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January 23, 1998

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

Subject: Quarterly Groundwater Monitoring and Sampling Report  
Former Sears Store 1058, 2633 Telegraph Avenue, Oakland, California  
Fluor Daniel GTI Project 020200281


Dear Mr. Klettke:

On behalf of Sears, Roebuck and Co., Fluor Daniel GTI, Inc., presents the quarterly groundwater monitoring data collected on November 28, 1997 at the site referenced above. The ten groundwater monitoring wells were gauged to determine depth to groundwater and to check for the presence of separate-phase petroleum hydrocarbons, in accordance with correspondence from the Alameda Health Care Services Agency dated May 1, 1996. A layer 0.03-foot-thick of separate-phase hydrocarbons was detected in monitoring well MW-3, which is consistent with past measurements. A potentiometric surface map is presented in Attachment 1, Figure 1. A historical summary of groundwater monitoring data is presented in Attachment 2, Table 1.

After measuring depth to water, six of the seven scheduled monitoring wells were purged and sampled. Because ~~separate-phase hydrocarbons were detected in well MW-3, this well was not sampled.~~ Groundwater monitoring and sample collections protocol and field data sheets are presented in Attachment 3. The groundwater samples were analyzed for benzene, toluene, ethyl-benzene, xylenes (BTEX), methyl tert-butyl ether (MTBE) and for total petroleum hydrocarbons (TPH)-as-gasoline by EPA Methods 8020/modified 8015, and for TPH-as-motor oil by modified EPA Method 8015 (GC/FID). A summary of the groundwater analytical results is presented in Attachment 2, Table 2. A distribution map of dissolved benzene, TPH-as-gasoline and TPH-as-motor-oil concentrations is presented as Attachment 1, Figure 2. Laboratory reports and chain-of-custody records are included in Attachment 4.

If you have any comments or questions, please contact me at (510) 370-3990.

Sincerely,  
Fluor Daniel GTI, Inc.

  
Eileen Brennan  
West Zone Project Manager

Attachments

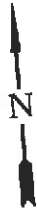
cc: Scott M. DeMuth, Sears, Roebuck and Co.  
Central Files, Lenexa, Kansas

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## **ATTACHMENT 1**

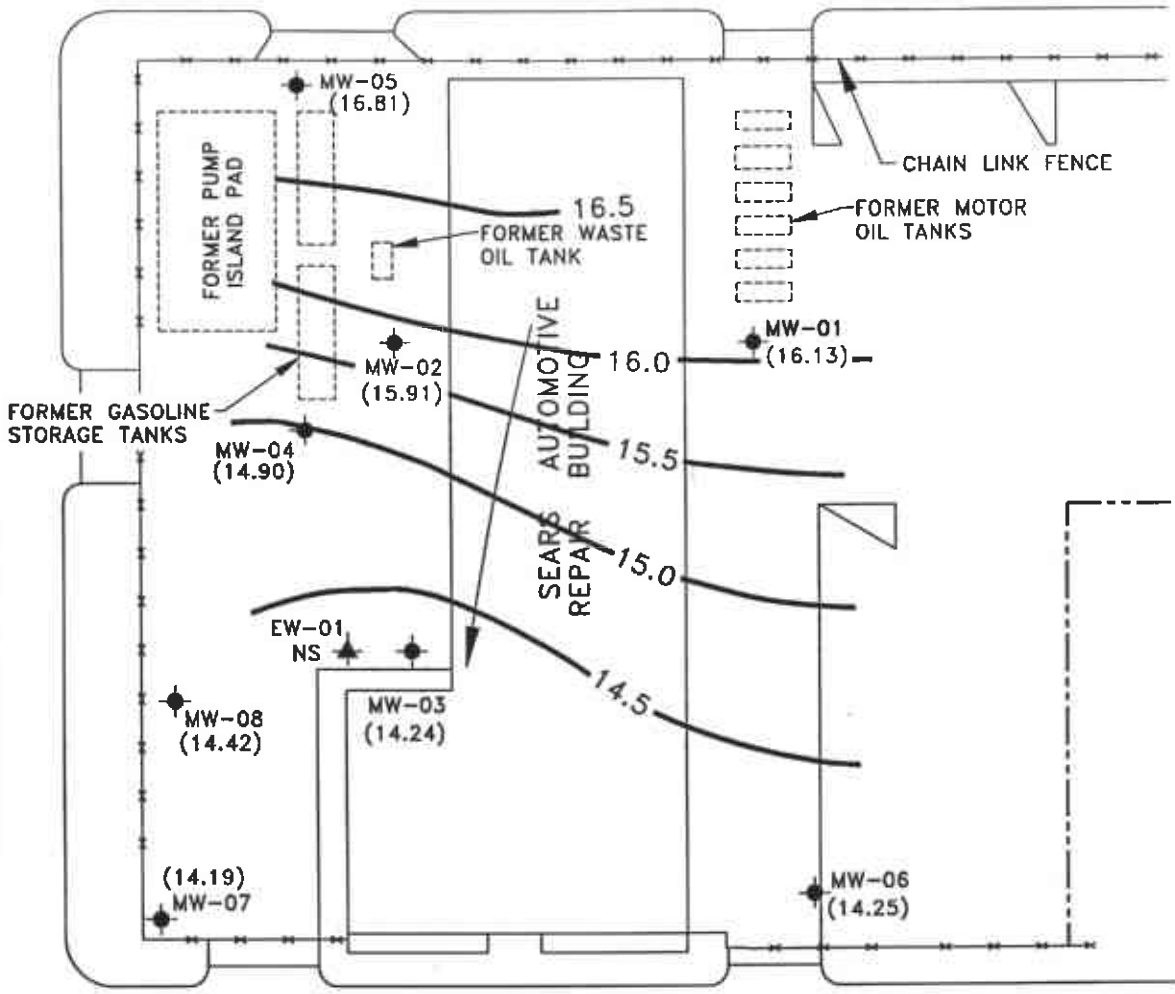
### **Figures**

1. Potentiometric Surface Map (11/28/97)
2. Concentrations of Benzene, TPH-as-Gasoline and TPH-as-Motor Oil in Groundwater (11/28/97)



27th STREET

TELEGRAPH AVENUE



26th STREET

MW-09  
NS

**LEGEND**



MONITORING WELL



EXTRACTION WELL

( )

POTENTIOMETRIC SURFACE ELEVATION (FT)

NS

NOT SURVEYED

SPH

SEPARATE-PHASE HYDROCARBONS



POTENTIOMETRIC SURFACE CONTOUR



GROUNDWATER FLOW DIRECTION



NOTE:

1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.

