



FLUOR DANIEL GTI

TP 5710  
# 1630

## Transmittal Letter

Date: October 13, 1998

To: Mr. Dale Klettke, CHMM

Company: Alameda County Health Care Services Agency

Address: 1131 Harbor Bay Parkway, Suite 250

City: Alameda State/Zip: CA 94502-6577

We are sending via:

Courier     U.S. Mail     UPS     Overnight Mail     Other \_\_\_\_\_

The following:

Report                       Shop Drawings                       Samples  
 Proposal                       Specifications                       Other \_\_\_\_\_

Transmitted as checked:

Approved                       For Approval                       Approved as Noted  
 For Correction                       For Your Use                       As Requested  
 For Comments                       For Your Records                       For Distribution

Comments:

We are sending you herewith the Third Quarter 1998 Groundwater Monitoring and Sampling Report dated October 15, 1998, for the Sears Store No. 1039 located at 1911 Telegraph Avenue, in Oakland, California. If you have comments or questions, please contact me at (925) 370-3990 extension 222.

Sincerely,  
**Fluor Daniel GTI, Inc.**

*Ned Borglin*

Ned Borglin  
 Project Coordinator

c: Mr. Scott M. DeMuth, Sears, Roebuck and Co.  
 Mr. Russ Zora, Fluor Daniel GTI, Central Files  
 Project Files





**FLUOR DANIEL GTI**

55-D1630

ENVIRONMENTAL  
PROTECTION  
98 OCT 15 AM 10:05

October 15, 1998

Mr. Dale Klettke, CHMM  
Hazardous Materials Specialist  
Alameda County, Health Care Services Agency  
Environmental Health Services Dept.  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Subject:** Third Quarter 1998, Groundwater Monitoring and Sampling Report  
Sears 1039; 1911 Telegraph Avenue, Oakland, California  
Fluor Daniel GTI Project 103231

Dear Mr. Klettke:

On behalf of Sears, Roebuck and Co., Fluor Daniel GTI, Inc., presents the quarterly groundwater monitoring and sampling data collected on August 10, 1998, from the above referenced site. The seven groundwater monitoring wells were gauged to determine depth to groundwater and to check for the presence of separate-phase petroleum hydrocarbons. Separate-phase hydrocarbons were not detected in the monitoring wells. A potentiometric surface map is provided in Attachment 1, Figure 1. A summary of monitoring data is provided in Attachment 2, Table 1.

After measuring depth to water, all monitoring wells were purged and sampled. Groundwater monitoring and sample collection protocol and field data sheets are provided in Attachment 3. The groundwater samples were analyzed for dissolved benzene, toluene, ethylbenzene and total xylenes (BTEX), methyl tert-butyl ether (MTBE), and total petroleum hydrocarbons as gasoline (TPH-g) using EPA Methods 8020/modified 8015, and chlorinated hydrocarbons using EPA Method 8010. Additionally, wells MW-4 and MW-6 were analyzed for total oil and grease (SM5520 C&F).

Static groundwater elevations for the third quarter 1998 ranged from 76.88 to 78.36 feet above mean sea level. Groundwater elevations have decreased by 0.5 foot since second quarter 1998 (May 19, 1998). The apparent groundwater flow is to the east at an average hydraulic gradient of 0.01 ft/ft, and is consistent with previous quarterly data.

Results of quarterly sampling indicated detectable concentrations of BTEX in monitoring wells MW-2, MW-4, MW-5, and MW-7. Monitoring wells MW-2, MW-4, MW-5, and MW-7 contained detectable concentrations of TPH-g. MTBE was present in monitoring wells MW-2, MW-4, and MW-5. A summary of the groundwater analytical results is provided in Attachment 2, Table 2. A distribution map of dissolved benzene, TPH-g, and MTBE concentrations is provided in Attachment 1, Figure 2. Hydrograph and detectable concentration versus time data are illustrated in Graphs 1 through 7 (Attachment 4).

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Hydrocarbon concentrations below detection limits, are not shown on the graphs. Laboratory reports and chain-of-custody documents are provided in Attachment 5.

Increasing dissolved hydrocarbon concentrations in downgradient monitoring well MW-7 prompted a site assessment to further characterize the groundwater, which was performed on September 9, 1998. Results of the findings will be submitted under separate cover.

If you have comments or questions, please contact me at (925) 370-3990 extension 266.

Sincerely,  
Fluor Daniel GTI, Inc.



Melissa Gossell  
West Zone Project Manager

Attachments:

- 1) Figures
- 2) Tables
- 3) Groundwater Monitoring and Sample Collection Protocol and Field Data Sheets
- 4) Graphs
- 5) Laboratory Reports and Chain-of-Custody Documents

cc: Mr. Scott M. DeMuth, Sears, Roebuck and Co.  
Central Files, Lenexa, Kansas

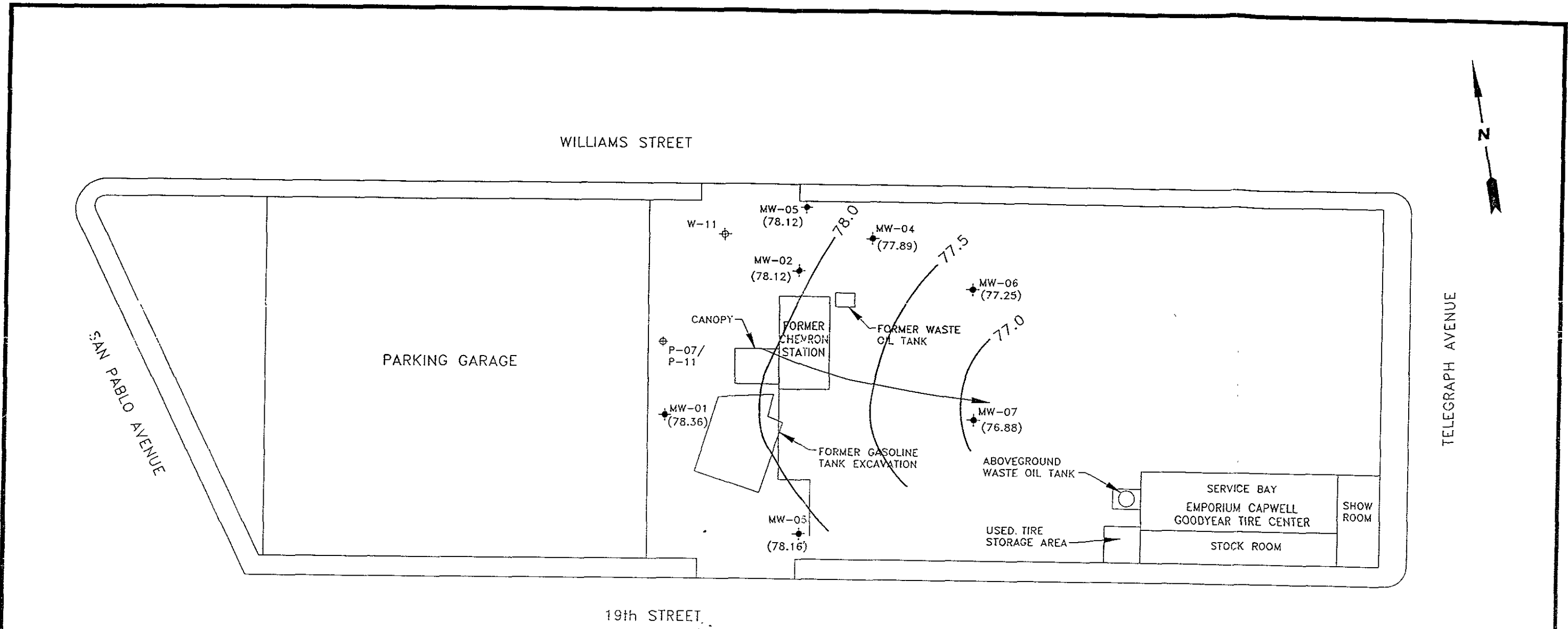


**Attachment 1**

**Figures**

1. Potentiometric Surface Map Gauged 8/10/98
2. Concentrations of Benzene, TPH as Gasoline, & MTBE in Groundwater (Sampled 8/10/98)





LEGEND

- ◆ MONITORING WELL
- ⊕ SOIL PROBE
- ( ) POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- POTENTIOMETRIC SURFACE CONTOUR; INTERVAL = 0.5 FT
- GROUNDWATER FLOW DIRECTION AND  
i=0.01 AVERAGE GRADIENT (ft/ft)

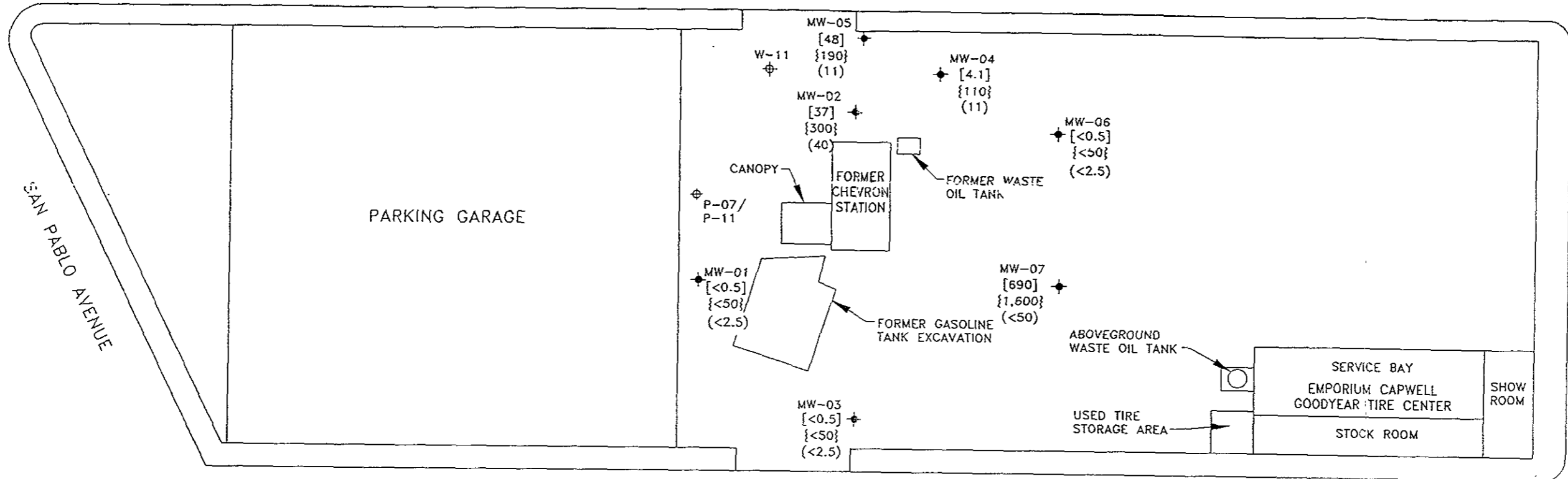
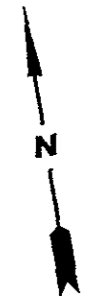
FLUOR DANIEL GTI 



POTENTIOMETRIC SURFACE MAP  
GAUGED 8/10/98

CLIENT: SEARS, ROEBUCK & CO. SITE NO. 1039			
LOCATION: 1901-1911 TELEGRAPH AVENUE OAKLAND, CALIFORNIA			
ACAD FILE: PSM81098		PROJECT NO.: 103231	
REV.: 1			
DES.: BP	DET.: VR	DATE: 8/20/98	FIGURE: 1
PM:		PE/RC:	

