	390	4000
	10/10/00	SP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/15/00	SP	< 0.5	< 0.5	< 0.5	< 1	< 5	260	< 50	NA	NA	NA	NA	NA	NA	NA
	12/15/00	1	< 0.5	< 0.5	< 0.5	< 1	< 5	370	< 50	NA	NA	NA	NA	NA	NA	NA
FOMW-2	6/8/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	< 50	NA	NA	250	150	< 0.01	1	110
	10/10/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	< 50	NA	NA	260	140	< 0.01	170	1600
	12/15/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	< 50	7.8	30	210	190	< 0.01	550	1000
FOMW-3	6/8/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	J 1200	NA	NA	330	190	< 0.01	440	110000
	6/8/00	1	< 0.5	< 0.5	< 0.5	< 1	< 5	< 50	J 1100	NA	NA	330	180	< 0.01	50	8000
	10/10/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	230	< 50	NA	NA	300	170	< 0.01	800	4000
	12/15/00	--	< 0.5	< 0.5	< 0.5	< 1	< 5	100	< 50	3.2	30	290	190	< 0.01	1200	1800

Notes:

TPH - Total extractable petroleum hydrocarbons
B T E X - Benzene, Toluene, Ethylbenzene, Total Xylenes
MTBE - Methyl tertiary-butyl ether
TDS = Toal Dissolved Soilds
1: Duplicate sample
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.
SP: Separate Phase Product



Source: USGS, Oakland West Quadrangle, California, 7.5 Minute Series Topographic, 1959 (photorevised, 1980)

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SITE LOCATION MAP

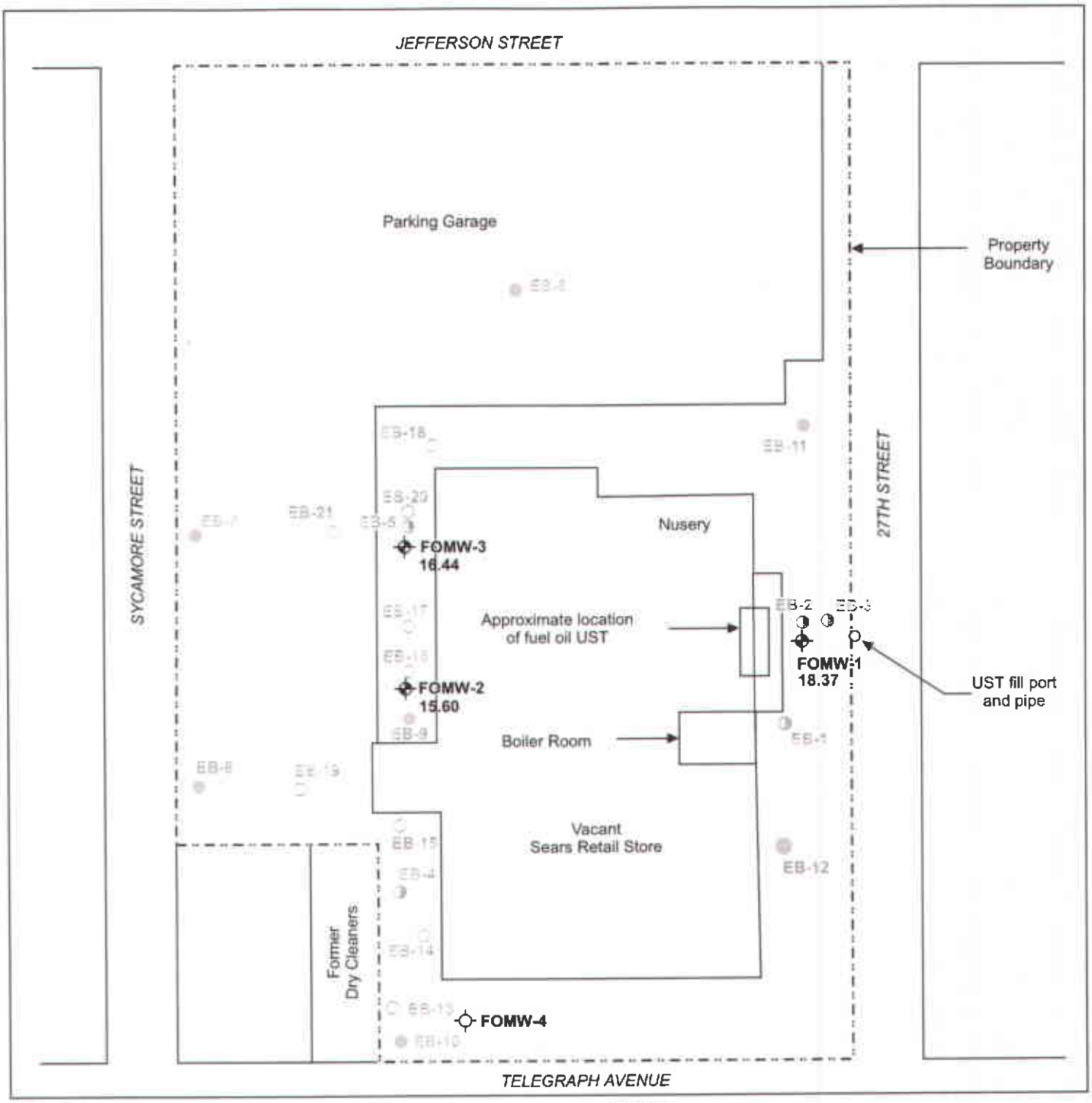
Sears Roebuck & Company
Site Assessment
Oakland, California

April 2001

URS

FIGURE 1

L:/sears oakland/site loc.cdr



LEGEND

- Approximate location of exploratory boring (Lowney, May 1998)
- Approximate location of exploratory boring (Lowney, April 1998)
- Approximate location of exploratory boring (SECOR, November 1998)
- Groundwater monitoring well locations (URS/Dames & Moore)
- Proposed monitoring well location

NOTES

Reference: Lowney Associates (1998)
SECOR (1998)