**FLUOR DANIEL GTI**



**POTENTIOMETRIC SURFACE MAP  
(11/28/97)**

CLIENT:  
SEARS, ROEBUCK AND CO.  
SITE NO. 1058

FILE:  
PSMN2897 (1:40)

PROJECT NO.:  
020200281

PM

PE/RG

LOCATION:  
2633 TELEGRAPH AVENUE  
OAKLAND, CALIFORNIA

REV.

FIGURE:

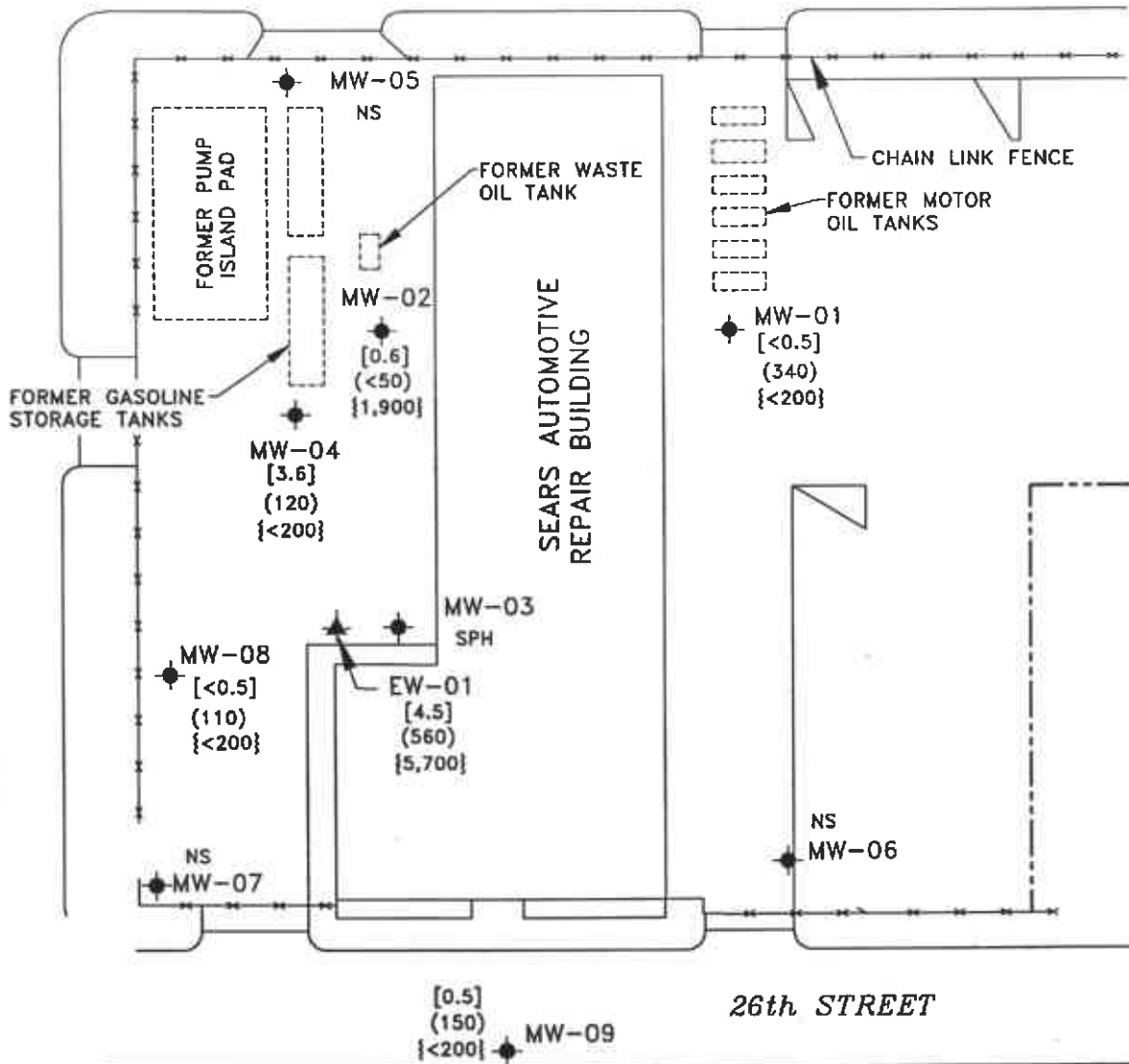
DES. ES DET. ML DATE: 1/6/98

1



27th STREET

TELEGRAPH AVENUE



### LEGEND

- MONITORING WELL
- EXTRACTION WELL
- [ ] BENZENE CONCENTRATIONS [ug/l]
- ( ) TPH-AS-GASOLINE (ug/l)
- { } TPH-AS-MOTOR OIL [ug/l]
- NS NOT SAMPLED
- SPH SEPARATE-PHASE HYDROCARBONS



**FLUOR DANIEL GTI**



## CONCENTRATIONS OF BENZENE, TPH-AS GASOLINE & TPH-AS-MOTOR OIL IN GROUNDWATER (11/28/97)

CLIENT: SEARS, ROEBUCK AND CO. SITE NO. 1058	FILE: BENN2897	PROJECT NO.: 020200281	PM	PE/RG EKS/1/98
	REV.	FIGURE: 2		
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	DES. ES	DET. ML	DATE: 1/6/98	