WILLIAMS STREET



PARKING GARAGE

MW-05

W-11

MW-04

MW-02

MW-06

CANOPY

FORMER CHEVRON STATION

FORMER WASTE OIL TANK

P-07/  
P-11

MW-01

MW-07

FORMER GASOLINE TANK EXCAVATION

ABOVEGROUND WASTE OIL TANK

MW-03

USED TIRE STORAGE AREA

SERVICE BAY  
EMPORIUM CAPWELL  
GOODYEAR TIRE CENTER

SHOW ROOM

STOCK ROOM

19th STREET

TELEGRAPH AVENUE

SAN PABLO AVENUE

LEGEND

- ◆ MONITORING WELL
- ⊕ SOIL PROBE
- [ ] BENZENE CONCENTRATION [ug/l]
- { } TPH-AS-GASOLINE CONCENTRATIONS {ug/l}
- ( ) METHYL TERT-BUTYL ETHER (MTBE) CONCENTRATIONS (ug/l)

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CONCENTRATIONS OF BENZENE, TPH-AS-GASOLINE & MTBE IN GROUNDWATER (SAMPLED 8/10/98)

CLIENT: SEARS, ROEBUCK & CO.  
SITE NO. 1039

LOCATION: 1901-1911 TELEGRAPH AVENUE  
OAKLAND, CALIFORNIA

ACAD FILE: TPH81098

PROJECT NO.: 103231

REV.: 1

DES: BP DET.: VR DATE: 9/8/98

PM: PE/RC:

FIGURE: 2

**Attachment 2**

**Tables**

1. Summary of Historical Groundwater Monitoring Data
2. Summary of Historical Groundwater Analyses



**TABLE 1**  
**Summary of Historical Groundwater Monitoring Data**  
 (All measurements are in feet; all elevations are in feet above mean sea level)

Sears Store 1039  
 1911 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-1	94.34	06/12/96	16.21	--	--	78.13
		09/05/96	16.89	--	--	77.45
		12/03/96	17.07	--	--	77.27
		02/27/97	15.55	--	--	78.79
		06/10/97	16.46	--	--	77.88
		08/27/97	16.97	--	--	77.37
		11/26/97	17.24	--	--	77.10
		02/11/98	16.07	--	--	78.27
		05/19/98	15.43	--	--	78.91
		08/10/98	15.98	--	--	78.36
MW-2	93.94	06/12/96	16.01	--	--	77.93
		09/05/96	16.66	--	--	77.28
		12/03/96	16.20	--	--	77.74
		02/27/97	14.46	--	--	79.48
		06/10/97	14.00	--	--	79.94
		08/27/97	16.55	--	--	77.39
		11/26/97	16.86	--	--	77.08
		02/11/98	15.85	--	--	78.09
		05/19/98	15.32	--	--	78.62
		08/10/98	15.82	--	--	78.12
MW-3	95.67	06/12/96	17.56	--	--	78.10
		09/05/96	18.32	--	--	77.35
		12/03/96	18.57	--	--	77.10
		02/27/97	17.43	--	--	78.24
		06/10/97	18.12	--	--	77.55
		08/27/97	18.47	--	--	77.20
		11/26/97	18.70	--	--	76.97
		02/11/98	17.76	--	--	77.91
		05/19/98	16.99	--	--	78.68
		08/10/98	17.51	--	--	78.16
MW-4	91.99	06/12/96	14.21	--	--	77.78
		09/05/96	14.83	--	--	77.16
		12/03/96	13.99	--	--	78.00
		02/27/97	12.44	--	--	79.55
		06/10/97	14.20	--	--	77.79
		08/27/97	14.62	--	--	77.37
		11/26/97	15.00	--	--	76.99
		02/11/98	14.10	--	--	77.89
		05/19/98	13.57	--	--	78.42
		08/10/98	14.10	--	--	77.89





**TABLE 1**  
**Summary of Historical Groundwater Monitoring Data**  
 (All measurements are in feet; all elevations are in feet above mean sea level)

Sears Store 1039  
 1911 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-5	92.09	06/12/96	14.13	--	--	77.96
		09/05/96	14.77	--	--	77.32
		12/03/96	13.99	--	--	78.10
		02/27/97	12.08	--	--	80.01
		06/10/97	16.00	--	--	76.09
		08/27/97	14.55	--	--	77.54
		11/26/97	14.95	--	--	77.14
		02/11/98	13.97	--	--	78.12
		05/19/98	13.52	--	--	78.57
		08/10/98	13.97	--	--	78.12
MW-6	92.15	06/12/96	14.99	--	--	77.16
		09/05/96	15.50	--	--	76.65
		12/03/96	15.07	--	--	77.08
		02/27/97	14.14	--	--	78.01
		06/10/97	15.30	--	--	76.85
		08/27/97	15.42	--	--	76.73
		11/26/97	15.70	--	--	76.45
		02/11/98	14.87	--	--	77.28
		05/19/98	14.32	--	--	77.83
		08/10/98	14.90	--	--	77.25
MW-7	93.36	06/12/96	16.56	--	--	76.80
		09/05/96	17.10	--	--	76.26
		12/03/96	17.12	--	--	76.24
		02/27/97	16.20	--	--	77.16
		06/10/97	17.00	--	--	76.36
		08/27/97	17.18	--	--	76.18
		11/26/97	17.40	--	--	75.96
		02/11/98	16.65	--	--	76.71
		05/19/98	15.96	--	--	77.40
		08/10/98	16.48	--	--	76.88

Notes:  
 "--" = indicates no datum for the cell, including "product not detected"



**TABLE 2**  
**Summary of Historical Groundwater Analyses**  
 (All results expressed in parts per billion)

Sears Store 1039  
 1911 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	MTBE	Benzene	Toulene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TCE	1,2-DCA	cis-1,2 DCE	1,1-DCE	OIL/ GREASE	PCE
MW-1	10/01/95	--	ND	ND	ND	ND	<50	ND	ND	--	--	--	9.9
	01/01/96	--	ND	ND	ND	ND	<50	14	ND	--	--	--	9.9
	06/12/96	--	<0.5	1.4	<0.5	<2	<50	<0.5	<0.5	--	--	--	12
	09/05/96	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	--	--	--	12
	12/03/96	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5
	02/27/97	<5.0	<0.5	<0.5	<0.5	<2	<50	1.3	<0.5	<0.5	<0.5	--	31
	06/10/97	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	19
	08/27/97	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	16
	11/26/97	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	17
	02/11/98	<5.0	<0.5	<0.5	<0.5	<3	<50	<0.5	<0.5	<0.5	<0.5	--	20
	05/19/98	<5.0	<0.5	<0.5	<0.5	<4	<50	<0.5	<0.5	<0.5	<0.5	--	14
08/10/98	<2.5	<0.5	<0.5	<0.5	<0.5	<5	<50	<0.5	<0.5	<0.5	--	14	
MW-2	10/01/95	--	1,200	5.4	41	5.9	2,900	40	280	--	--	--	ND
	01/01/96	--	1,100	11.0	100	6.9	780	38	270	--	--	--	ND
	06/12/96	--	890	7.0	56	10	3,600	40	160	--	--	--	<3
	09/05/96	<5.0	350	3.0	17	10	2,100	29	55	1.9	55	--	<0.5
	12/03/96	40	230	2.4	7.8	7	1,100	20	86	7	<0.5	--	<0.5
	02/27/97	12	210	2.2	6	3	1,000	25	43	<0.5	<0.5	--	0.8
	06/10/97	<30	510	3.0	6	<10	1.8	19	47	4.9	<0.5	--	1
	08/27/97	11	51	<0.5	1.4	<2	450	16	29	4.2	<0.5	--	0.5
	11/26/97	<30	380	5.0	9	12	1,200	13	29	3.1	<0.5	--	0.6
	02/11/98	8	310	4.0	9.8	9	1,100	16	<0.5	2.6	0.6	--	<0.5
05/19/98	20	320	2.1	9.9	8	1,200	14	47	1.6	<0.5	--	0.5	
08/10/98	40	37	1.0	1.2	0.9	300	11	30	2.4	<0.5	--	<0.5	
MW-3	10/01/95	--	ND	ND	ND	ND	<50	ND	ND	--	--	--	ND
	01/01/96	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	ND
	06/12/96	--	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	--	--	<0.5	<0.5
	09/05/96	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	--	--	<0.5	<0.5
	12/03/96	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	2.3
	02/27/97	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	6.3
	06/10/97	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	5.9
	08/27/97	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	5.8
	11/26/97	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	7.9
	02/11/98	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	7.9
	05/19/98	<5.0	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	5.5
08/10/98	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	--	<0.5	



**TABLE 2**  
**Summary of Historical Groundwater Analyses**  
**(All results expressed in parts per billion)**

Sears Store 1039  
 1911 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	MTBE	Benzene	Toulene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TCE	1,2-DCA	cis-1,2 DCE	1,1-DCE	OIL/GREASE	PCE
MW-4	10/01/95	--	4.1	ND	ND	ND	<50	ND	ND	--	--	--	ND
	01/01/96	--	5.8	ND	ND	ND	<50	ND	ND	--	--	--	ND
	06/12/96	--	11	<0.5	<0.5	<2	320	<0.5	<0.5	--	--	<0.5	<0.5
	09/05/96	--	5.6	<0.5	<0.5	<2	70	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	12/03/96	15	11	<0.5	<0.5	<2	270	<0.5	0.9	<0.5	<0.5	<0.5	<0.5
	02/27/97	<5.0	3.1	<0.5	<0.5	<2	190	<0.5	<0.5	<0.5	<0.5	<500	<0.5
	06/10/97	<5.0	11	<0.5	<0.5	<2	200	<0.5	<0.5	<0.5	<0.5	--	<0.5
	08/27/97	<5.0	9.6	<0.5	<0.5	<2	170	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	11/26/97	<5.0	6.7	<0.5	<0.5	<2	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	02/11/98	<5.0	8.4	<0.5	<0.5	<2	110	<0.5	<0.5	<0.5	<0.5	<500	<0.5
	05/19/98	7	4.6	<0.5	<0.5	<2	110	<0.5	<0.5	<0.5	<0.5	<500	<0.5
08/10/98	11	4.1	<0.5	<0.5	<0.5	110	<0.5	<0.5	<0.5	<0.5	9,600	<0.5	
MW-5	10/01/95	--	86	ND	ND	ND	260	ND	ND	--	--	--	ND
	01/01/96	--	160	3.6	ND	ND	180	ND	ND	--	--	--	ND
	06/12/96	--	54	1.1	<0.5	<2	260	<0.5	<0.5	--	--	--	<0.5
	09/05/96	<5.0	22	1.0	<0.5	<2	160	<0.5	<0.5	--	--	--	<0.5
	12/03/96	6	18	0.6	<0.5	<2	170	<0.5	<0.5	<0.5	<0.5	--	<0.5
	02/27/97	<5	74	2.0	<0.5	<2	230	<0.5	<0.5	<0.5	<0.5	--	<0.5
	06/10/97	<30	490	19.0	<3.0	<10	1,200	<0.5	<0.5	<0.5	<0.5	--	<0.5
	08/27/97	<5.0	100	4.6	<0.5	<2	340	<0.5	<0.5	<0.5	<0.5	--	<0.5
	11/26/97	<5.0	78	4.5	0.6	<2	400	<0.5	<0.5	<0.5	<0.5	--	<0.5
	02/11/98	<5.0	62	2.9	<0.5	<2	320	<0.5	<0.5	<0.5	<0.5	--	<0.5
	05/19/98	<5.0	97	2.6	<0.5	<2	330	<0.5	<0.5	<0.5	<0.5	--	<0.5
08/10/98	11	48	1.9	<0.5	<0.5	190	<0.5	<0.5	<0.5	<0.5	--	<0.5	
MW-6	10/01/95	--	ND	ND	ND	ND	<50	11	33	--	--	--	6.2
	01/01/96	--	ND	ND	ND	ND	<50	12	5.3	--	--	--	7.2
	06/12/96	--	<0.5	<0.5	<0.5	<2	<50	5	7.9	--	--	<0.5	3.6
	09/05/96	<5	0.8	<0.5	<0.5	<2	<50	5.2	7.5	--	--	<0.5	5.4
	12/03/96	<5	<0.5	<0.5	<0.5	<2	<50	0.6	0.5	<0.5	<0.5	<0.5	0.9
	02/27/97	<5	<0.5	<0.5	<0.5	<2	<50	0.5	<0.5	<0.5	<0.5	<500	1.3
	06/10/97	<5	0.9	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	--	1
	08/27/97	<5	<0.5	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.9
	11/26/97	7.6	15	0.9	9.1	<2	320	0.6	0.8	<0.5	<0.5	<500	1.2
	02/11/98	<5	<0.5	<0.5	<0.5	<2	<50	<0.5	0.5	<0.5	<0.5	<500	0.7
	05/19/98	<5	0.6	<0.5	<0.5	<2	<50	<0.5	<0.5	<0.5	<0.5	<500	0.6
08/10/98	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50	0.59	1.3	<0.5	<0.5	9,000	0.5