0 100
Approximate Scale in Feet

SITE PLAN SHOWING BORING AND MONITORING WELL LOCATIONS

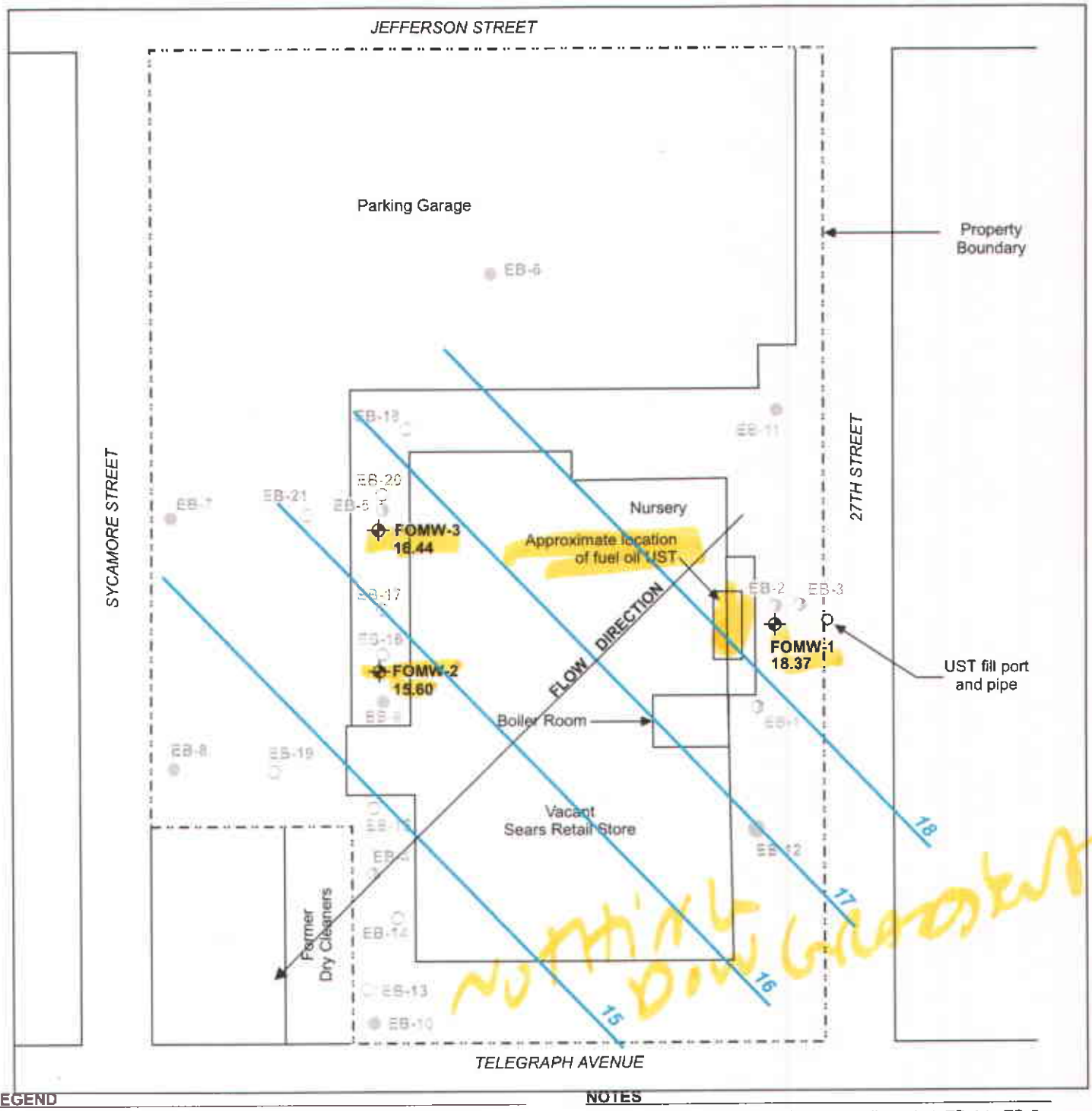
Sears Roebuck & Company
Site Assessment
Oakland, California

April 2001
22-00000139.01

URS

FIGURE 2

L:/sears oakland/boring and well loc.cdr



LEGEND

- Approximate location of exploratory boring (Lowney, May 1998)
- Approximate location of exploratory boring (Lowney, April 1998)
- Approximate location of exploratory boring (SECOR, November 1998)
- Groundwater monitoring well locations (URS/Dames & Moore)

NOTES

(1) Ground water grab samples were collected at EB-1 to EB-5, EB-6, EB-10, EB-11, EB-12, EB-13, EB-14, EB-15 and EB-18.
(2) Soil and groundwater anlaytical results presented in tables 1 and 2.
(3) Groundwater elevations in feet above mean sea level (MSL)

Reference: Lowney Associates (1998)
SECOR (1998)

N

0 100

Approximate Scale in Feet

SITE PLAN SHOWING GROUNDWATER ELEVATIONS AND CONTOUR MAP - DEC. 2000

Sears Roebuck & Company
Site Assessment
Oakland, California

April 2001

URS

FIGURE 3

L:/sears oakland/groundwater elev.cdr

APPENDIX A

LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTS

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-12-0340
Date: January 4, 2001

URS -San Francisco
221 Main Street #600
San Francisco, CA 94105

Attn.: Ryan Seelbach

Project: 00188.248.043
Sears Oakland

Attached is our report for your samples received on Monday December 18, 2000
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after February 1, 2001 unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: asalimpour@chromalab.com

Sincerely,

Afsaneh Salimpour

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096
CA DHS ELAP#1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0340

Volatile Organic Compounds by 8260A

URS -San Francisco

221 Main Street #600
San Francisco, CA 94105

Attn: Ryan Seelbach

Phone: (415) 243-3837 Fax: (415) 882-9261

Project #: 00188.248.043

Project: Sears Oakland

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
FOMW-2	Water	12/15/2000 14:45	1
FOMW-3	Water	12/15/2000 13:45	2
FOMW-1	Water	12/15/2000 15:40	3
FOMW-4	Water	12/15/2000	4

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Volatile Organic Compounds by 8260A

Sample ID: **FOMW-2**
Project: 00188.248.043
Sears Oakland
Sampled: 12/15/2000 14:45
Matrix: Water

Lab Sample ID: **2000-12-0340-001**
Received: 12/18/2000 14:05
Extracted: 12/21/2000 00:46
QC-Batch: 2000/12/20-01.07

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Acetone	ND	50	ug/L	1.00	12/21/2000 00:46	
Benzene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Bromodichloromethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Bromoform	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Bromomethane	ND	1.0	ug/L	1.00	12/21/2000 00:46	
Carbon tetrachloride	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Chlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Chloroethane	ND	1.0	ug/L	1.00	12/21/2000 00:46	
2-Butanone(MEK)	ND	50	ug/L	1.00	12/21/2000 00:46	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Chloroform	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Chloromethane	ND	1.0	ug/L	1.00	12/21/2000 00:46	
Dibromochloromethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1.00	12/21/2000 00:46	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Dibromomethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Ethylbenzene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
2-Hexanone	ND	50	ug/L	1.00	12/21/2000 00:46	
Methylene chloride	ND	5.0	ug/L	1.00	12/21/2000 00:46	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	12/21/2000 00:46	
Naphthalene	ND	1.0	ug/L	1.00	12/21/2000 00:46	
Styrene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Tetrachloroethene	ND	0.50	ug/L	1.00	12/21/2000 00:46	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Volatile Organic Compounds by 8260A