## **ATTACHMENT 2**

### **Tables**

1. Summary of Historical Groundwater Monitoring Data
2. Summary of Historical Groundwater Sample 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 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-1	26.20	12/30/92	10.60	--	--	15.60
		02/26/93	10.14	--	--	16.06
		03/24/93	10.48	--	--	15.72
		04/27/93	11.30	--	--	14.90
		05/28/93	11.43	--	--	14.77
		06/21/93	11.71	--	--	14.49
		07/22/93	11.87	--	--	14.33
		08/13/93	11.94	--	--	14.26
		09/16/93	12.05	--	--	14.15
		10/22/93	12.00	--	--	14.20
		11/03/93	12.10	--	--	14.10
		11/24/93	11.97	--	--	14.23
		12/01/93	11.46	--	--	14.74
		12/27/93	11.58	--	--	14.62
		01/05/94	11.69	--	--	14.51
		02/08/94	11.87	--	--	14.33
		03/09/94	11.08	--	--	15.12
		04/01/94	11.47	--	--	14.73
		05/10/94	10.77	--	--	15.43
		06/30/94	11.82	--	--	14.38
		07/28/94	11.90	--	--	14.30
		08/31/94	11.94	--	--	14.26
		09/27/94	12.04	--	--	14.16
		10/28/94	12.06	--	--	14.14
		11/15/94	10.02	--	--	16.18
		12/01/94	10.61	--	--	15.59
		01/04/95	9.93	--	--	16.27
		02/01/95	9.56	--	--	16.64
		03/08/95	10.51	--	--	15.69
		04/03/95	NM	NM	NA	NA
		05/18/95	10.80	--	--	15.40
		06/09/95	11.18	--	--	15.02
		07/13/95	11.27	--	--	14.93
		08/03/95	11.48	--	--	14.72
		08/29/95	11.56	--	--	14.64
		09/15/95	11.71	--	--	14.49
		10/20/95	11.80	--	--	14.40
		11/15/95	11.61	--	--	14.59
		01/15/96	11.21	--	--	14.99
		03/05/96	9.35	--	--	16.85
		04/19/96	10.60	--	--	15.60
		05/10/96	11.18	--	--	15.02
06/03/96	10.90	--	--	15.30		
09/04/96	11.31	--	--	14.89		
12/02/96	10.61	--	--	15.59		
02/26/97	10.31	--	--	15.89		
06/09/97	11.25	--	--	14.95		
08/25/97	11.15	--	--	15.05		
11/28/97	10.07	--	--	16.13		

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

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-2	26.50	12/30/92	10.65	--	--	15.85
		02/26/93	10.56	--	--	15.94
		03/24/93	10.52	--	--	15.98
		04/27/93	11.17	--	--	15.33
		05/28/93	11.12	--	--	15.38
		06/21/93	11.41	--	--	15.09
		07/22/93	11.50	--	--	15.00
		08/13/93	11.54	--	--	14.96
		09/16/93	11.62	--	--	14.88
		10/22/93	11.57	--	--	14.93
		11/03/93	11.65	--	--	14.85
		11/24/93	11.52	--	--	14.98
		12/01/93	11.08	--	--	15.42
		12/27/93	11.27	--	--	15.23
		01/05/94	11.39	--	--	15.11
		02/08/94	11.49	--	--	15.01
		03/09/94	11.06	--	--	15.44
		04/01/94	11.25	--	--	15.25
		05/10/94	10.83	--	--	15.67
		06/30/94	11.44	--	--	15.06
		07/28/94	11.48	--	--	15.02
		08/31/94	11.56	--	--	14.94
		09/27/94	11.61	--	--	14.89
		10/28/94	11.65	--	--	14.85
		11/15/94	9.65	--	--	16.85
		12/01/94	10.71	--	--	15.79
		01/04/95	10.11	--	--	16.39
		02/01/95	10.38	--	--	16.12
		03/08/95	10.80	--	--	15.70
		04/03/95	10.61	--	--	15.89
		05/18/95	10.95	--	--	15.55
		06/09/95	11.13	--	--	15.37
		07/13/95	11.15	--	--	15.35
		08/03/95	11.26	--	--	15.24
		08/29/95	11.32	--	--	15.18
		09/15/95	11.42	--	--	15.08
		10/20/95	11.42	--	--	15.08
		11/15/95	11.37	--	--	15.13
		01/15/96	11.10	--	--	15.40
		03/05/96	10.24	--	--	16.26
04/19/96	10.84	--	--	15.56		
05/10/96	11.13	--	--	15.37		
06/03/96	10.94	--	--	15.56		
09/04/96	11.24	--	--	15.26		
12/02/96	10.80	--	--	15.70		
02/26/97	10.70	--	--	15.80		
06/09/97	11.10	--	--	15.40		
08/25/97	11.05	--	--	15.45		
11/28/97	10.59	--	--	15.91		