**TABLE 2**  
**Summary of Historical Groundwater Analyses**  
 (All results expressed in parts per billion)

Sears Store 1039  
 1911 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	MTBE	Benzene	Toulene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TCE	1,2-DCA	cis-1,2 DCE	1,1-DCE	OIL/GREASE	PCE
MW-7	10/01/95	--	ND	ND	ND	ND	<50	3.5	8.3	--	--	--	5.3
	01/01/96	--	ND	ND	ND	ND	<50	4.8	5.7	--	--	--	9.3
	06/12/96	--	0.6	<0.5	<0.5	<2	<50	3.4	2.9	--	--	--	6.1
	09/05/96	<5	1.2	<0.5	<0.5	<2	<50	4.2	5.9	--	--	--	8.3
	12/03/96	<5	850	<5	<5	30	120	4	75	<3	<3	<0.5	4
	02/27/97	<30	1500	3.0	23	<10	2,500	4	65	<0.5	<0.5	--	2.2
	06/10/97	<50	1700	<5	59	<20	3,200	4.2	85	<0.5	<0.5	--	2.2
	08/27/97	90	1700	8.0	200	40	3,900	5	93	<3	<3	--	<3
	11/26/97	90	3,100	15.0	190	30	5,600	5.9	120	1	<0.5	--	2.9
	02/11/98	90	3,800	25.0	250	80	8,500	8.9	93	1.2	<0.5	--	4
	05/19/98	300	2,100	440.0	150	220	5,000	3.8	74	0.6	<0.5	--	1.5
	08/10/98	<50	690	<10	13	<10	1,600	3.3	100	<2.5	<2.5	--	<2.5

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

- = No datum for the cell, including "not analyzed for this constituent"
- < = Compound was not detected above the laboratory reporting limits.
- TPH = Total petroleum hydrocarbons
- ND = Non-detectable (Detection limits for each metal are listed in laboratory reports included in Attachment 4.)
- PCE = Tetrachloroethene
- 1,2 DCA = 1,2 Dichloroethane
- TCE = Trichloroethene
- MTBE = Methyl tert-Butyl ether
- cis 1,2-DC = CIS-1,2-Dichloroethene
- 1,1-DCE = 1,1 Dichloroethene



**Attachment 3**  
**Groundwater Monitoring and Sample Collection Protocol**  
**and Field Data Sheets**



## FLUOR DANIEL GTI GROUNDWATER MONITORING AND SAMPLE COLLECTION PROTOCOL

### Groundwater Monitoring

Groundwater monitoring is accomplished using a INTERFACE PROBE™ Well Monitoring System. The INTERFACE PROBE™ Well Monitoring System is a hand held, battery operated device for measuring the depth to separate-phase hydrocarbons and depth to water. The INTERFACE PROBE™ Well Monitoring System consists of a dual-sensing probe which utilized an optical liquid sensor and electrical conductivity to distinguish between water and petroleum products.

Monitoring is accomplished by measuring from the surveyed top of well casing or grade to groundwater and separate-phase hydrocarbons if present. The static water elevation is then calculated for each well and a potentiometric surface map is constructed. If separate-phase hydrocarbons are detected the water elevation is adjusted by the following calculation:

$$(\text{Product thickness}) \times (0.8) + (\text{Water elevation}) = \text{Corrected water elevation}$$

Groundwater monitoring wells are monitored in order of wells with lowest concentrations of volatile organic compounds to wells with the highest concentrations, based upon historical concentrations. If separate-phase hydrocarbons are encountered in a well, the product is visually inspected to confirm and note color, amount, and viscosity. Monitoring equipment is washed with laboratory grade detergent and rinsed with distilled or deionized water before monitoring each well.

### Groundwater Sampling

Before groundwater samples are collected, sufficient water is purged from each well to ensure representative formation water is entering the well. Wells are purged and sampled in the same order as monitoring, from wells with the lowest concentrations of volatile organic compounds to wells with the highest concentrations. Wells are purged using either a polyvinyl chloride (PVC) bailer fitted with a check valve or with a stainless steel submersible Grundfos pump. The purge equipment is decontaminated before use in each well by washing with laboratory grade detergent and tripled rinsing with deionized or distilled water. A minimum of 3 well-casing volumes of water are removed from each well while pH, electrical conductivity, and temperature are recorded to verify that "fresh" formation water is being sampled and the parameters have stabilized. If the well is low yielding, it may be purged dry and sampled before 3 casing volumes are purged. The wells are then allowed to recharge to approximately 80 percent of the initial water level before a sample is collected.

Groundwater samples are collected from each well using a new, prepackaged disposable bailer and string. The water sample is decanted from the bailer into laboratory-provided containers (appropriate for the analyses required) so that there is no headspace in the containers. Samples collected for benzene, toluene, ethyl benzene, xylene, and total petroleum hydrocarbons as gasoline analyses are collected in 40-milliliter vials fitted with Teflon® septum lids. Samples are preserved with hydrochloric acid (HCL) to a pH of less than 2. Dissolved metals samples are filtered through a 0.45-micron paper filter in the field and preserved as required before submitting to the laboratory for analyses. All samples are labeled immediately upon collection and logged on the chain-of-custody record. Sample label and chain-of-custody recorded information includes the project name and number, sample identification, date and time of collection, analyses requested, and the sampler's name. Sample bottles are placed in plastic bags (to protect the bottles and labels) and on ice (frozen water) in an insulated cooler and are shipped under chain-of-custody protocol to the laboratory.

The chain-of-custody record documents who has possession of the samples until the analyses is performed. Other pertinent information is also noted for the laboratory use on the chain-of-custody record.

Trip blanks (TBLBs) are used for each project as a quality assurance/quality control measure. The TBLBs are prepared by the laboratory and are placed in the insulated cooler and accompany the field samples throughout the sampling event.



8/10/98

SITE VISIT FORM  
Fluor Daniel GTI - Martinez, California

Project: 103231.00  
Site: SEARS/1039/Oakland, CA  
Project Mgr: Melissa Gossell

Technician: H. MERZANO  
Scheduled: 8/10/98  
Site Mgr: B. Pierksalla

PREPARATORY COMMENTS

Visit Date: 8/10/98 Arrival Time: 10:30 Departure Time: 12:30

Work Order read in office:  Y/N upon arrival:  Y/N upon departure: Y/N

Called PM? Y/N Time: \_\_\_\_\_ Who: \_\_\_\_\_ Topic: \_\_\_\_\_

Are You In Possession of a Site Safety Plan?  Y/N

COC: Complete with store #, site address & proj office address?  Y/N  
Job # and task #

GROUNDWATER SAMPLING - Task Nr: 030543 [Quarterly]

NOTIFY: Jennie Pinocci 48 hrs. in advance (510) 444-7662. (She will insure that wells are not covered). *Call 8/11/98 @ 2:00pm J. Allerg*

Notify Tom Peacock 72 hrs. in advance (510) 567-6782. DONE: *Left message with Larry site 567-6714 8/6 @ 1:50pm Gale*

SITE ADDRESS: 1911 Telegraph Avenue, Oakland, CA

cc: Melissa Gossell, Brian Pierskalla

During any sampling activities, a minimum work zone will be defined by 10 ft by 10 ft square centered around the monitor well and marked with 36" -high orange traffic cones with flag poles and flag placed in the center of the cone and caution tape stretched between the cones. Employees will be constantly aware of the public access to the work zone and keep them within the outer perimeter of the cones and caution tape at all times.

1. Monitor and sample seven (7) wells in the following order: MW-3, MW-1, MW-6, MW-4, MW-5, MW-2 and MW-7. USE DISPOSABLE BAILERS.
2. Purge each well of 3 well volumes or until dry. Record pH, temp conductivity data.
3. Collect one trip blank and one duplicate from MW-2 and submit for BTEX- 8020 only. Pick up or have trip blank delivered from lab. Must use lab trip (Sequioa Analytical).
4. Make a complete drum count and note the general condition of the site, wells and drums. Keep drum area tidy. Label drums properly (Non

SITE VISIT FORM  
Fluor Daniel GTI - Martinez, California

Project: 103231.00  
Site: SEARS/1039/Oakland, CA  
Project Mgr: Melissa Gossell

Technician: J. M. Jones  
Scheduled: 8/10/98  
Site Mgr: B. Pierksalla

GROUNDWATER SAMPLING (Continued) - Task Nr: 030543 [Quarterly]

Haz).

5. Submit samples to Sequioa Analytical in Redwood City, ph. # (650) 364-3600, to be analyzed for BTEX/MTBE/TPH-G (EPA Method 8020/8015M), and chlorinated hydrocarbons (EPA method 8010). Wells MW-4 and MW-6 additionally analyze for Oil and Grease (C/F).

6. COMPLETED ALL THREE PAGES OF WASTE INVENTORY FORM? YES. IF NO, EXPLAIN \_\_\_\_\_

Hours Estimated	5.00	Hours Used	
-----------------	------	------------	--

FINAL CHECKS

SITE SECURITY: well/covers/gates... secure? Y/N-If No, Explain

WASTE COMPLIANCE: # of Drums w/: Water\_\_\_, Soil\_\_\_, Empty\_\_\_, Other\_\_\_

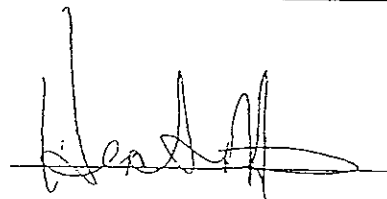
DRUMS labeled? NA/Y/N Gen. Date:\_\_\_\_\_ Label Type:\_\_\_\_\_

SOIL pile? Y/N size:\_\_\_\_\_cu.yds. SITE LEFT CLEAN? Y/N

TECHNICIAN'S COMMENTS

JERROLD JONES TRAINING, GAUGED, PURGED & SAMPLED ALL WELLS. 4 DRUMS TOTAL IN FORMER STATION GARAGE. 2 DRUMS FROM LAST QUARTER NOT PICKED-UP.