Sample ID:	**FOMW-2**	Lab Sample ID:	**2000-12-0340-001**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	12/21/2000 00:46
Sampled:	12/15/2000 14:45	QC-Batch:	2000/12/20-01.07
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Toluene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Trichloroethene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Vinyl acetate	ND	5.0	ug/L	1.00	12/21/2000 00:46	
Vinyl chloride	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Total xylenes	ND	1.0	ug/L	1.00	12/21/2000 00:46	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Carbon disulfide	ND	1.0	ug/L	1.00	12/21/2000 00:46	
Isopropylbenzene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Bromobenzene	ND	0.50	ug/L	1.00	12/21/2000 00:46	
Bromochloromethane	ND	1.0	ug/L	1.00	12/21/2000 00:46	
Trichlorofluoromethane	ND	2.0	ug/L	1.00	12/21/2000 00:46	
MTBE	ND	5.0	ug/L	1.00	12/21/2000 00:46	
Surrogate(s)						
4-Bromofluorobenzene	100.8	86-115	%	1.00	12/21/2000 00:46	
1,2-Dichloroethane-d4	104.9	76-114	%	1.00	12/21/2000 00:46	
Toluene-d8	101.3	88-110	%	1.00	12/21/2000 00:46	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Volatile Organic Compounds by 8260A

Sample ID: **FOMW-3**
Project: 00188.248.043
Sears Oakland
Sampled: 12/15/2000 13:45
Matrix: Water

Lab Sample ID: **2000-12-0340-002**
Received: 12/18/2000 14:05
Extracted: 12/21/2000 01:25
QC-Batch: 2000/12/20-01.07

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Acetone	ND	50	ug/L	1.00	12/21/2000 01:25	
Benzene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Bromodichloromethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Bromoform	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Bromomethane	ND	1.0	ug/L	1.00	12/21/2000 01:25	
Carbon tetrachloride	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Chlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Chloroethane	ND	1.0	ug/L	1.00	12/21/2000 01:25	
2-Butanone(MEK)	ND	50	ug/L	1.00	12/21/2000 01:25	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Chloroform	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Chloromethane	ND	1.0	ug/L	1.00	12/21/2000 01:25	
Dibromochloromethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1.00	12/21/2000 01:25	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Dibromomethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Ethylbenzene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
2-Hexanone	ND	50	ug/L	1.00	12/21/2000 01:25	
Methylene chloride	ND	5.0	ug/L	1.00	12/21/2000 01:25	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	12/21/2000 01:25	
Naphthalene	ND	1.0	ug/L	1.00	12/21/2000 01:25	
Styrene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Tetrachloroethene	ND	0.50	ug/L	1.00	12/21/2000 01:25	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Volatile Organic Compounds by 8260A

Sample ID:	**FOMW-3**	Lab Sample ID:	**2000-12-0340-002**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	12/21/2000 01:25
Sampled:	12/15/2000 13:45	QC-Batch:	2000/12/20-01.07
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Toluene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Trichloroethene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Vinyl acetate	ND	5.0	ug/L	1.00	12/21/2000 01:25	
Vinyl chloride	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Total xylenes	ND	1.0	ug/L	1.00	12/21/2000 01:25	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Carbon disulfide	ND	1.0	ug/L	1.00	12/21/2000 01:25	
Isopropylbenzene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Bromobenzene	ND	0.50	ug/L	1.00	12/21/2000 01:25	
Bromochloromethane	ND	1.0	ug/L	1.00	12/21/2000 01:25	
Trichlorofluoromethane	ND	2.0	ug/L	1.00	12/21/2000 01:25	
MTBE	ND	5.0	ug/L	1.00	12/21/2000 01:25	
Surrogate(s)						
4-Bromofluorobenzene	100.0	86-115	%	1.00	12/21/2000 01:25	
1,2-Dichloroethane-d4	107.6	76-114	%	1.00	12/21/2000 01:25	
Toluene-d8	101.8	88-110	%	1.00	12/21/2000 01:25	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Volatile Organic Compounds by 8260A

Sample ID: **FOMW-1**
Project: 00188.248.043
Sears Oakland
Sampled: 12/15/2000 15:40
Matrix: Water

Lab Sample ID: **2000-12-0340-003**
Received: 12/18/2000 14:05
Extracted: 12/21/2000 02:04
QC-Batch: 2000/12/20-01.07

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Acetone	ND	50	ug/L	1.00	12/21/2000 02:04	
Benzene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Bromodichloromethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Bromoform	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Bromomethane	ND	1.0	ug/L	1.00	12/21/2000 02:04	
Carbon tetrachloride	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Chlorobenzene	0.91	0.50	ug/L	1.00	12/21/2000 02:04	
Chloroethane	ND	1.0	ug/L	1.00	12/21/2000 02:04	
2-Butanone(MEK)	ND	50	ug/L	1.00	12/21/2000 02:04	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Chloroform	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Chloromethane	ND	1.0	ug/L	1.00	12/21/2000 02:04	
Dibromochloromethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1.00	12/21/2000 02:04	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Dibromomethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Ethylbenzene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
2-Hexanone	ND	50	ug/L	1.00	12/21/2000 02:04	
Methylene chloride	ND	5.0	ug/L	1.00	12/21/2000 02:04	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	12/21/2000 02:04	
Naphthalene	ND	1.0	ug/L	1.00	12/21/2000 02:04	
Styrene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Tetrachloroethene	ND	0.50	ug/L	1.00	12/21/2000 02:04	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Volatile Organic Compounds by 8260A

Sample ID:	**FOMW-1**	Lab Sample ID:	**2000-12-0340-003**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	12/21/2000 02:04
Sampled:	12/15/2000 15:40	QC-Batch:	2000/12/20-01.07
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Toluene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Trichloroethene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Vinyl acetate	ND	5.0	ug/L	1.00	12/21/2000 02:04	
Vinyl chloride	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Total xylenes	ND	1.0	ug/L	1.00	12/21/2000 02:04	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Carbon disulfide	ND	1.0	ug/L	1.00	12/21/2000 02:04	
Isopropylbenzene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Bromobenzene	ND	0.50	ug/L	1.00	12/21/2000 02:04	
Bromochloromethane	ND	1.0	ug/L	1.00	12/21/2000 02:04	
Trichlorofluoromethane	ND	2.0	ug/L	1.00	12/21/2000 02:04	
MTBE	ND	5.0	ug/L	1.00	12/21/2000 02:04	
Surrogate(s)						
4-Bromofluorobenzene	99.6	86-115	%	1.00	12/21/2000 02:04	
1,2-Dichloroethane-d4	104.9	76-114	%	1.00	12/21/2000 02:04	
Toluene-d8	103.0	88-110	%	1.00	12/21/2000 02:04	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Volatile Organic Compounds by 8260A