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

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-3	26.34	12/30/92	12.43	--	--	13.91
		02/26/93	12.21	--	--	14.13
		03/24/93	12.36	--	--	13.98
		04/27/93	12.70	--	--	13.64
		05/28/93	12.72	--	--	13.62
		06/21/93	12.87	--	--	13.47
		07/22/93	12.92	--	--	13.42
		08/13/93	12.96	--	--	13.38
		09/16/93	13.01	12.97	0.04	13.36
		10/22/93	NM	12.96	NA	NA
		11/03/93	13.13	13.02	0.11	13.30
		11/24/93	12.94	12.92	0.02	13.42
		12/01/93	12.71	12.69	0.02	13.65
		12/27/93	12.77	12.73	0.04	13.60
		01/05/94	12.85	12.83	0.02	13.51
		02/08/94	12.37	--	--	13.97
		03/09/94	12.53	--	--	13.81
		04/01/94	12.64	--	--	13.70
		05/10/94	12.32	--	--	14.02
		06/30/94	12.84	12.82	0.02	13.51
		07/28/94	12.93	12.89	0.04	13.44
		08/31/94	13.04	13.01	0.03	13.32
		09/27/94	13.13	13.02	0.11	13.30
		10/28/94	13.30	13.08	0.22	13.22
		11/15/94	11.05	11.02	0.03	15.31
		12/01/94	11.90	11.88	0.02	14.46
		01/04/95	11.80	11.76	0.01	14.55
		02/01/95	12.00	11.98	0.02	14.36
		03/08/95	12.35	12.30	0.05	14.03
		04/03/95	12.09	12.05	0.04	14.28
		05/18/95	12.43	12.40	0.03	13.93
		06/09/95	12.60	12.58	0.02	13.76
		07/13/95	12.55	12.46	0.09	13.87
		08/03/95	12.64	12.61	0.03	13.73
		08/29/95	12.65	12.62	0.03	13.71
		09/15/95	13.00	12.86	0.14	13.45*
		10/20/95	12.86	12.03	0.03	13.50*
		11/15/95	12.81	12.74	0.07	13.59*
		01/15/96	12.60	12.47	0.13	13.84*
		03/05/96	11.68	11.64	0.04	14.69
04/19/96	12.36	12.34	0.02	14.00		
05/10/96	11.93	11.91	0.02	14.43		
06/03/96	12.93	12.50	0.43	13.75		
09/04/96	12.60	12.55	0.05	13.79		
12/02/96	12.11	12.00	0.03	14.25		
02/26/97	12.03	12.02	0.01	14.32		
06/09/97	12.39	12.35	0.04	13.98		
08/25/97	12.28	12.25	0.03	14.04		
11/28/97	12.13	12.10	0.03	14.24		

\* Corrected elevations. Review of calculations indicated that these elevations were incorrect in past reports.



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

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-4	26.17	12/30/92	11.53	--	Sheen	14.64
		02/26/93	11.35	--	--	14.82
		03/24/93	11.46	--	--	14.71
		04/27/93	11.74	--	--	14.43
		05/28/93	11.77	--	--	14.40
		06/21/93	11.92	--	--	14.25
		07/22/93	11.95	--	--	14.22
		08/13/93	12.01	--	--	14.16
		09/16/93	12.08	--	--	14.09
		10/22/93	12.03	--	--	14.14
		11/03/93	12.10	--	--	14.07
		11/24/93	12.02	--	--	14.15
		12/01/93	11.78	--	--	14.99
		12/27/93	11.80	--	--	14.97
		01/05/94	11.91	--	--	14.26
		02/08/94	11.85	--	--	14.32
		03/09/94	11.61	--	--	14.56
		04/01/94	11.73	--	--	14.44
		05/10/94	11.49	--	--	14.68
		06/30/94	11.90	--	--	14.20
		07/28/94	11.97	--	--	14.27
		08/31/94	12.06	--	--	14.11
		09/27/94	12.11	--	--	14.06
		10/28/94	12.18	--	--	13.99
		11/15/94	10.72	--	--	15.45
		12/01/94	11.37	--	--	14.80
		01/04/95	11.20	--	--	14.97
		02/01/95	11.16	--	--	15.01
		03/08/95	11.49	--	--	14.68
		04/03/95	11.35	--	--	14.82
		05/18/95	11.56	--	--	14.61
		06/09/95	11.72	--	--	14.45
		07/13/95	11.72	--	--	14.45
		08/03/95	11.81	--	--	14.36
		08/29/95	11.88	--	--	14.29
		09/15/95	11.99	--	--	14.18
		10/20/95	12.00	--	--	14.17
		11/15/95	11.96	--	--	14.21
		01/15/96	11.71	--	--	14.46
		03/05/96	11.02	--	--	15.15
04/19/96	11.51	--	--	14.46		
05/10/96	11.74	--	--	14.43		
06/03/96	11.60	--	--	14.57		
09/04/96	11.85	--	--	14.32		
12/02/96	11.45	--	--	14.72		
02/26/97	11.42	--	--	14.75		
06/09/97	11.70	--	--	14.47		
08/25/97	11.63	--	--	14.54		
11/28/97	11.27	--	--	14.90		

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

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-5	26.98	12/30/92	10.50	--	--	16.48
		02/26/93	10.12	--	--	16.86
		03/24/93	10.31	--	--	16.67
		04/27/93	10.75	--	--	16.23
		05/28/93	10.80	--	--	16.18
		06/21/93	10.94	--	--	16.04
		07/22/93	11.01	--	--	15.97
		08/13/93	11.07	--	--	15.91
		09/16/93	11.18	--	--	15.60
		10/22/93	11.19	--	--	15.79
		11/03/93	11.23	--	--	15.75
		11/24/93	12.00	--	--	14.98
		12/01/93	10.84	--	--	16.14
		12/27/93	10.81	--	--	16.17
		01/05/94	10.96	--	--	16.02
		02/08/94	10.94	--	--	16.04
		03/09/94	10.54	--	--	16.44
		04/01/94	10.77	--	--	16.21
		05/10/94	10.44	--	--	16.54
		06/30/94	10.88	--	--	16.10
		07/28/94	10.98	--	--	16.00
		08/31/94	11.07	--	--	15.91
		09/27/94	11.12	--	--	15.86
		10/28/94	11.21	--	--	15.77
		11/15/94	10.05	--	--	16.93
		12/01/94	10.39	--	--	16.59
		01/04/95	10.18	--	--	16.80
		02/01/95	9.93	--	--	17.05
		03/08/95	10.35	--	--	16.63
		04/03/95	10.15	--	--	16.83
		05/18/95	10.43	--	--	16.55
		06/09/95	10.62	--	--	16.36
		07/13/95	10.76	--	--	16.22
		08/03/95	10.82	--	--	16.16
		08/29/95	10.91	--	--	16.07
		09/15/95	11.00	--	--	15.98
		10/20/95	11.02	--	--	15.96
		11/15/95	11.95	--	--	15.03
		01/15/96	10.57	--	--	16.41
		03/05/96	9.81	--	--	17.17
04/19/96	10.32	--	--	16.66		
05/10/96	10.56	--	--	16.40		
06/03/96	10.46	--	--	16.52		
09/04/96	10.86	--	--	16.12		
12/02/96	10.45	--	--	16.53		
02/26/97	10.38	--	--	16.60		
06/09/97	10.78	--	--	16.20		
08/25/97	10.69	--	--	16.29		
11/28/97	10.15	--	--	16.83		