Total Hours Estimated	5.00	Total Hours Used	
Travel Time Estimated	1.00	Travel Time Used	





**SITE VISIT FORM  
FLUOR DANIEL GTI**

Project: Sears/1039/Oakland  
Store #: 1039, 1911 Telegraph Ave.  
Project Manager: Melissa Gossell

Technician: W. BERTINO  
Schedule:  
Job No. 103231.030543

**WELL WATER SAMPLING - TASK Nr: 030543 [QUARTERLY]**  
Gauge wells for volume of water & bail 3 well Vol.s. DECON  
all equipment & change gloves, string, etc. between each well.

Well ID

MW-1:	DTB_24.25	DTW <u>15.98</u>	SAT. THICK ___	#GAL. BAILED ___
MW-2:	DTB_24.10	DTW <u>15.82</u>	SAT. THICK ___	#GAL. BAILED ___
MW-3:	DTB_27.75	DTW <u>17.51</u>	SAT. THICK ___	#GAL. BAILED ___
MW-4:	DTB_23.55	DTW <u>14.10</u>	SAT. THICK ___	#GAL. BAILED ___
MW-5:	DTB_25.10	DTW <u>13.97</u>	SAT. THICK ___	#GAL. BAILED ___
MW-6:	DTB_26.75	DTW <u>14.90</u>	SAT. THICK ___	#GAL. BAILED ___
MW-7:	DTB_26.20	DTW <u>16.48</u>	SAT. THICK ___	#GAL. BAILED ___

NOTES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

HOURS ESTIMATED:

HOURS USED:

**FINAL CHECKS**

Are Wells Locked? YES NO Why Not?

Are Manholes Bolted Down? YES NO Why Not?

SITE VISIT FORM  
FLUOR DANIELGTI

Project: Sears/1039/Oakland  
Store #: 1039, 1911 Telegraph Ave.  
Project Manager: Melissa Gosnell

Technician: *WRETD*  
Schedule:  
Job No. 103231.030543

TECHNICIAN'S COMMENTS

Multiple horizontal lines for handwritten technician comments.

TOTAL HOURS ESTIMATED:

HOURS USED:

TRAVEL TIME ESTIMATED:

TRAVEL TIME USED:

\_\_\_\_\_  
TECHNICIAN

DRUMMED MATERIAL INVENTORY FORM

Store Number 1039

Address/City/State/ZIP WILSON GARAGE

Sears Facility Contact and Phone # WILSON GARAGE

Fluor Daniel GTI Representative J. JONES

Accumulation Start Date 8/10/98 Completion Date: 8/10/98

Exact Drum Storage Location WILSON GARAGE IN GARAGE

CONTENTS	# OF DRUMS	DRUM ID (A,B,C...) OR (1,2,3...)	LID TYPE (OPEN OR BUNG)	LABEL TYPE: HAZARDOUS, NON-HAZARDOUS, UNCLASSIFIED	DRUM DESCRIPTION: COLOR, CONDITION, MARKINGS
GASOLINE			O or B	H / N / U	
GASOLINE/WATER MIXTURE	<u>4</u>	<u>A, B, C, D</u>	<u>O or B</u>	<u>H / N / U</u>	<u>WHITE TOP BLACK BOTTOM</u>
GASOLINE IMPACTED PURGE WATER			O or B	H / N / U	
GASOLINE TANK BOTTOMS/SLUDGE			O or B	H / N / U	
GASOLINE IMPACTED DEBRIS			O or B	H / N / U	
GASOLINE IMPACTED SOIL			O or B	H / N / U	
FUEL OIL (INC. DIESEL & HEATING OIL)			O or B	H / N / U	
FUEL OIL/WATER MIXTURE			O or B	H / N / U	
FUEL OIL IMPACTED PURGE WATER			O or B	H / N / U	
FUEL OIL TANKS BOTTOMS/SLUDGE			O or B	H / N / U	
FUEL OIL IMPACTED DEBRIS			O or B	H / N / U	
FUEL OIL IMPACTED SOIL			O or B	H / N / U	
HYDRAULIC FLUID			O or B	H / N / U	
HYDRAULIC FLUID/WATER MIXTURE			O or B	H / N / U	
HYDRAULIC FLUID IMPACTED PURGE WATER			O or B	H / N / U	
HYDRAULIC FLUID IMPACTED SLUDGE			O or B	H / N / U	
HYDRAULIC FLUID IMPACTED DEBRIS			O or B	H / N / U	
HYDRAULIC FLUID IMPACTED SOIL			O or B	H / N / U	
USED OIL			O or B	H / N / U	
USED OIL/WATER MIXTURE			O or B	H / N / U	
USED OIL IMPACTED PURGE WATER			O or B	H / N / U	
USED OIL TANK BOTTOMS/SLUDGE			O or B	H / N / U	
USED OIL IMPACTED DEBRIS			O or B	H / N / U	
USED OIL IMPACTED SOIL			O or B	H / N / U	
CHLORINATED SOLVENT:			O or B	H / N / U	
NON-CHLORINATED SOLVENT:			O or B	H / N / U	
OTHER:			O or B	H / N / U	
OTHER:			O or B	H / N / U	
OTHER:			O or B	H / N / U	

NOTE: There should NEVER be 2 drums with the same ID present at a site at the same time!

DRUMMED MATERIAL INVENTORY FORM

Store Number 1039

City/State Oakland CA

Fluor Daniel GTI Representative JONES

THERE SHOULD NEVER BE 2 DRUMS WITH THE SAME DRUM ID PRESENT AT A SITE AT THE SAME TIME

DRUM ID	ACCUMULATION START DATE	CONTENTS (as on label) VOLUME (if mixed waste)	SOURCE (be specific)	SLUDGE PRESENT Y/N	VOLUME (gallon)
A	5/97	PURGE WATER	WELLS	NO	55
B	5/97	PURGE WATER	WELLS	NO	55
C	8/10/97	PURGE WATER	WELLS	NO	55
D	8/10/97	PURGE WATER	WELLS	NO	55

EXAMPLE

A	6/24/94	diesel(3)/water(8)	diesel lines, flush water	no	11
---	---------	--------------------	---------------------------	----	----

NOTE: There should NEVER be 2 drums with the same ID present at a site at the same time!

**BULK MATERIAL INVENTORY FORM**

Store Number 1089 Address/City/State/ZIP 3100 Channing St, Oakland, CA 94608

Sears Facility Contact and Phone # \_\_\_\_\_ Oakland

Fluor Daniel GTI Representative \_\_\_\_\_

Accumulation Start Date 10/8/97 Completion Date 10/21/97

Exact Bulk Storage Location Garage  
IN GARAGE

CONTAMINANTS	SOIL (Cu Yds)	DEBRIS (Cu Yds)	LIQUID (Gallons)
<del>PURCHASED FOR GASOLINE</del> <u>ATBICID</u>			<u>240 Gall</u>
FUEL OIL			
HYDRAULIC FLUID			
USED OIL			
CHLORINATED SOLVENT:			
NON-CHLORINATED SOLVENT:			
OTHER:			
OTHER:			

**SOIL PILE CALCULATIONS**

Calculation for a tent shaped soil pile:

Length \_\_\_\_\_ X Width \_\_\_\_\_ X Height \_\_\_\_\_  $\div 2 \div 27 =$  \_\_\_\_\_ Yds<sup>3</sup>

Calculation for a rectangular or square shaped soil pile:

Length \_\_\_\_\_ X Width \_\_\_\_\_ X Height \_\_\_\_\_  $\div 27 =$  \_\_\_\_\_ Yds<sup>3</sup>

Calculation for a conical (cone) shaped soil pile:

.04 X Radius \_\_\_\_\_ X Radius \_\_\_\_\_ X Height \_\_\_\_\_ = \_\_\_\_\_ Yds<sup>3</sup>

Project Name: Sears/1039/Oakland  
 Site Address: 1911 Telegraph Ave., Oakland  
 Project Number: 103231.030543

Date: 8/10/98  
 Page 1 of 7  
 Project Manager: Melissa Gossell

Well ID: MW-3  
4"  
 Well Diameter: \_\_\_\_\_

DTW Measurements:  
 Initial: 17.51 Calc Well Volume: 6.6 gal  
 Recharge: \_\_\_\_\_ Well Volume: x 3 = 20.0 gal  
 DTB: 27.75

Purge Method \_\_\_\_\_ Pump Depth \_\_\_\_\_ ft.  
 Peristaltic \_\_\_\_\_ Hand Bailed \_\_\_\_\_  
 Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
 Submersible  Other \_\_\_\_\_  
 Instruments Used  
 YSI:  Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

Calibrated YSI to 7+4 Buffer Solution @ L. Sam on 8/10/98

Time	Temp <u>✓</u> C ____F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
11:22	23.2	0.44	6.42	5	CLEAR	cloudy
11:24	21.9	0.40	6.23	10	CLEAR	
11:26	21.7	0.42	6.26	15	CLEAR	
11:30	21.6	0.45	6.37	<del>20</del>	CLEAR	DRY AT 18 gal.

Project Name: Sears/1039/Oakland  
 Site Address: 1911 Telegraph Ave., Oakland  
 Project Number: 103231.030543

Date: 8/15/98  
 Page 2 of 7  
 Project Manager: Melissa Gossell

Well ID: MW-1  
 Well Diameter: 2"

DTW Measurements:  
 Initial: 15.98 Calc Well Volume: 1.3 gal  
 Recharge: \_\_\_\_\_ Well Volume:  $X^3 =$  4.0 gal  
 DTB: 24.25

Purge Method \_\_\_\_\_ Pump Depth \_\_\_\_\_ ft.  
 Peristaltic \_\_\_\_\_ Hand Bailed \_\_\_\_\_  
 Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
 Submersible  Other \_\_\_\_\_  
 Instruments Used  
 YSI:  Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

Time	Temp <input checked="" type="checkbox"/> C ____ F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
11:38	23.1	0.50	6.41	1	CLEAR	
11:39	22.9	0.42	6.32	2	CLEAR	
11:39	22.2	0.40	6.23	3	"	
11:40	21.9	0.40	6.20	4	"	
11:41	21.8	0.39	6.17	5	cloudy	





Project Name: Sears/1039/Oakland  
 Site Address: 1911 Telegraph Ave., Oakland  
 Project Number: 103231.030543

Date: 8/10/98  
 Page 4 of 17  
 Project Manager: Melissa Gossell

.053

Well ID: MW-4  
 Well Diameter: 4"

DTW Measurements:  
 Initial: 14.10 Calc Well Volume: 6.17 gal  
 Recharge: \_\_\_\_\_ Well Volume: x 3 = 18.5 gal  
 DTB: 23.55

Purge Method \_\_\_\_\_ Pump Depth \_\_\_\_\_ ft.  
 Peristaltic \_\_\_\_\_ Hand Bailed \_\_\_\_\_  
 Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
 Submersible  Other \_\_\_\_\_

Instruments Used  
 YSI:  \_\_\_\_\_ Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

Time	Temp C F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
12:11	23.5	0.77	6.59	3	CLEAR	
12:13	22.5	0.74	6.56	6	CLEAR	
12:15	22.3	0.75	6.55	12	CLEAR	
12:14	22.2	0.80	6.57	19	CLEAR	DRY AT 15 gal.