Sample ID:	**FOMW-4**	Lab Sample ID:	**2000-12-0340-004**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	12/21/2000 02:43
Sampled:	12/15/2000	QC-Batch:	2000/12/20-01.07
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Acetone	ND	50	ug/L	1.00	12/21/2000 02:43	
Benzene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Bromodichloromethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Bromoform	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Bromomethane	ND	1.0	ug/L	1.00	12/21/2000 02:43	
Carbon tetrachloride	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Chlorobenzene	0.92	0.50	ug/L	1.00	12/21/2000 02:43	
Chloroethane	ND	1.0	ug/L	1.00	12/21/2000 02:43	
2-Butanone(MEK)	ND	50	ug/L	1.00	12/21/2000 02:43	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Chloroform	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Chloromethane	ND	1.0	ug/L	1.00	12/21/2000 02:43	
Dibromochloromethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1.00	12/21/2000 02:43	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Dibromomethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Ethylbenzene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
2-Hexanone	ND	50	ug/L	1.00	12/21/2000 02:43	
Methylene chloride	ND	5.0	ug/L	1.00	12/21/2000 02:43	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	12/21/2000 02:43	
Naphthalene	ND	1.0	ug/L	1.00	12/21/2000 02:43	
Styrene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Tetrachloroethene	ND	0.50	ug/L	1.00	12/21/2000 02:43	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Volatile Organic Compounds by 8260A

Sample ID:	**FOMW-4**	Lab Sample ID:	**2000-12-0340-004**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	12/21/2000 02:43
Sampled:	12/15/2000	QC-Batch:	2000/12/20-01.07
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Toluene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Trichloroethene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Vinyl acetate	ND	5.0	ug/L	1.00	12/21/2000 02:43	
Vinyl chloride	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Total xylenes	ND	1.0	ug/L	1.00	12/21/2000 02:43	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Carbon disulfide	ND	1.0	ug/L	1.00	12/21/2000 02:43	
Isopropylbenzene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Bromobenzene	ND	0.50	ug/L	1.00	12/21/2000 02:43	
Bromochloromethane	ND	1.0	ug/L	1.00	12/21/2000 02:43	
Trichlorofluoromethane	ND	2.0	ug/L	1.00	12/21/2000 02:43	
MTBE	ND	5.0	ug/L	1.00	12/21/2000 02:43	
Surrogate(s)						
4-Bromofluorobenzene	100.6	86-115	%	1.00	12/21/2000 02:43	
1,2-Dichloroethane-d4	105.9	76-114	%	1.00	12/21/2000 02:43	
Toluene-d8	103.2	88-110	%	1.00	12/21/2000 02:43	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Batch QC Report
Volatile Organic Compounds by 8260A

Method Blank | **Water** | **QC Batch # 2000/12/20-01.07**

MB: 2000/12/20-01.07-006 | Date Extracted: 12/20/2000 12:52

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Acetone	ND	50	ug/L	12/20/2000 12:52	
Benzene	ND	0.5	ug/L	12/20/2000 12:52	
Bromodichloromethane	ND	0.5	ug/L	12/20/2000 12:52	
Bromoform	ND	0.5	ug/L	12/20/2000 12:52	
Bromomethane	ND	1.0	ug/L	12/20/2000 12:52	
Carbon tetrachloride	ND	0.5	ug/L	12/20/2000 12:52	
Chlorobenzene	ND	0.5	ug/L	12/20/2000 12:52	
Chloroethane	ND	1.0	ug/L	12/20/2000 12:52	
2-Butanone(MEK)	ND	50	ug/L	12/20/2000 12:52	
2-Chloroethylvinyl ether	ND	0.5	ug/L	12/20/2000 12:52	
Chloroform	ND	0.5	ug/L	12/20/2000 12:52	
Chloromethane	ND	1.0	ug/L	12/20/2000 12:52	
Dibromochloromethane	ND	0.5	ug/L	12/20/2000 12:52	
1,2-Dichlorobenzene	ND	0.5	ug/L	12/20/2000 12:52	
1,3-Dichlorobenzene	ND	0.5	ug/L	12/20/2000 12:52	
1,4-Dichlorobenzene	ND	0.5	ug/L	12/20/2000 12:52	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	12/20/2000 12:52	
1,2-Dibromoethane	ND	0.5	ug/L	12/20/2000 12:52	
Dibromomethane	ND	0.5	ug/L	12/20/2000 12:52	
Dichlorodifluoromethane	ND	0.5	ug/L	12/20/2000 12:52	
1,1-Dichloroethane	ND	0.5	ug/L	12/20/2000 12:52	
1,2-Dichloroethane	ND	0.5	ug/L	12/20/2000 12:52	
1,1-Dichloroethene	ND	0.5	ug/L	12/20/2000 12:52	
cis-1,2-Dichloroethene	ND	0.5	ug/L	12/20/2000 12:52	
trans-1,2-Dichloroethene	ND	0.5	ug/L	12/20/2000 12:52	
1,2-Dichloropropane	ND	0.5	ug/L	12/20/2000 12:52	
cis-1,3-Dichloropropene	ND	0.5	ug/L	12/20/2000 12:52	
trans-1,3-Dichloropropene	ND	0.5	ug/L	12/20/2000 12:52	
Ethylbenzene	ND	0.5	ug/L	12/20/2000 12:52	
2-Hexanone	ND	50	ug/L	12/20/2000 12:52	
Methylene chloride	ND	5.0	ug/L	12/20/2000 12:52	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	12/20/2000 12:52	
Naphthalene	ND	1.0	ug/L	12/20/2000 12:52	
Styrene	ND	0.5	ug/L	12/20/2000 12:52	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	12/20/2000 12:52	
Tetrachloroethene	ND	0.5	ug/L	12/20/2000 12:52	
Toluene	ND	0.5	ug/L	12/20/2000 12:52	
1,1,1-Trichloroethane	ND	0.5	ug/L	12/20/2000 12:52	
1,1,2-Trichloroethane	ND	0.5	ug/L	12/20/2000 12:52	
Trichloroethene	ND	0.5	ug/L	12/20/2000 12:52	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	12/20/2000 12:52	
Vinyl acetate	ND	5.0	ug/L	12/20/2000 12:52	
Vinyl chloride	ND	0.5	ug/L	12/20/2000 12:52	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Batch QC Report