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

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-6	24.32	12/27/93	11.24	--	--	13.08
		01/05/94	11.39	--	--	12.93
		02/08/94	11.15	--	--	13.17
		03/09/94	10.97	--	--	13.35
		04/01/94	11.25	--	--	13.07
		05/10/94	10.78	--	--	13.54
		06/30/94	11.49	--	--	12.83
		07/28/94	11.59	--	--	12.73
		08/31/94	11.56	--	--	12.76
		09/27/94	11.65	--	--	12.67
		10/28/94	11.59	--	--	12.73
		11/15/94	10.24	--	--	14.08
		12/01/94	10.30	--	--	14.02
		01/04/95	9.81	--	--	14.51
		02/01/95	10.01	--	--	14.31
		03/08/95	10.64	--	--	13.68
		04/03/95	10.26	--	--	14.06
		05/18/95	10.81	--	--	13.51
		06/09/95	11.07	--	--	13.25
		07/13/95	10.91	--	--	13.41
		08/03/95	11.15	--	--	13.17
		08/29/95	11.09	--	--	13.23
		09/15/95	11.35	--	--	12.97
		10/20/95	11.32	--	--	13.00
		11/15/95	11.20	--	--	13.12
		01/15/96	10.83	--	--	13.49
		03/05/96	9.60	--	--	14.72
		04/19/96	10.71	--	--	13.61
		05/10/96	11.05	--	--	13.27
		06/03/96	10.91	--	--	13.41
09/04/96	10.84	--	--	13.48		
12/02/96	10.46	--	--	13.86		
02/26/97	10.46	--	--	13.86		
06/09/97	10.90	--	--	13.42		
08/25/97	10.84	--	--	13.48		
11/28/97	10.07	--	--	14.25		

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

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-7	24.88	12/27/93	11.80	--	--	13.08
		01/05/94	11.53	--	--	13.35
		02/08/94	11.90	--	--	12.98
		03/09/94	11.23	--	--	13.65
		04/01/94	11.34	--	--	13.54
		05/10/94	11.02	--	--	13.86
		06/30/94	11.49	--	--	13.39
		07/28/94	11.58	--	--	13.30
		08/31/94	11.69	--	--	13.19
		09/27/94	11.73	--	--	13.15
		10/28/94	11.77	--	--	13.11
		11/15/94	10.29	--	--	14.59
		12/01/94	10.89	--	--	13.99
		01/04/95	10.77	--	--	14.11
		02/01/95	10.70	--	--	14.18
		03/08/95	11.05	--	--	13.83
		04/03/95	10.88	--	--	14.00
		05/18/95	11.12	--	--	13.76
		06/09/95	11.25	--	--	13.63
		07/13/95	11.15	--	--	13.73
		08/03/95	11.32	--	--	13.56
		08/29/95	11.53	--	--	13.35
		09/15/95	11.65	--	--	13.23
		10/20/95	11.64	--	--	13.24
		11/15/95	11.60	--	--	13.28
		01/15/96	11.07	--	--	13.81
		03/05/96	10.50	--	--	14.38
		04/19/96	12.02	--	--	12.86
		05/10/96	11.14	--	--	13.74
		06/03/96	11.10	--	--	13.78
09/04/96	11.45	--	--	13.43		
12/02/96	10.96	--	--	13.92		
02/26/97	11.02	--	--	13.86		
06/09/97	11.34	--	--	13.54		
08/25/97	11.25	--	--	13.63		
11/28/97	10.69	--	--	14.19		

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

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-8	26.12	12/27/93	12.45	--	--	13.67
		01/05/94	12.57	--	--	13.55
		02/08/94	12.02	--	--	14.10
		03/09/94	12.22	--	--	13.90
		04/01/94	12.33	--	--	13.79
		05/10/94	12.00	--	--	14.12
		06/30/94	12.52	--	--	13.60
		07/28/94	12.61	--	--	13.51
		08/31/94	12.72	--	--	13.40
		09/27/94	12.80	--	--	13.32
		10/28/94	12.84	--	--	13.28
		11/15/94	11.72	--	--	14.40
		12/01/94	11.87	--	--	14.25
		01/04/95	11.75	--	--	14.37
		02/01/95	11.64	--	--	14.48
		03/08/95	12.04	--	--	14.08
		04/03/95	11.86	--	--	14.26
		05/18/95	12.11	--	--	14.01
		06/09/95	12.34	--	--	13.78
		07/13/95	12.37	--	--	13.75
		08/03/95	12.50	--	--	13.62
		08/29/95	12.55	--	--	13.57
		09/15/95	12.70	--	--	13.42
		10/20/95	12.69	--	--	13.43
		11/15/95	12.67	--	--	13.45
		12/11/95	11.80	--	--	14.32
		01/15/96	12.38	--	--	13.74
		03/05/96	11.44	--	--	14.68
		04/19/96	10.80	--	--	15.32
		05/10/96	12.40	--	--	13.72
		06/03/96	12.26	--	--	13.86
09/04/96	12.51	--	--	13.61		
12/02/96	11.99	--	--	14.13		
02/26/97	11.98	--	--	14.14		
06/09/97	12.36	--	--	13.76		
08/25/97	12.25	--	--	13.87		
11/28/97	11.70	--	--	14.42		
MW-9	N/A	12/02/96	11.52	--	--	N/A
		02/26/97	11.55	--	--	N/A
		06/09/97	11.91	--	--	N/A
		08/25/97	11.80	--	--	N/A
		11/28/97	11.15	--	--	N/A
EW-1	N/A	12/02/96	12.17	--	--	N/A
		02/26/97	12.13	--	--	N/A
		06/09/97	12.46	--	--	N/A
		08/25/97	12.35	--	--	N/A
		11/28/97	12.12	--	--	N/A