Project Name: Sears/1039/Oakland  
 Site Address: 1911 Telegraph Ave., Oakland  
 Project Number: 103231.030543

Date: 8/10/98  
 Page 4 of 7  
 Project Manager: Melissa Gossell

Well ID: MW-7  
 Well Diameter: 2"

DTW Measurements:  
 Initial: 16.48 Calc Well Volume: 1.5 gal  
 Recharge: \_\_\_\_\_ Well Volume:  $X3 =$  4.7 gal  
 DTB: 26.26

Purge Method: Submersible ✓  
 Crystalline \_\_\_\_\_  
 Gear Drive \_\_\_\_\_  
 Pump Depth \_\_\_\_\_ ft.  
 Hand Bailed \_\_\_\_\_  
 Air Lift \_\_\_\_\_  
 Other \_\_\_\_\_  
 Instruments Used:  
 YSI: ✓  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_  
 Other: \_\_\_\_\_

Time	Temp	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
	<input checked="" type="checkbox"/> C _____ F					
13:04	24.6	0.97	6.47	1	Cloudy	
13:05	24.2	0.86	6.51	2	Cloudy	
13:06	23.2	0.79	6.53	3	Cloudy	
13:08	22.6	0.70	6.51	5	DIATY	



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Fluor Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1039

Lab Proj. ID: 9808693

Sampled: 08/10/98  
Received: 08/11/98  
Analyzed: see below

Attention: Melissa Gossel


Reported: 08/27/98

### LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9808693-04 Sample Desc: LIQUID,MW-6				
Total Oil&Grease (5520B)	mg/L	08/19/98	5.0	9.0
Lab No: 9808693-05 Sample Desc: LIQUID,MW-4				
Total Oil&Grease (5520B)	mg/L	08/19/98	5.0	9.6

analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
David A. Pichette  
Project Manager



**Attachment 4**

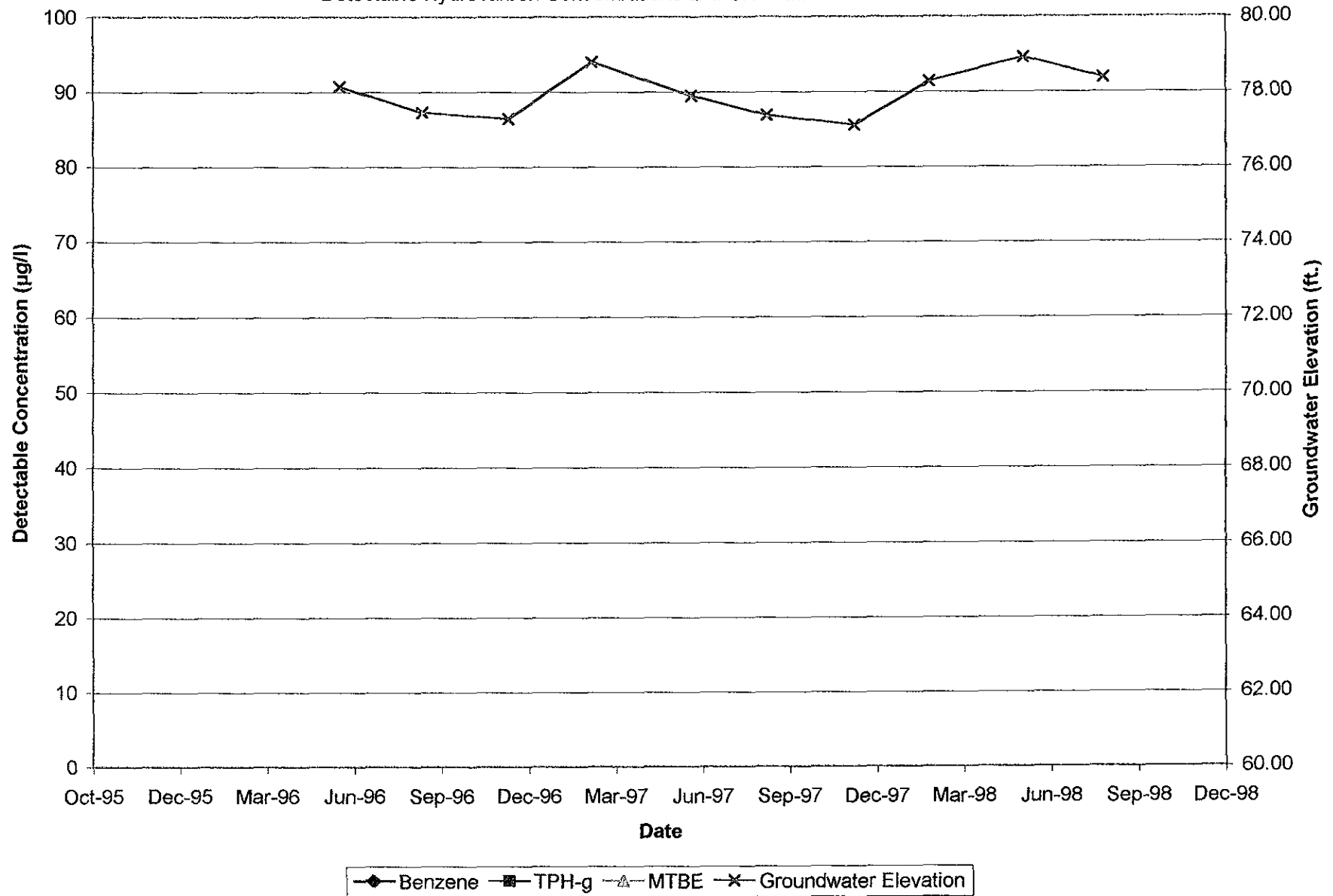
**Graphs**

a:15rs3QTR9811039QH98.wpd



Graph 1, MW-1  
Sears Store No. 1039, 1911 Telegraph Avenue,  
Oakland, California

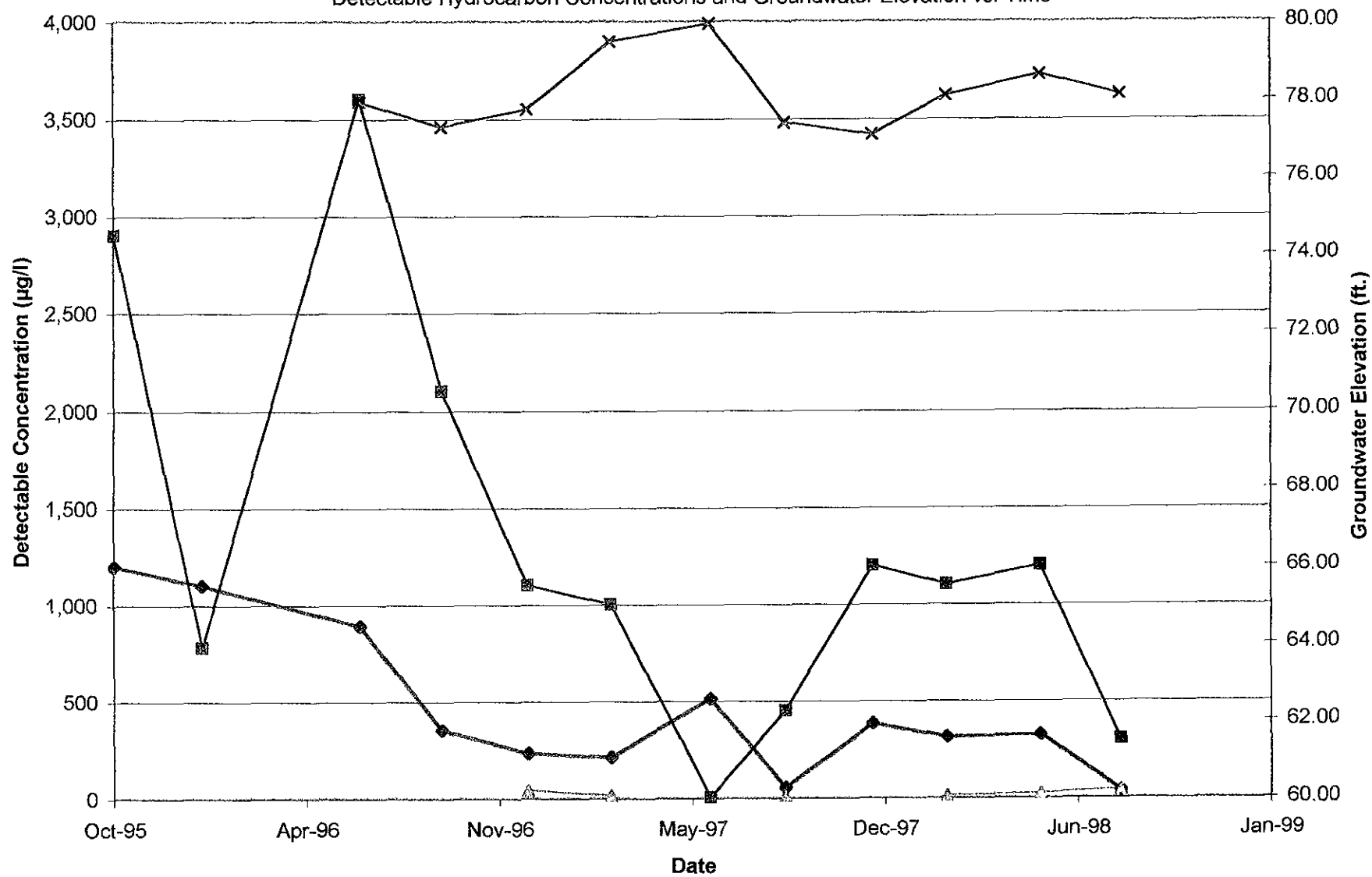
Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



NOTE:  
No detectable Benzene, TPH-g, or MTBE

Graph 2, MW-2  
 Sears Store No. 1039, 1911 Telegraph Avenue,  
 Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time