Volatile Organic Compounds by 8260A

Method Blank | **Water** | **QC Batch # 2000/12/20-01.07**

MB: 2000/12/20-01.07-006 | Date Extracted: 12/20/2000 12:52

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Total xylenes	ND	1.0	ug/L	12/20/2000 12:52	
Trichlorotrifluoroethane	ND	0.5	ug/L	12/20/2000 12:52	
Carbon disulfide	ND	1.0	ug/L	12/20/2000 12:52	
Isopropylbenzene	ND	0.5	ug/L	12/20/2000 12:52	
Bromobenzene	ND	0.5	ug/L	12/20/2000 12:52	
Bromochloromethane	ND	1.0	ug/L	12/20/2000 12:52	
Trichlorofluoromethane	ND	2.0	ug/L	12/20/2000 12:52	
MTBE	ND	5.0	ug/L	12/20/2000 12:52	
Surrogate(s)					
4-Bromofluorobenzene	99.8	86-115	ug/L	12/20/2000 12:52	
1,2-Dichloroethane-d4	104.4	76-114	ug/L	12/20/2000 12:52	
Toluene-d8	103.9	88-110	ug/L	12/20/2000 12:52	

To: **URS -San Francisco**
Attn: Ryan Seelbach

Test Method: 8260A
Prep Method: 5030

Batch QC Report

Volatile Organic Compounds by 8260A

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/12/20-01.07**

LCS: 2000/12/20-01.07-004 Extracted: 12/20/2000 11:39 Analyzed 12/20/2000 11:39
LCSD: 2000/12/20-01.07-005 Extracted: 12/20/2000 12:13 Analyzed 12/20/2000 12:13

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Benzene	39.7	45.1	50.0	50.0	79.4	90.2	12.7	69-129	20		
Chlorobenzene	39.4	44.3	50.0	50.0	78.8	88.6	11.7	61-121	20		
1,1-Dichloroethene	38.1	44.0	50.0	50.0	76.2	88.0	14.4	65-125	20		
Toluene	39.8	46.0	50.0	50.0	79.6	92.0	14.5	70-130	20		
Trichloroethene	39.1	44.8	50.0	50.0	78.2	89.6	13.6	74-134	20		
Surrogate(s)											
4-Bromofluorobenzene	499	497	500	500	99.8	99.4		86-115			
1,2-Dichloroethane-d4	547	544	500	500	109.4	108.8		76-114			
Toluene-d8	495	509	500	500	99.0	101.8		88-110			

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-12-0340

Gases by 3810M

URS -San Francisco

Attn: Ryan Seelbach

Project #: 00188.248.043

221 Main Street #600
San Francisco, CA 94105

Phone: (415) 243-3837 Fax: (415) 882-9261

Project: Sears Oakland

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
FOMW-2	Water	12/15/2000 14:45	1
FOMW-3	Water	12/15/2000 13:45	2

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0340

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 3810M
Prep Method: 3810

Gases by 3810M

Sample ID:	**FOMW-2**	Lab Sample ID:	**2000-12-0340-001**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	01/03/2001 15:00
Sampled:	12/15/2000 14:45	QC-Batch:	2001/01/03-01.37
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Methane	ND	0.010	ug/ml	1.00	01/03/2001 16:16	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 3810M
Prep Method: 3810

Gases by 3810M

Sample ID:	**FOMW-3**	Lab Sample ID:	**2000-12-0340-002**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	01/03/2001 15:00
Sampled:	12/15/2000 13:45	QC-Batch:	2001/01/03-01.37
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Methane	ND	0.010	ug/ml	1.00	01/03/2001 16:27	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0340

To: **URS -San Francisco**

Attn: Ryan Seelbach

Test Method: 3810M

Prep Method: 3810

Batch QC Report

Gases by 3810M

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2001/01/03-01.37**

LCS: 2001/01/03-01.37-002 Extracted: 01/03/2001 15:00 Analyzed 01/03/2001 15:52

LCSD: 2001/01/03-01.37-003 Extracted: 01/03/2001 15:00 Analyzed 01/03/2001 16:09

Compound	Conc. [ug/ml]		Exp.Conc. [ug/ml]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Methane	0.0617	0.0584	0.0721	0.0721	85.6	81.0	5.5	65-135	35		

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-12-0340

pH

URS -San Francisco

221 Main Street #600
San Francisco, CA 94105

Attn: Ryan Seelbach

Phone: (415) 243-3837 Fax: (415) 882-9261

Project #: 00188.248.043

Project: Sears Oakland

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
FOMW-2	Water	12/15/2000 14:45	1
FOMW-3	Water	12/15/2000 13:45	2

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 9040B
Prep Method: 9040B

pH

Sample ID:	**FOMW-2**	Lab Sample ID:	**2000-12-0340-001**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	12/19/2000
Sampled:	12/15/2000 14:45	QC-Batch:	2000/12/19-01.22
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
pH	6.6	0.0	SU	1.00	12/19/2000	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0340

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 9040B
Prep Method: 9040B

pH

Sample ID:	**FOMW-3**	Lab Sample ID:	**2000-12-0340-002**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	12/19/2000
Sampled:	12/15/2000 13:45	QC-Batch:	2000/12/19-01.22
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
pH	7.0	0.0	SU	1.00	12/19/2000	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 9040B
Prep Method: 9040B

Batch QC Report
pH

Method Blank	**Water**	**QC Batch # 2000/12/19-01.22**
MB: 2000/12/19-01.22-001		Date Extracted: 12/19/2000

Compound	Result	Rep.Limit	Units	Analyzed	Flag
pH	7.05		SU	12/19/2000	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 160.1
Prep Method: 160.1

Batch QC Report
Total Dissolved Solids (TDS)

Method Blank | **Water** | **QC Batch # 2000/12/20-01.28**

MB: 2000/12/20-01.28-001 | Date Extracted: 12/19/2000

Compound	Result	Rep.Limit	Units	Analyzed	Flag
TDS	ND	10	mg/L	12/20/2000	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0340

To: **URS -San Francisco**

Attn: Ryan Seelbach

Test Method: 160.1

Prep Method: 160.1

Batch QC Report

Total Dissolved Solids (TDS)

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/12/20-01.28**

LCS: 2000/12/20-01.28-002 Extracted: 12/19/2000 Analyzed 12/20/2000

LCSD: 2000/12/20-01.28-003 Extracted: 12/19/2000 Analyzed 12/20/2000

Compound	Conc. [mg/L]		Exp.Conc. [mg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
TDS	929	952	1000	1000	92.9	95.2	2.4	80-120	20		

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0340

Total Extractable Petroleum Hydrocarbons (TEPH)

URS -San Francisco

221 Main Street #600
San Francisco, CA 94105

Attn: Ryan Seelbach

Phone: (415) 243-3837 Fax: (415) 882-9261

Project #: 00188.248.043

Project: Sears Oakland

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
FOMW-2	Water	12/15/2000 14:45	1
FOMW-3	Water	12/15/2000 13:45	2
FOMW-1	Water	12/15/2000 15:40	3
FOMW-4	Water	12/15/2000	4