Notes: "--" indicates no datum for the cell, including "product not detected"  
 NM = Not monitored  
 N/A = Not Available

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

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TPH as Motor Oil	TPH (mg/l)	Dissolved Metals	MTBE
MW-1	12/30/92	1	1	2	2	--	--	1	--	--
	03/24/93	0.4	1	0.3	10	--	--	1	--	--
	06/21/93	<0.3	1	2	6	--	**<100	--	--	--
	09/16/93	<0.3	0.7	<0.3	7	--	**<100	--	--	--
	12/01/93	0.4	1	2	7	--	--	--	--	--
	12/30/93	--	--	--	--	--	<100	--	--	--
	03/09/94	<0.3	<0.3	1	4.2	--	<100	--	--	--
	06/30/94	0.6	0.7	2.4	15	--	<100	--	--	--
	09/27/94	0.9	0.5	1.4	10	--	<sup>o</sup> <250	--	--	--
	12/01/94	0.4	0.4	<0.3	6.6	--	<sup>o</sup> <250	--	--	--
	03/08/95	<0.3	0.6	<0.3	2.7	--	<sup>o</sup> <250	--	--	--
	06/09/95	<0.3	1.4	4.7	5.6	--	<sup>o</sup> <250	--	--	--
	08/29/95	0.3	0.9	3.9	2.8	--	<sup>o</sup> <250	--	--	--
	11/15/95	<0.5	<0.5	<0.5	27	--	<sup>o</sup> <200	--	--	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	--	<sup>o</sup> <200	--	--	--
	06/03/96	<0.5	<1.0	<1.0	3.4	340	<sup>o</sup> <200	--	--	--
	09/04/96	<0.5	<1.0	3.7	<2.0	390	310	--	--	--
	12/02/96	<0.5	<1.0	<1.0	2.7	400	<sup>o</sup> <200	--	--	--
	02/26/97	<0.5	<1.0	<1.0	4.5	390	<sup>o</sup> <200	--	--	--
	06/09/97	<0.5	<1.0	<1.0	2.3	340	<200	--	--	<10
08/25/97	<0.5	<0.5	<0.5	3	220	<200	--	--	<5	
11/28/97	<0.5	<0.5	<0.5	3	340	<200	--	--	6	
MW-2	12/30/92	0.7	<0.3	<0.3	3	190	--	1	<sup>a</sup> ND	--
	03/24/93	0.6	<0.3	<0.3	2	120	--	<1	<sup>a</sup> ND	--
	06/21/93	0.3	<0.3	<0.3	0.7	82	**<100	--	<sup>a</sup> ND	--
	09/16/93	<0.3	<0.3	<0.3	<0.5	28	**<100	--	<sup>a</sup> ND	--
	12/01/93	<0.3	<0.3	<0.3	1	68	--	--	<sup>a</sup> ND	--
	12/30/93	--	--	--	--	--	310	--	--	--
	03/09/94	<0.3	<0.3	<0.3	<0.5	47	<100	--	ND	--
	06/30/94	<0.3	<0.3	<0.3	<0.5	<10	100	--	ND	--
	09/27/94	<0.3	<0.3	<0.3	<0.5	<10	<sup>o</sup> <250	--	<sup>a</sup> 15	--
	12/01/94	<0.3	<0.3	<0.3	<0.5	54	<sup>o</sup> 1,300	--	<sup>a</sup> 6	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	<10	3,000	--	ND	--
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	2,000	--	ND	--
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	4,300	--	<sup>b</sup> 20	--
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	6,100	--	ND	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	3,200	--	ND	--
	06/04/96	<0.5	<1.0	<1.0	<2.0	<100	3,800	--	ND	--
	09/04/96	<0.5	<1.0	<1.0	<2.0	<100	3,100	--	--	--
	12/02/96	<0.5	<1.0	<1.0	<2.0	<100	2,200	--	--	--
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	2,100	--	--	--
	06/09/97	<0.5	<1.0	<1.0	<2.0	<100	2,400	--	--	<10
08/25/97	<0.5	<0.5	<0.5	<2.0	<50	<200	--	--	<5	
11/28/97	0.6	<0.5	<0.5	<2.0	<50	1,900	--	--	<5	

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

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TPH as Motor Oil	TPH (mg/l)	Dissolved Metals	MTBE
MW-3	12/30/92	11	0.9	<0.3	2	910	SPH	20	*ND	--
	03/24/93	28	0.7	1	8	3,300	SPH	28	**15	--
	06/21/93	21	5	2	19	**2,600	32,000	26	°5	--
	09/16/93	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	12/01/93	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	03/09/94	2	1.4	4.5	13	2,000	**5,700	**63	*ND	--
	06/30/94	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	09/27/94	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	12/01/94	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	03/08/95	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	06/09/95	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	08/29/95	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	11/15/95	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	03/05/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	06/03/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	09/04/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	12/02/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
	02/26/97	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	--
06/09/97	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
08/25/97	5	6	5	16	5,600	110,000	--	--	SPH	
11/28/97	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	<30 SPH
MW-4	12/30/92	2	<0.3	1	<0.5	1,200	--	<1	*ND	--
	03/24/93	<0.3	<0.3	<0.3	<0.5	750	--	2	**7	--
	06/21/93	<0.3	2	<0.3	0.5	660	19,000	--	*ND	--
	09/16/93	0.3	<0.3	2	3	410	2,500	--	*ND	--
	12/01/93	<0.3	<0.3	<0.3	<0.5	150	390	--	*ND	--
	03/09/94	0.7	0.8	2	3.6	1,500	780	--	*ND	--
	06/30/94	<0.3	1.7	0.5	1.0	450	130	--	ND	--
	09/27/94	0.5	<0.3	<0.3	<0.5	110	1,100	--	ND	--
	12/01/94	0.6	0.5	0.3	0.8	290	580	--	*<5	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	360	1,000	--	*<5	--
	06/09/95	<0.3	0.4	<0.3	<0.5	64	1,100	--	*<5	--
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	1,200	--	*<5	--
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	2,100	--	*ND	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	590	--	*ND	--
	06/03/96	<0.5	<1.0	<1.0	<2.0	<100	860	--	ND	--
	09/04/96	<0.5	<1.0	<1.0	<2.0	<100	600	--	--	--
	12/02/96	<0.5	<1.0	<1.0	<2.0	<100	940	--	--	--
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	390	--	--	--
06/09/97	<0.5	<1.0	<1.0	<2.0	<100	630	--	--	<10	
08/25/97	<0.5	<0.5	<0.5	<2.0	<50	<200	--	--	<5	
11/28/97	3.6	3.9	3.7	12	120	<200	--	--	<5	