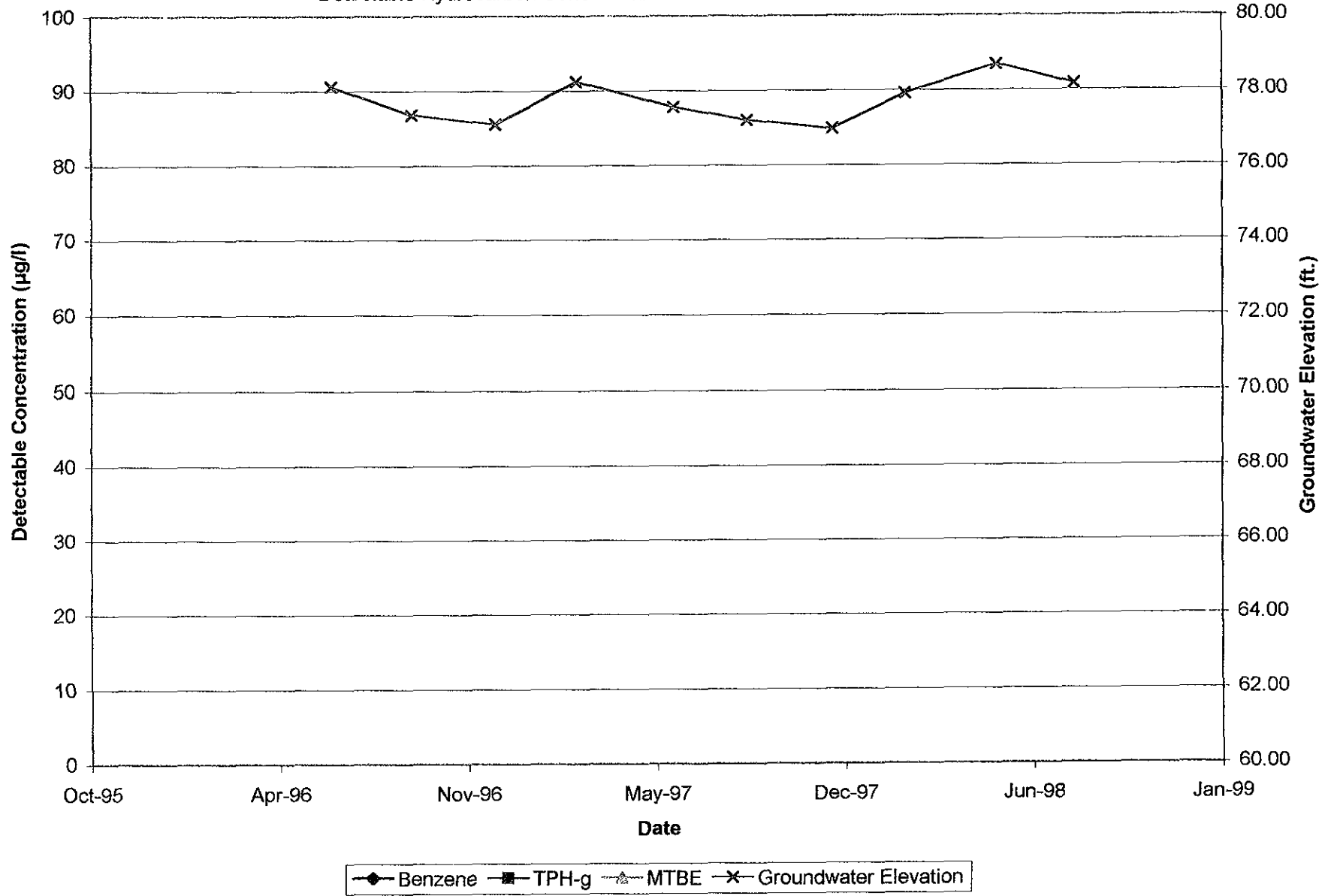


◆ Benzene    ■ TPH-g    ▲ MTBE    ✕ Groundwater Elevation



Graph 3, MW-3  
Sears Store No. 1039, 1911 Telegraph Avenue,  
Oakland, California

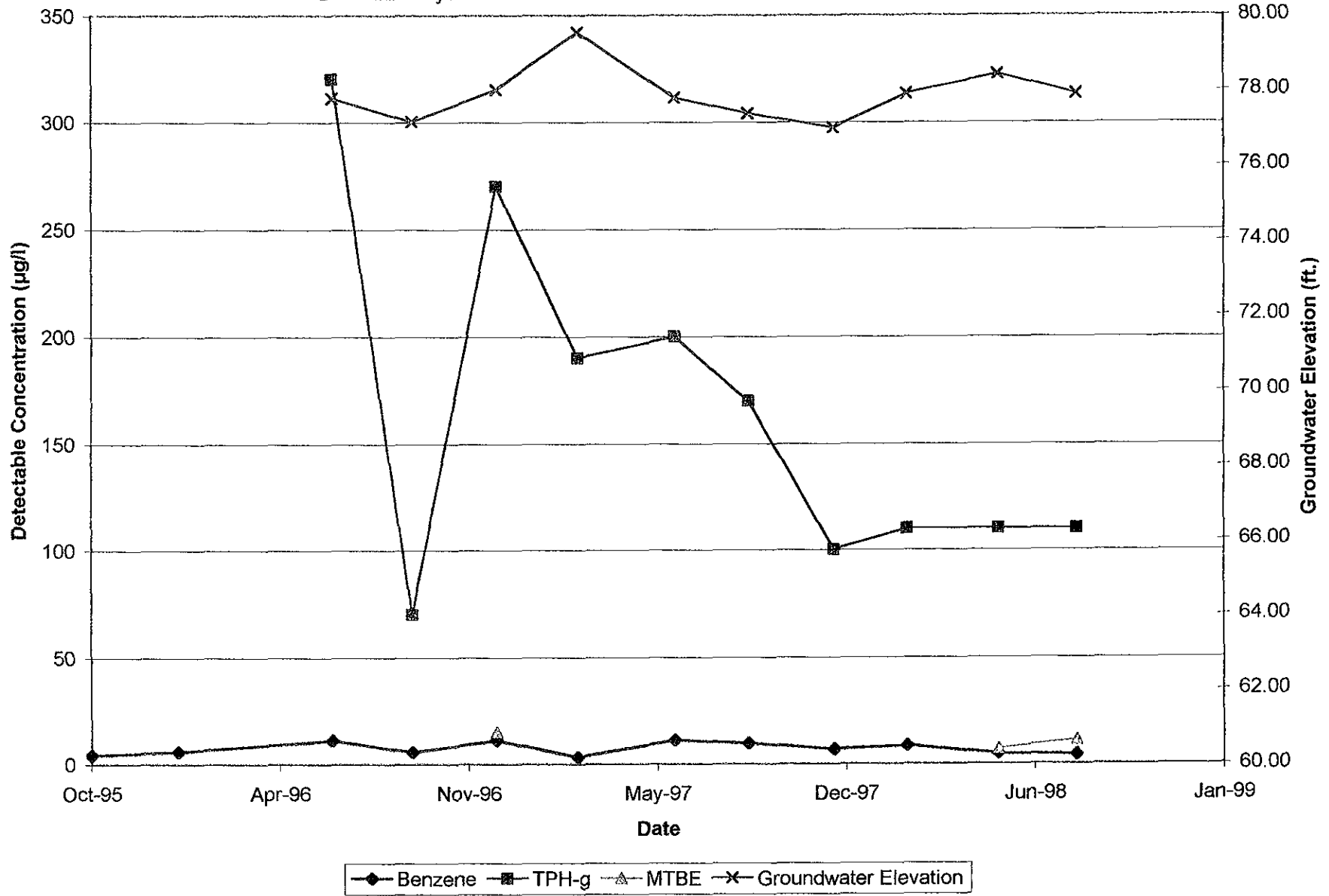
Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



NOTE:  
No detectable Benzene, TPH-g, or MTBE

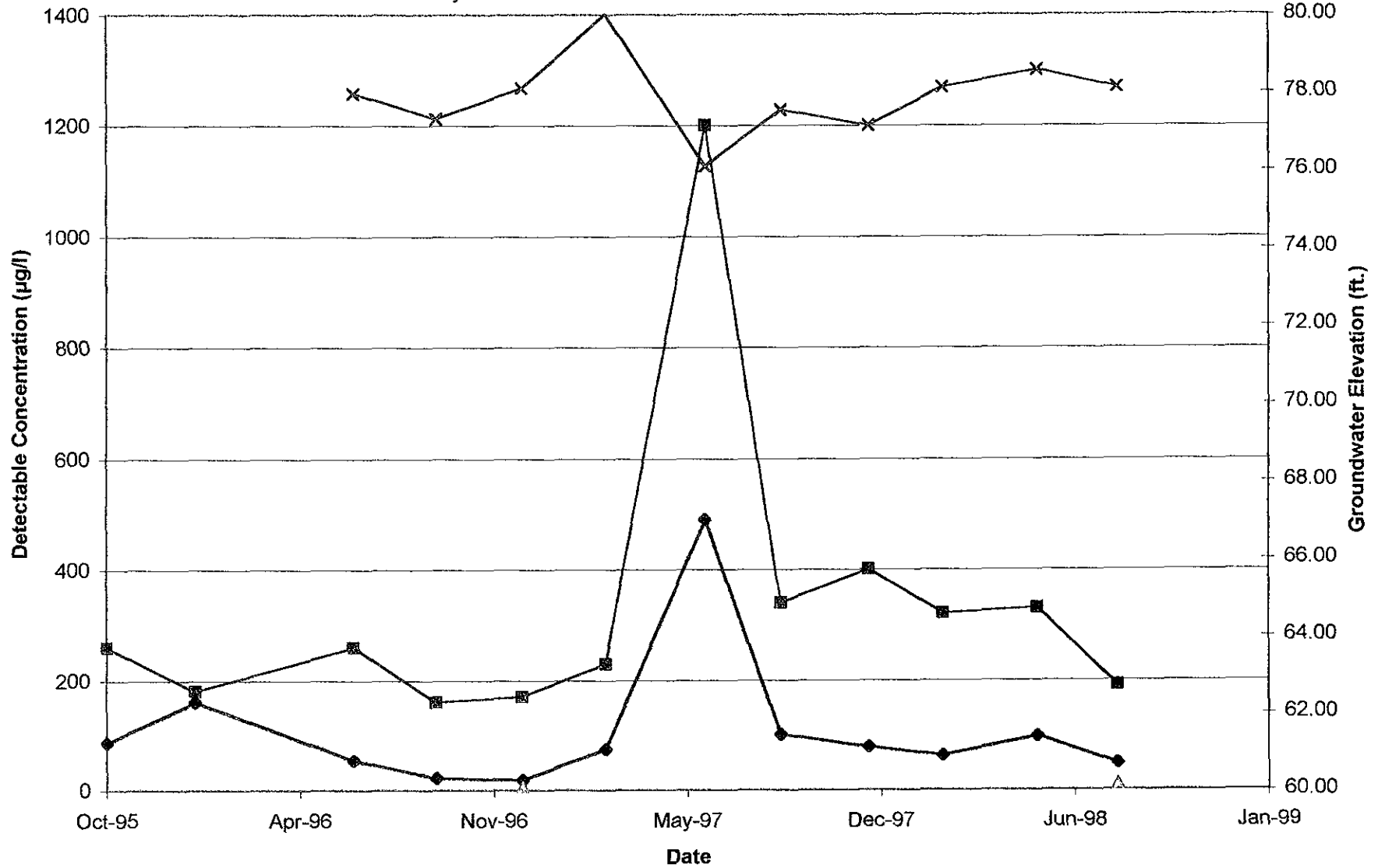
Graph 4, MW-4  
Sears Store No. 1039, 1911 Telegraph Avenue,  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



Graph 5, MW-5  
 Sears Store No. 1039, 1911 Telegraph Avenue,  
 Oakland, California