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2000-12-0340

Total Extractable Petroleum Hydrocarbons (TEPH)

URS -San Francisco

221 Main Street #600
San Francisco, CA 94105

Attn: Ryan Seelbach

Phone: (415) 243-3837 Fax: (415) 882-9261

Project #: 00188.248.043

Project: Sears Oakland

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
FOMW-2	Water	12/15/2000 14:45	1
FOMW-3	Water	12/15/2000 13:45	2
FOMW-1	Water	12/15/2000 15:40	3
FOMW-4	Water	12/15/2000	4

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8015M
Prep Method: 3510/8015M

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID:	**FOMW-2**	Lab Sample ID:	**2000-12-0340-001**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	12/18/2000 15:56
Sampled:	12/15/2000 14:45	QC-Batch:	2000/12/18-04.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	12/19/2000 15:13	
Motor Oil	ND	500	ug/L	1.00	12/19/2000 15:13	
Bunker-C	ND	50	ug/L	1.00	12/19/2000 15:13	
Surrogate(s)						
o-Terphenyl	109.4	60-130	%	1.00	12/19/2000 15:13	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8015M
Prep Method: 3510/8015M

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID:	**FOMW-3**	Lab Sample ID:	**2000-12-0340-002**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	12/18/2000 15:56
Sampled:	12/15/2000 13:45	QC-Batch:	2000/12/18-04.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	100	50	ug/L	1.00	12/19/2000 15:13	ndp
Motor Oil	ND	500	ug/L	1.00	12/19/2000 15:13	
Bunker-C	ND	50	ug/L	1.00	12/19/2000 15:13	
Surrogate(s)						
o-Terphenyl	98.7	60-130	%	1.00	12/19/2000 15:13	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8015M
Prep Method: 3510/8015M

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID:	**FOMW-1**	Lab Sample ID:	**2000-12-0340-003**
Project:	00188.248.043 Sears Oakland	Received:	12/18/2000 14:05
		Extracted:	12/18/2000 15:56
Sampled:	12/15/2000 15:40	QC-Batch:	2000/12/18-04.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	260	50	ug/L	1.00	12/20/2000 08:34	ndp
Motor Oil	ND	500	ug/L	1.00	12/20/2000 08:34	
Bunker-C	ND	50	ug/L	1.00	12/20/2000 08:34	
Surrogate(s)						
o-Terphenyl	98.2	60-130	%	1.00	12/20/2000 08:34	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8015M
Prep Method: 3510/8015M

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID: **FOMW-4**
Project: 00188.248.043
Sears Oakland
Sampled: 12/15/2000
Matrix: Water

Lab Sample ID: **2000-12-0340-004**
Received: 12/18/2000 14:05
Extracted: 12/18/2000 15:56
QC-Batch: 2000/12/18-04.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	370	50	ug/L	1.00	12/20/2000 09:21	ndp
Motor Oil	ND	500	ug/L	1.00	12/20/2000 09:21	
Bunker-C	ND	50	ug/L	1.00	12/20/2000 09:21	
Surrogate(s)						
o-Terphenyl	96.7	60-130	%	1.00	12/20/2000 09:21	

To: **URS -San Francisco**
Attn.: Ryan Seelbach

Test Method: 8015M
Prep Method: 3510/8015M

Batch QC Report
Total Extractable Petroleum Hydrocarbons (TEPH)

Method Blank **Water** **QC Batch # 2000/12/18-04.10**

MB: 2000/12/18-04.10-001 Date Extracted: 12/18/2000 15:56

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	12/18/2000 18:12	
Motor Oil	ND	500	ug/L	12/18/2000 18:12	
Bunker-C	ND	50	ug/L	12/18/2000 18:12	
Surrogate(s)					
o-Terphenyl	95.5	60-130	%	12/18/2000 18:12	

To: **URS -San Francisco**
Attn: Ryan Seelbach

Test Method: 8015M
Prep Method: 3510/8015M

Batch QC Report

Total Extractable Petroleum Hydrocarbons (TEPH)

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/12/18-04.10**

LCS: 2000/12/18-04.10-002 Extracted: 12/18/2000 15:56 Analyzed 12/18/2000 18:52
LCSD: 2000/12/18-04.10-003 Extracted: 12/18/2000 15:56 Analyzed 12/18/2000 19:32

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Diesel	913	1140	1250	1250	73.0	91.2	22.2	60-130	25		
Surrogate(s)											
o-Terphenyl	21.9	25.8	20.0	20.0	109.5	129.0		60-130			

To: **URS -San Francisco**
Attn: Ryan Seelbach

Test Method: 8015M
Prep Method: 3510/8015M

Legend & Notes

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte Flags

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

Cyto Culture
ENVIRONMENTAL
BIOTECHNOLOGY
CytoCulture International Inc.
249 Tewksbury Avenue
Pt. Richmond, CA 94801 USA

Dames & Moore / URS Corp.
Project No. 2000-12-0340
Project Manager: Afsanet Salmipour
1220 Quarry Lane Pleasanton, Ca 94556-4756

Reporting Date: December 28, 2000
CytoCulture Lab Login: 00-86
Project Description: Sears-Oakland
Tel: 925/484-1919 Fax:925/484-1096

SAMPLES: Two water samples on ice were received on 12/19/00. The samples were assayed the same day and stored at 4°C. See the attached chain of custody form from ChromaLab, Inc..

Aerobic Hydrocarbon-Degrading and Total Heterotrophic Bacteria Enumeration Assays

ANALYSIS REQUEST: Bacterial enumeration for aerobic petroleum hydrocarbon-degraders (broad range petroleum hydrocarbons derived from diesel and gasoline) and total heterotrophic plate counts by method 9215A (HPC) / Standard Methods 9215B modified.

CARBON SOURCE: Sterilized Chevron No. 2 diesel and gasoline were dissolved into agar plates as the sole carbon and energy sources for the growth of hydrocarbon-degrading aerobic bacteria. Heterotrophic plates were made up with standard methods total plate count agar (Difco) containing a wide range of carbon sources derived from yeast extract, tryptone, pancreatic digest of casein and glucose.

PROTOCOLS:

Hydrocarbon Degraders: Sterile agar plates (100 x 15 mm) were prepared with minimal salts medium at pH 6.8 with noble agar and hydrocarbons, without any other carbon sources or nutrients added. Triplicate plates were inoculated with 1.0 ml of each sample, or log dilutions of the sample, at 10^0, 10^{-1}, 10^{-2} and 10^{-3}. Hydrocarbon plates were counted 12 days after incubation at 30 Deg C. The plate count data are reported as colony forming units (cfu) per milliliter (ml). Each bacteria population value represents a statistical average of the plate count data obtained with inoculations for two of the four log dilutions tested.