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

Sears Store 1058  
2633 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TPH as Motor Oil	TPH (mg/l)	Dissolved Metals	MTBE
MW-5	12/30/92	<0.3	<0.3	<0.3	<0.5	37	--	<1	<sup>b</sup> 5	--
	03/24/93	<0.3	<0.3	<0.3	0.5	19	--	2	<sup>a</sup> 341	--
	06/21/93	<0.3	<0.3	<0.3	<0.5	<10	<100	--	<sup>c</sup> ND	--
	09/16/93	0.3	<0.3	<0.3	1	<10	<100	--	<sup>c</sup> ND	--
	12/01/93	<0.3	<0.3	<0.3	1	17	--	--	<sup>c</sup> ND	--
	12/30/93	--	--	--	--	--	<100	--	--	--
	03/09/94	<0.3	<0.3	<0.3	<0.5	22	<100	--	<sup>c</sup> ND	--
	06/30/94	<0.3	<0.3	<0.3	<0.5	<10	<100	--	ND	--
	09/27/94	0.5	0.4	<0.3	<0.5	<10	560	--	ND	--
	12/01/94	<0.3	<0.3	<0.3	<0.5	<10	<250	--	ND	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	<10	<250	--	ND	--
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	<sup>d</sup> 7	--
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	<sup>b</sup> 36	--
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	<200	--	ND	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	<200	--	ND	--
	06/03/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/04/96	<0.5	<1.0	<1.0	<2.0	<100	310	--	--	--
	12/02/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	<200	--	--	--
	06/09/97	NS	NS	NS	NS	NS	NS	NS	NS	NS
08/25/97	>0.5	<0.5	<0.5	<2.0	<50	<200	--	--	<5	
11/28/97	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-6	12/27/93	<0.3	<0.3	<0.3	<0.5	<10	<100	<1	<sup>a</sup> 70	--
	03/09/94	<0.3	<0.3	<0.3	<0.5	15	<100	--	<sup>c</sup> ND	--
	06/30/94	<0.3	<0.3	<0.3	<0.5	<10	<100	--	ND	--
	09/27/94	<0.3	<0.3	<0.3	<0.5	<10	<250	--	<sup>b</sup> 8	--
	12/01/94	<0.3	<0.3	<0.3	<0.5	<10	<250	--	<sup>b</sup> 32	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	<10	<250	--	ND	--
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	ND	--
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	<sup>b</sup> 24	--
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	<200	--	<sup>b</sup> 31	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	<200	--	ND	--
	06/03/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/04/96	<0.5	<1.0	<1.0	<2.0	<100	230	--	--	--
	12/02/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	<200	NS	NS	NS
06/09/97	NS	NS	NS	NS	NS	NS	NS	NS	NS	
08/25/97	<0.5	1.1	<0.5	<2.0	<50	<200	--	--	<5	
11/28/97	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-7	12/27/93	<0.3	<0.3	1	2	140	<100	<1	<sup>a</sup> 40	--
	03/09/94	<0.3	<1.0	1.5	4.1<	620	<100	--	<sup>c</sup> ND	--
	06/30/94	<0.3	<0.3	<0.3	0.5	33	<100	--	ND	--
	09/27/94	<0.3	<0.3	0.4	0.7	52	<sup>b</sup> <250	--	ND	--
	12/01/94	<0.3	<0.3	<0.3	1.1	<10	<sup>b</sup> <250	--	<sup>b</sup> 28	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	<10	<sup>c</sup> <250	--	ND	--
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	ND	--
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	<sup>b</sup> 13	--
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	<200	--	ND	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	270	--	ND	--
	06/03/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/04/96	<0.5	<1.0	<1.0	<2.0	<100	<200	--	--	--
	12/02/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	<200	NS	NS	NS
06/09/97	NS	NS	NS	NS	NS	NS	NS	NS	NS	
08/25/97	<0.5	<0.5	<0.5	<2.0	<50	<200	--	--	<5	
11/28/97	NS	NS	NS	NS	NS	NS	NS	NS	NS	