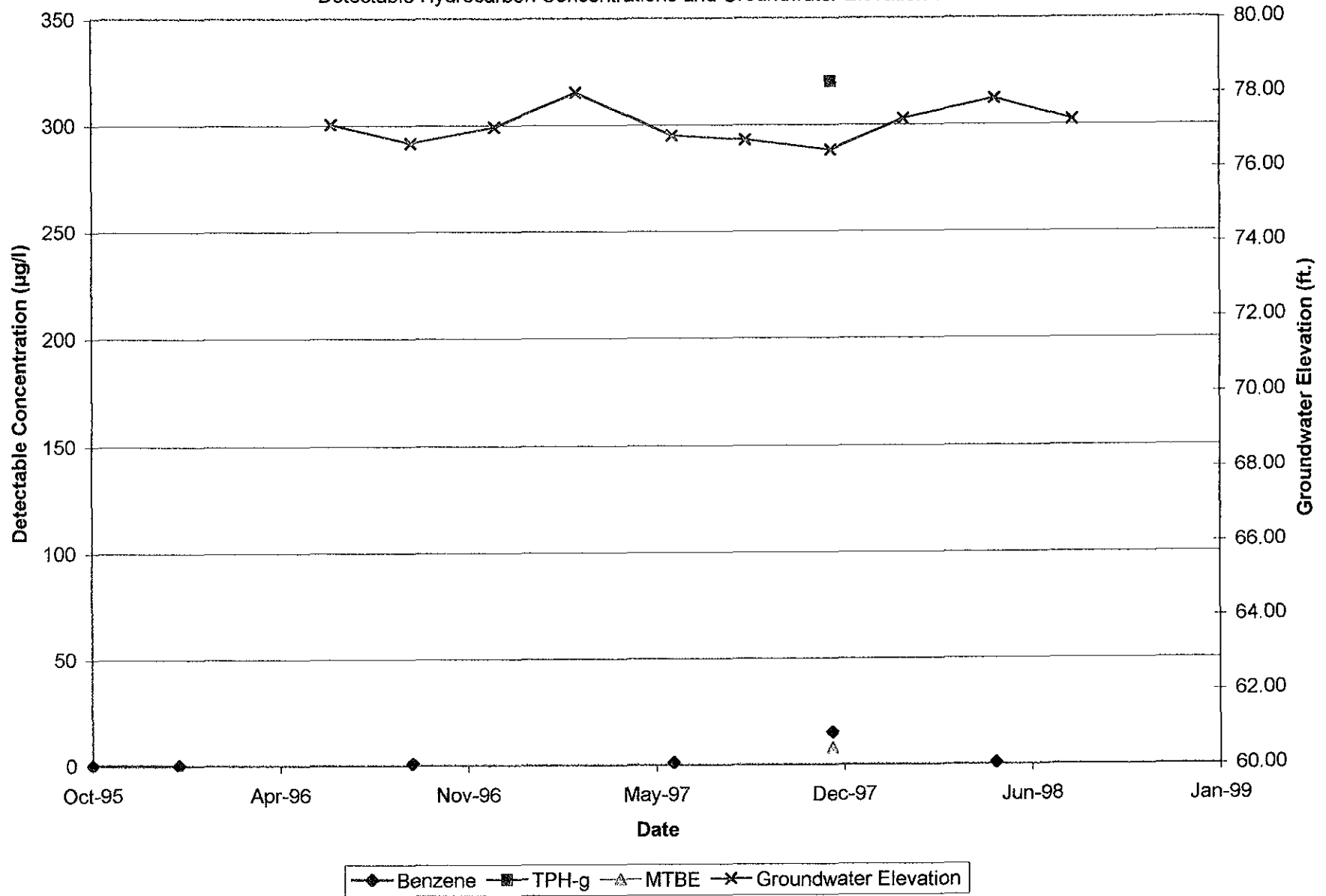
Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



◆ Benzene    ■ TPH-g    ▲ MTBE    × Groundwater Elevation

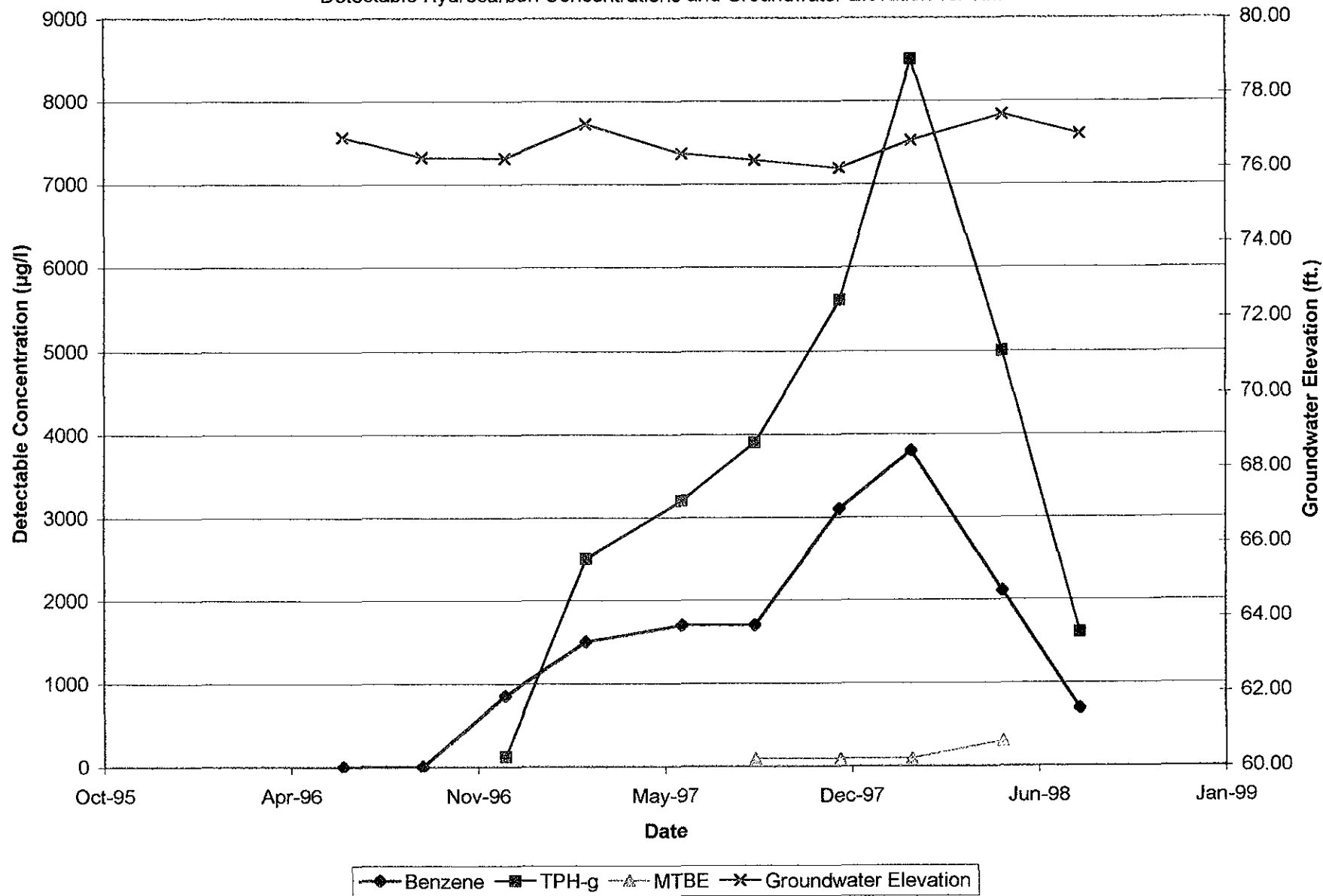
Graph 6, MW-6  
Sears Store No. 1039, 1911 Telegraph Avenue,  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



Graph 7, MW-7  
Sears Store No. 1039, 1911 Telegraph Avenue,  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



**Attachment 5**  
**Laboratory Reports and Chain-of-Custody Documents**

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Fluor Daniel GTI
757 Arnold Dr., Suite D
Martinez, CA 94553
Attention: Melissa Gossel
Client Proj. ID: Sears #1039
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: EPA 8010
Lab Number: 9808693-01
Sampled: 08/10/98
Received: 08/11/98
Analyzed: 08/21/98
Reported: 08/27/98

QC Batch Number: GC082098OVOA24A
Instrument ID: GCHP24\_2

Halogenated Volatile Organics (EPA 8010)

Table with 3 columns: Analyte, Detection Limit ug/L, Sample Results ug/L. Lists various organic compounds like Bromodichloromethane, Bromoform, etc., with their respective limits and results (mostly N.D.).

Table with 3 columns: Surrogates, Control Limits %, % Recovery. Shows Bromofluorobenzene with 70% control limit and 88% recovery.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Signature of David A. Pichette
David A. Pichette
Project Manager





For Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1039  
Sample Descript: MW-1  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808693-01

Sampled: 08/10/98  
Received: 08/11/98  
Analyzed: 08/17/98  
Reported: 08/27/98

Attention: Melissa Gossel

QC Batch Number: GC081798BTEX21A  
Instrument ID: GCHP21

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	89

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
David A. Pichette  
Project Manager







Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553  Attention: Melissa Gossel	Client Proj. ID: Sears #1039 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: EPA 8010 Lab Number: 9808693-02	Sampled: 08/10/98 Received: 08/11/98  Analyzed: 08/21/98 Reported: 08/27/98
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QC Batch Number: GC082098OVOA24A  
Instrument ID: GCHP24\_2

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Peron 113	1.0	N.D.

Surrogates	Control Limits %	% Recovery
4-Bromofluorobenzene	70 130	94

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

*David A. Pichette*  
David A. Pichette  
Project Manager





Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553	Client Proj. ID: Sears #1039 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808693-02	Sampled: 08/10/98 Received: 08/11/98 Analyzed: 08/17/98 Reported: 08/27/98
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Attention: Melissa Gossel  
QC Batch Number: GC081798BTEX21A  
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		N.D.
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70                      130	88

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Analyst: Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1039  
Sample Descript: MW-7  
Matrix: LIQUID  
Analysis Method: EPA 8010  
Lab Number: 9808693-03

Sampled: 08/10/98  
Received: 08/11/98  
Analyzed: 08/22/98  
Reported: 08/27/98

Attention: Melissa Gossel  
QC Batch Number: GC082198OVOA24A  
Instrument ID: GCHP24\_2

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Chloromethane	5.0	N.D.
Carbon Tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	5.0	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	100
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	25	N.D.
1,1,1,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	2.5	3.3
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.
Neon 113	5.0	N.D.

Surrogates	Control Limits %	% Recovery
Bromofluorobenzene	70 130	98

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

*David A. Pichette*  
David A. Pichette  
Project Manager





Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553	Client Proj. ID: Sears #1039 Sample Descript: MW-7 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808693-03	Sampled: 08/10/98 Received: 08/11/98 Analyzed: 08/23/98 Reported: 08/27/98
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QC Batch Number: GC082398BTEX02A  
Instrument ID: GCHP2

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	1600
Methyl t-Butyl Ether	50	N.D.
Benzene	10	690
Toluene	10	N.D.
Ethyl Benzene	10	13
Xylenes (Total)	10	N.D.
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	91

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pickette  
Project Manager





Fluor Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1039  
Sample Descript: MW-6  
Matrix: LIQUID  
Analysis Method: EPA 8010  
Lab Number: 9808693-04

Sampled: 08/10/98  
Received: 08/11/98  
Analyzed: 08/21/98  
Reported: 08/27/98

Attention: Melissa Gossel

QC Batch Number: GC082098OVOA24A

Instrument ID: GCHP24\_2

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	1.3
1,1-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethane	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	0.59
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Freon 113	1.0	N.D.