Heterotrophs: Sterile agar plates (100 x 15 mm) were prepared with minimal salts medium and 2.35% heterotrophic plate count agar at pH 6.8 without any other carbon sources or nutrients added. Plates were inoculated with 1.0 ml of water sample, or log dilutions of the sample, in triplicate at sample dilutions of 10^0, 10^{-1},10^{-2}, and 10^{-3}. The heterotroph plates were counted after 3 days of incubation at 30 Deg. C. The plate count data are reported as colony forming units (cfu) per milliliter (ml) of sample. Each enumeration value represents a statistical average of two of the four log dilutions inoculated in plates.

Aerobic
Hydrocarbon-Degrading and Heterotrophic Bacteria Enumeration Results

CLIENT SAMPLE NUMBER	SAMPLE DATE	HYDROCARBON DEGRADERS (CFU/ML)	TARGET HYDROCARBONS TESTED	TOTAL HETEROTROPHS (CFU/ML)
FOMW-2	12/15/00	5.5×10^2	Gasoline + diesel	1.0×10^3
FOMW-3	12/15/00	1.2×10^3	Gasoline + diesel	1.8×10^3
Sterile water	12/19/00	zero	Gasoline + diesel	zero
Air control	12/19/00	zero	Gasoline + diesel	zero
Positive control	12/19/00	6.8×10^9	Gasoline + diesel	1.1×10^{10}

A hydrocarbon-degrading bacteria positive control sample was run concurrently with these samples using a mixed flask culture of bacteria from Northern California contaminated groundwater sites.

CytoCulture is available on a consulting basis to assist in the interpretation of these data and their application to field bioremediation protocols.

Wendy Fulkerson
Laboratory Technician

Randall von Wedel, Ph.D.
Principal Biochemist

C:\cytolab\lab reports\D&M-URS\water 00-86

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # L354-11

Date: 12/27/00

Chromalab
2220 Quarry Lane
Pleasanton CA 94566-4756

Project: 2000-12-0340

PO#

Date Rec'd: 12/19/00
Date Started: 12/19/00
Date Completed: 12/27/00

Date Sampled: 12/15/00
Time:
Sampler:

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
OMW-2	L312682	10	310.1	Total Alkalinity	190	mg/L
		1.0	300.0	Nitrate (NO3)	7.8	mg/L
		1.0	300.0	Sulfate	30	mg/L
OMW-3	L312683	10	310.1	Total Alkalinity	190	mg/L
		1.0	300.0	Nitrate (NO3)	3.2	mg/L
		1.0	300.0	Sulfate	30	mg/L

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

QC REPORT

Report# L354-11

Dates Analyzed 12/19/00-12/27/00

Chromalab
1220 Quarry Lane
Pleasanton CA 94566-4756

Analyte	Batch #	Method	MS % Recovery	MSD % Recovery	RPD	Blank
Total Alkalinity	I12908	310.1	96.7	95.0	1.7	ND
Nitrate (NO3)	I13050	300.0	104.0	103.6	0.4	ND
Nitrate	I13054	300.0	105.6	108.0	2.2	ND

Chain of Custody 2000-12-0340-1

Date Shipped: 12/19/2000

C354-11

From:

ChromaLab, Inc. (CL)
1220 Quarry Lane
Pleasanton, CA 94566-4756

Project Manager:	Afsaneh Salimpour
Phone:	(925) 484-1919 Ext: 107
Fax:	(925) 484-1096
Email:	asalimpour@chromalab.com

To:

GeoAnalytical Labs
1405 Kansas Avenue
Modesto, CA 95351

Phone:	(209) 572-0900
Fax:	(209) 572-0916
Contact:	Ramiro Salgado
Phone:	(209) 572-0900

CL Submission #: **2000-12-0340**
CL PO #:

Project #: 00188.248.043
Project Name: Sears Oakland

Client Sample ID / Analysis	CL#	Sampled	Matrix / Method	Due
FOMW-2	001	12/15/2000 14:45	Water	1312682
Subcontract - Total Alkalinity			310.1	12/27/2000 17:00
Subcontract - Nitrate (1)			300/352.1	12/27/2000 17:00
Subcontract - Sulfate			300/375.4	12/27/2000 17:00
FOMW-3	002	12/15/2000 13:45	Water	1312683
Subcontract - Total Alkalinity			310.1	12/27/2000 17:00
Subcontract - Nitrate (1)			300/352.1	12/27/2000 17:00
Subcontract - Sulfate			300/375.4	12/27/2000 17:00

PLEASE INCLUDE QC WITH FAXED AND HARD-COPY RESULTS

	1.	2.	3.
RELINQUISHED BY:	Denise Harrington		
Signature / Time	D. Harrington 1300		
Printed Name / Date	Chromalab 12/19/00		
Company			
RECEIVED BY:	[signature] 1300		
Signature / Time	[illegible] 12/19/00		
Printed Name / Date	[illegible]		
Company	CL		

To: [illegible]

CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1094)

1220 Quarry Lane • Pleasanton, California 94566-4756
(925) 484-1919 • Fax (925) 484-1096

#786 Reference #: 86

Chain of Custody

DATE _____ PAGE _____ OF _____

PROJ. MGR Afsaneh Salimpour
COMPANY Chromalab
ADDRESS DAMES & MOORE/LUCS

SAMPLERS (SIGNATURE) (PHONE NO.)
(FAX NO.)

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH-(EPA 8015,8020) ☐ Gas w/ ☐ BTEX ☐MTBE	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M) ☐Diesel ☐M.O. ☐Other	PURGEABLE HALOCARBONS, (EVOCs) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMIVOLATILES (EPA 8270)	Oil & Grease ☐Petrol ☐Total ☐1664		☐ PESTICIDES(EPA 8080) ☐ PCB'S (EPA 8080)	PNA's by ☐ 8270 ☐ 8310	☐ Spec. Cond. ☐ TSS ☐ TDS	LUFT METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD	☐ W.E.T. (STLC) ☐ TCLP	☐ Hexavalent Chromium ☐ pH (24 hr hold time for H20)	Hydrogen degrader + heterotrophic (bulk oil)			NUMBER OF CONTAINERS
FOMW-2	12/15		wat																			X			
FOMW-3	↓		↓																			X			

PROJECT INFORMATION

PROJECT NAME: Sears Oakland
PROJECT NUMBER: 2000-12-0340
P.O. #

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	
HEAD SPACE	
TEMPERATURE	
CONFORMS TO RECORD	

TAT	STANDARD 5-DAY			24	48	72	OTHER

SPECIAL INSTRUCTIONS/COMMENTS:
Report: ☐ Routine ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ Electronic Report

RELINQUISHED BY 1	RELINQUISHED BY 2	RELINQUISHED BY 3
Afsaneh Salimpour (SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
Afsaneh Salimpour (PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
Chromalab 12/19/00 (COMPANY)	(COMPANY)	(COMPANY)
RECEIVED BY 1	**RECEIVED BY 2**	**RECEIVED BY (LABORATORY) 3**
Wendy Fulkerson 1530 (SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
Wendy Fulkerson 12/19/00 (PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
Cytoculture (COMPANY)	(COMPANY)	(LAB)

Reference #: ______

Chain of Custody

CHROMALAB, INC.

1220 Quarry Lane • Pleasanton, California 94566-4756
(925) 484-1919 • Fax (925) 484-1096

Environmental Services (SDB) (DOHS 1094)

DATE ______ PAGE 1 OF 1

PROJ. MGR. RYAN SEEBACH
COMPANY URS
ADDRESS 221 Main St 7th Fl
SF, CA 94105
SAMPLERS (SIGNATURE) [signature]
(PHONE NO.) 415-243-3837
(FAX NO.)

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH-(EPA 8015,8020) ☐ Gas w/ ☐ BTEX ☐ MTBE	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M) ☐ Diesel ☐ M.O. ☐ Other	PURGEABLE HALOCARBONS (HVOCs) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMIVOLATILES (EPA 8270)	TOTAL OIL AND GREASE (SM 5520 B+F, E+F)	Dissolved Methane by headspace	☐ PESTICIDES (EPA 8080) ☐ PCB'S (EPA 8080)	PNA's by ☐ 8270 ☐ 8310	☐ Spec. Cond. ☐ TSS ☐ TDS	LUFT METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD	☐ W.E.T. (STLC) ☐ TCLP	☐ Hexavalent Chromium ☐ pH (24 hr hold time for H2O)	Total Alkalinity 310.1 Sulfate, nitrate	TDS 160.1	Cyto Culture	NUMBER OF CONTAINERS
								X		X			X								X	X	X	X	
Fomw-2	12-18-00	1445						X		X			X								X	X	X	X	
Fomw-3	12-18-00	1345						X		X															
Fomw-1	12-15-00	1540						X		X															
FOMW-4	12-15-00							X		X															

Culture to Analyze for Hydrocarbon degraders & Heterotrophs (Bunker Oil)

Post-it® Fax Note 7671
Date 3.21.01 | # of pages ▶ 1
To RYAN SEEBACH | From REBECCA GRANE
Co./Dept. | Co.
Phone # | Phone # 714.648.2857
Fax # 0188.248.5150 | Fax # 714.667.7147

Added for Peterson, 12.20.01

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	
HEAD SPACE	
TEMPERATURE	
CONFORMS TO RECORD	

...TION: 10 day | 24 | 48 | 72 | OTHER

...MENTS:
☐ Level 3 ☐ Level 4 ☐ Electronic Report
10.233 0102
Ar TEPH on FOMW-1 only

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
[signature] 1225 (SIGNATURE) (TIME)	595 MIKE (SIGNATURE) (TIME)	(SIGNATURE) (TIME)
RYAN SEEBACH (PRINTED NAME) (DATE)	WORLD COURIER (PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
URS 12/18/00 (COMPANY)	(COMPANY)	(COMPANY)

RECEIVED BY 1.	RECEIVED BY 2.	RECEIVED BY (LABORATORY) 3.
595 MIKE (SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
WORLD COURIER (PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
121800 1234 (COMPANY)	(COMPANY)	(LAB)

APPENDIX B

URS DATA VALIDATION REPORTS

LEVEL III Data Validation Report

PROJECT: Sears Oakland, Oakland, CA

LABORATORY: Chromalab, Pleasanton, CA

LAB NUMBER: 2000-12-0340

SAMPLES: FOMW-2, FOMW-2

MATRIX: Water

Analysis	Total Dissolved Solids (TDS) 160.1
Holding Time	✓
MS/MSD	✓
LCS (Blank Spike)	NA
Method Blanks	✓
Duplicates	NA
Trip/Field/Equipment Blanks	NA
Reporting Limits	✓

✓ – QC criteria were met.

Notes: None.

Summary:

Based on this Level III validation, these data are usable for their intended purpose. None of these data were qualified or rejected.

LEVEL III Data Validation Report

PROJECT: Sears Oakland, Oakland, CA

LABORATORY: Chromalab, Pleasanton, CA

LAB NUMBER: 2000-12-0340

SAMPLES: FOMW-2, FOMW-3, FOMW-1, FOMW-4

MATRIX: Water

Analysis	Diesel, Motor Oil 8015M	Volatile Organics 8260
Holding Time	✓	✓
Surrogate Recovery	✓	✓
MS/MSD	NA	NA
LCS (Blank Spike)	✓	✓
Method Blanks	✓	✓
Duplicates	NA	NA
Trip/Field/Equipment Blanks	NA	NA
Reporting Limits	✓	✓
Chromatography	Note 1	NA

✓ – QC criteria were met.

Notes: 1. In the case of samples FOMW-3, FOMW-1, and FOMW-4, the sample chromatograms in the diesel range do not resemble the diesel standard. Consequently, all reported concentrations of diesel were flagged "J," estimated.

Summary:

Based on this Level III validation, these data are usable, as qualified, for their intended purpose. None of these data were rejected.

LEVEL III Data Validation Report

PROJECT: Sears Oakland, Oakland, CA

LABORATORY: Chromalab, Pleasanton, CA

LAB NUMBER: 2000-12-0340

SAMPLES: FOMW-2, FOMW-3

MATRIX: Water

Analysis	Methane 3810M
Holding Time	✓
MS/MSD	NA
LCS (Blank Spike)	✓
Method Blanks	✓
Duplicates	NA
Trip/Field/Equipment Blanks	NA
Reporting Limits	✓

✓ – QC criteria were met.

Notes: None.

Summary:

Based on this Level III validation, these data are usable for their intended purpose. None of these data were qualified or rejected.

LEVEL III Data Validation Report

PROJECT: Sears Oakland, Oakland, CA

LABORATORY: Chromalab, Pleasanton, CA

LAB NUMBER: 2000-12-0340

SAMPLES: FOMW-2, FOMW-2

MATRIX: Water

Analysis	Total Dissolved Solids (TDS) 160.1
Holding Time	✓
MS/MSD	✓
LCS (Blank Spike)	NA
Method Blanks	✓
Duplicates	NA
Trip/Field/Equipment Blanks	NA
Reporting Limits	✓

✓ – QC criteria were met.

Notes: None

Summary:

Based on this Level III validation, these data are usable for their intended purpose. None of these data were qualified or rejected.