Surrogates	Control Limits %	% Recovery
4-Bromofluorobenzene	70 130	98

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Analyst: Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1039  
Sample Descript: MW-6  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808693-04

Sampled: 08/10/98  
Received: 08/11/98  
Analyzed: 08/17/98  
Reported: 08/27/98

Attention: Melissa Gossel

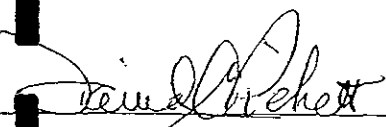
QC Batch Number: GC081798BTEX21A  
Instrument ID: GCHP21

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	98

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

  
\_\_\_\_\_  
David A. Pichette  
Project Manager





Fluor Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1039  
Sample Descript: MW-4  
Matrix: LIQUID  
Analysis Method: EPA 8010  
Lab Number: 9808693-05

Sampled: 08/10/98  
Received: 08/11/98  
Analyzed: 08/21/98  
Reported: 08/27/98

Attention: Melissa Gossel

QC Batch Number: GC082098OVOA24A  
Instrument ID: GCHP24\_2

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Dichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Freon 113	1.0	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Bromofluorobenzene	70 130	100

All analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553  Attention: Melissa Gossel	Client Proj. ID: Sears #1039 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808693-05	Sampled: 08/10/98 Received: 08/11/98  Analyzed: 08/17/98 Reported: 08/27/98
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QC Batch Number: GC081798BTEX21A  
Instrument ID: GCHP21

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	110
Methyl t-Butyl Ether	2.5	11
Benzene	0.50	4.1
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C10
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1,1-Difluorotoluene	70 130	114

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

*David A. Pichette*  
\_\_\_\_\_  
David A. Pichette  
Project Manager







Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Melissa Gossel	Client Proj. ID: Sears #1039 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: EPA 8010 Lab Number: 9808693-06	Sampled: 08/10/98 Received: 08/11/98  Analyzed: 08/21/98 Reported: 08/27/98
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QC Batch Number: GC082098OVOA24A  
Instrument ID: GCHP24\_2

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
Neon 113	1.0	N.D.

Surrogates	Control Limits %	% Recovery
Bromofluorobenzene	70 130	104

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Fluor Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1039  
Sample Descript: MW-5  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808693-06

Sampled: 08/10/98  
Received: 08/11/98

Attention: Melissa Gossel

Analyzed: 08/17/98  
Reported: 08/27/98

QC Batch Number: GC081798BTEX21A  
Instrument ID: GCHP21

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	190
Methyl t-Butyl Ether	2.5	11
Benzene	0.50	48
Toluene	0.50	1.9
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C10
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	187 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Melissa Gossel	Client Proj. ID: Sears #1039 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8010 Lab Number: 9808693-07	Sampled: 08/10/98 Received: 08/11/98  Analyzed: 08/22/98 Reported: 08/27/98
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QC Batch Number: GC082298OVOA24B  
Instrument ID: GCHP24\_2

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	30
trans-1,2-Dichloroethene	0.50	2.4
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	11
Vinyl chloride	1.0	N.D.
Neon 113	1.0	N.D.

Surrogates	Control Limits %	% Recovery
Bromofluorobenzene	70 130	70

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Melissa Gossel	Client Proj. ID: Sears #1039 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808693-07	Sampled: 08/10/98 Received: 08/11/98 Analyzed: 08/17/98 Reported: 08/27/98
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QC Batch Number: GC081798BTEX21A  
Instrument ID: GCHP21

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**


Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	300
Methyl t-Butyl Ether	2.5	40
Benzene	0.50	37
Toluene	0.50	1.0
Ethyl Benzene	0.50	1.2
Xylenes (Total)	0.50	0.90
Chromatogram Pattern: Gas & Unidentified HC		c6-c12

Surrogates	Control Limits %	% Recovery
1,1-Difluorotoluene	70	130
		401 Q

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
 David A. Pichette  
 Project Manager





Fluor Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1039  
Sample Descript: Dup-MW2  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808693-08

Sampled: 08/10/98  
Received: 08/11/98  
Analyzed: 08/17/98  
Reported: 08/27/98

Attention: Melissa Gossel

QC Batch Number: GC081798BTEX21A

Instrument ID: GCHP21

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	260
Methyl t-Butyl Ether	2.5	32
Benzene	0.50	32
Toluene	0.50	0.66
Ethyl Benzene	0.50	0.98
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Gas & Unidentified HC		c6-c12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
		371 Q

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Melissa Gossel	Client Proj. ID: Sears #1039 Sample Descript: TBLB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808693-09	Sampled: 08/10/98 Received: 08/11/98 Analyzed: 08/17/98 Reported: 08/27/98
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QC Batch Number: GC081798BTEX21A  
Instrument ID: GCHP21

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 - 130	89

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





# Sequoia Analytical

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FAX (916) 921-0100  
FAX (707) 792-0342

Fluor Daniel GTI  
757 Arnold Dr., Ste. D  
Martinez, CA 94553  
Attention: Melisa Gossiel

Client Project ID: Sears #1039

QC Sample Group: 9808693

Reported: Aug 27, 1998

## QUALITY CONTROL DATA REPORT

Matrix: Liquid  
Method: EPA 8010/8020, 601/602  
Analyst: C. Medina

ANALYTE	1,1-DCE	TCE	Chlorobenzene	Benzene	Toluene	Chlorobenzene
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QC Batch #: GC0820980VOA24A

Sample No.: 9808468-01

	1,1-DCE	TCE	Chlorobenzene	Benzene	Toluene	Chlorobenzene
Date Prepared:	8/19/98	8/19/98	8/19/98	8/19/98	8/19/98	8/19/98
Date Analyzed:	8/20/98	8/20/98	8/20/98	8/20/98	8/20/98	8/20/98
Instrument I.D.#:	gchp24_2	gchp24_2	gchp24_2	gchp24_2	gchp24_2	gchp24_2

Sample Conc., ug/L:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Conc. Spiked, ug/L:	25	25	25	25	25	25

Matrix Spike, ug/L:	19	18	20	24	22	21
% Recovery:	76	72	80	96	88	84

Matrix						
Spike Duplicate, ug/L:	22	19	19	24	23	21
% Recovery:	88	76	76	96	92	84

Relative % Difference:	15	5.4	5.1	0.0	4.4	0.0
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RPD Control Limits:	0-50	0-50	0-50	0-50	0-50	0-50
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LCS Batch#: VWLCS082098A

	1,1-DCE	TCE	Chlorobenzene	Benzene	Toluene	Chlorobenzene
Date Prepared:	8/20/98	8/20/98	8/20/98	8/20/98	8/20/98	8/20/98
Date Analyzed:	8/20/98	8/20/98	8/20/98	8/20/98	8/20/98	8/20/98
Instrument I.D.#:	gchp24_2	gchp24_2	gchp24_2	gchp24_2	gchp24_2	gchp24_2

Conc. Spiked, ug/L:	25	25	25	25	25	25
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Recovery, ug/L:	23	21	23	25	23	21
LCS % Recovery:	92	84	92	100	92	84

Percent Recovery Control Limits:

MS/MSD	60-140	60-140	60-140	60-140	60-140	60-140
LCS	65-135	70-130	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

David A. Pichette  
Project Manager





# Sequoia Analytical

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Fluor Daniel GTI  
757 Arnold Drive, Suite D  
Martinez, CA 94553

Client Project ID: Sears #1039  
Matrix: LIQUID

Attention: Melisa Gossiel

Work Order #: 9808693

Reported: Aug 27, 1998

## QUALITY CONTROL DATA REPORT

Analyte: Total Oil & Grease

QC Batch#: SP0818985520EXA  
Analy. Method: SM 5520B  
Prep. Method: SM 5520B

Analyst: H. Olanon  
BS/BSD #: BLK081898  
Sample Conc.: N.D.  
Prepared Date: 8/18/98  
Analyzed Date: 8/19/98  
Instrument I.D.#: MANUAL  
Conc. Spiked: 20 mg/L

Result: 20  
BS % Recovery: 100

Dup. Result: 21  
BSD % Recov.: 105

RPD: 4.9  
RPD Limit: 0-30

LCS #:

Prepared Date:  
Analyzed Date:  
Instrument I.D.#:  
Conc. Spiked:

LCS Result:  
LCS % Recov.:

MS/MSD 60-140  
LCS 70-130  
Control Limits

### Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

*David A. Pichette*  
David A. Pichette  
Project Manager

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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**Sequoia  
Analytical**

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Fluor Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553  
Attention: Melisa Gossiel

Client Project ID: Sears #1039

QC Sample Group: 9808693

Reported: Aug 28, 1998

**QUALITY CONTROL DATA REPORT**

Matrix: Liquid  
Method: EPA 8015  
Analyst: NC

ANALYTE Gasoline

QC Batch #: GC08199881EX02A

Sample No.: GW9808686-02  
Date Prepared: 8/19/98  
Date Analyzed: 8/19/98  
Instrument I.D.#: GCHP02

Sample Conc., ug/L: N.D.  
Conc. Spiked, ug/L: 250

Matrix Spike, ug/L: 270  
% Recovery: 108

Matrix  
Spike Duplicate, ug/L: 170  
% Recovery: 68

Relative % Difference: 45

RPD Control Limits: 0-25

LCS Batch#: GWLCS081998A

Date Prepared: 8/19/98  
Date Analyzed: 8/19/98  
Instrument I.D.#: GCHP02

Conc. Spiked, ug/L: 250

LCS Recovery, ug/L: 270  
LCS % Recovery: 108

Percent Recovery Control Limits:

MS/MSD 60-140  
LCS 70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

**Please Note:**

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

*David A. Pichette*  
David A. Pichette  
Project Manager





# SEQUIOA ANALYTICAL

## CHAIN OF CUSTODY

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 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 FAX (510) 988-9673

Company Name: FLUOR DANIEL GTI Project Name: SEALS # 1039  
 Address: 757 ARNOLD DR, SUITE 20 Billing Address (if different):  
 City: MANTINEZ State: CA Zip Code: 94573 Job # 103231, 030543  
 Telephone: (925) 370-3950 FAX #: (925) 370-3991 P.O. #:  
 Report To: MELISA GOSSIEL Sampler: JONES, A MENDO QC Data:  Level D (Standard)  Level C  Level B  Level A

Turnaround  10 Working Days  3 Working Days  2 - 8 Hours  Drinking Water  
 Time:  7 Working Days  2 Working Days  AS CONTRACTED  Waste Water  
 5 Working Days  24 Hours  Other

Analyses Requested: 9808693

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	CHLORIDE	BTEX	MTBE	PETROLEUM	OTHER	Comments
1. MW-1	8/14/98 14:00	GW	7	40ML	01	X	X				
2. MW3	14:10		7		02	X	X				
3. MW7	14:20		7		03	X	X				
4. MW-6	10/14/98 14:30		9	40ML LITER	04	X	X	X			
5. MW-4	14:40		9		05	X	X	X			
6. MW-5	14:50		7	40ML	06	X	X				
7. MW-2			7		07	X	X				
8. DUP-MW2			3		08				X		DUP MW2
9. TBLB			1		09				X		TBLB FOR GAS BTEX/MTBE
10											

Relinquished By: <u>[Signature]</u>	Date: <u>8/11/98</u>	Time: <u>2:09</u>	Received By: <u>[Signature]</u>	Date: <u>8/11/98</u>	Time: <u>2:09</u>
Relinquished By: <u>[Signature]</u>	Date: <u>8/11/98</u>	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: <u>[Signature]</u>	Date: <u>8/11/98</u>	Time: <u>7:20</u>

Pink - Client  
Yellow - Sequoia  
White - Sequoia