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

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TPH as Motor Oil	TPH (mg/l)	Dissolved Metals	MTBE
MW-8	12/27/93	0.4	4	0.4	1	390	<100	<1	*18	--
	03/09/94	0.6	0.8	0.5	1.5	420	<100	--	*ND	--
	06/30/94	0.9	<0.3	<0.3	1.1	250	<100	--	ND	--
	09/27/94	<0.3	<0.3	<0.3	<0.5	210	*<250	--	*g	--
	12/01/94	5.4	<0.3	0.7	1.3	230	*<250	--	*ND	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	230	*<250	--	ND	--
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	*<250	--	ND	--
	08/29/95	0.9	0.4	<0.3	0.8	200	*<250	--	*15	--
	11/15/95	0.58	<0.5	<0.5	0.54	120	--	--	*21	--
	12/11/95	--	--	--	--	--	*<200	--	--	--
	03/05/96	0.6	<1.0	<1.0	<2.0	<100	*<200	--	ND	--
	06/03/96	<0.5	<1.0	<1.0	<2.0	100	--	--	--	--
	09/04/96	<0.5	<1.0	<1.0	<2.0	110	<200	--	--	--
	12/02/96	<0.5	<1.0	<1.0	<2.0	110	<200	--	--	--
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	<200	--	--	--
	06/09/97	<0.5	<1.0	<1.0	<2.0	110	<200	--	--	<10
	08/25/97	<0.5	<0.5	<0.5	<2.0	70	<200	--	--	<5
11/28/97	<0.5	<0.5	<0.5	<2.0	110	<200	--	--	<5	
MW-9	12/02/96	<0.5	<1.0	<1.0	<2.0	210	250	--	--	--
	02/26/97	<0.5	<1.0	<1.0	<2.0	170	340	--	--	--
	06/09/97	0.8	<1.0	<1.0	<2.0	130	350	--	--	<10
	08/25/97	<0.5	0.8	<0.5	<2.0	110	<200	--	--	<5
	11/28/97	<0.5	0.5	0.9	<2.0	150	<200	--	--	<5
EW-1	09/04/96	<0.5	<1.0	<1.0	<2.0	1,100	1,700	--	--	--
	12/02/96	6.2	<1.0	<1.0	<2.0	1,000	14,000	--	--	--
	02/26/97	12	<1.0	<1.0	<2.1	1,200	2,100	--	--	--
	06/09/97	83	<1.0	<1.0	<2.0	1,400	12,000	--	--	13
	08/25/97	7.5	0.9	0.9	2.0	1,400	15,000	--	--	12
11/28/97	4.5	1.1	1.1	4.0	560	5,700	--	--	5	

Notes:

- "--" = No datum for the cell, including "not analyzed for this constituent."
- "<" = Compound was not detected above the laboratory reporting limits.
- mg/l = Milligrams per liter
- TPH = Total petroleum hydrocarbons
- ND = Non-detectable (detection limits for each metal is listed in laboratory reports, included in attachment 4)
- SPH = Separate phase hydrocarbon
- NS = Not sampled
- \* = Water samples were not filtered, analytical results represent total metals present, not dissolved concentrations.
- \*\* = Uncategorized hydrocarbon compound not included in this hydrocarbon concentration.
- a = Dissolved lead
- b = Dissolved lead only analyte detected
- c = Dissolved lead, cadmium, total chromium, nickel, and zinc.
- d = Cadmium only analyte detected.
- e = Hydrocarbon pattern not characteristic of motor oil.
- f = Uncategorized compounds included in concentration
- g = Zinc only analyte detected
- h = Chromium only analyte detected
- MTBE = Methyl Tert-Butyl Ether

**ATTACHMENT 3**

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

11/28

**SITE VISIT FORM**  
**Fluor Daniel GTI - Martinez, California**

Project: 20200281.00  
Site: SEARS/#1058/Oakland, CA  
Project Mgr: Eileen Brennan

Technician: *A. Merand*  
Scheduled: 11/24/97  
Site Mgr:

**PREPARATORY COMMENTS**

Visit Date: 11/28/97 Arrival Time: 10:00 Departure Time: 13:50

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 Tom Peacock 72 hrs in advance (510) 567-6782 DONE: 11/20/97 @ 1:05pm  
*J. Allen*

SITE ADDRESS: 2633 Telegraph Avenue, Oakland, CA

cc: Eileen Brennan

During any sampling activities, a minimum work zone will be defined by a 10ft by 10ft square centered around the monitor well and marked with 36" -high orange traffic cones with flag poles and flags 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.

BRING 9/16 BOLTS FOR ALL 8 WELLS. Need three (3) new drums for this site.

1. MARCH(1st)/SEPT(3rd): Monitor and sample all wells (MW-1 through MW-9 and EW-1) in the following order: MW-5, MW-1, MW-6, MW-7, MW-8, MW-2, MW-4, MW-3, MW-9 and the new extraction well (EW-1) located next to MW-3. USE DISPOSABLE BAILERS.

JUNE(2nd)/DEC(4th): Monitor all wells (MW-1 through MW-9, and EW-1). Sample seven (7) wells in the following order: MW-9, MW-1, MW-8, MW-2, MW-4, MW-3 and EW-1. USE DISPOSABLE BAILERS.

2. Record DTW, DTP, pH, Conductivity and temperature. NOTE: Recharge DTW.

3. Collect one trip blank and one duplicate from MW-4 and submit for BTEX-8020 only.

**SITE VISIT FORM**  
**Fluor Daniel GTI - Martinez, California**

Project: 20200281.00  
Site: SEARS/#1058/Oakland, CA  
Project Mgr: Eileen Brennan

Technician:  
Scheduled: 11/24/97  
Site Mgr:

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

4. Complete detailed drum count. Check with owner if drums can be left in corner. Label drums properly (Non Haz).
5. Submit samples to AEN Lab. in Pleasant Hill, CA ph# (510) 930-9090. To be analyzed for BTEX/MTBE/TPH-G (EPA 8020/8015), and TPH-Motor Oil (EPA 8015).

Note: Add TPH-MO to concentration map

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

HOURS ESTIMATED FOR MARCH/SEPT 6.0

JUNE/DEC 5.0

Hours Estimated	5.00	Hours Used
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**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

**SITE VISIT FORM  
FLUOR DANIEL GTI**

Project: Sears/#1058/Oakland  
Store #: 1058/2633 Telegraph  
Project Manager: Mike Wray

Technician:  
Schedule:  
Job No. 020200281.030543

**TECHNICIAN'S COMMENTS**


**TOTAL HOURS ESTIMATED:**

**HOURS USED:**

**TRAVEL TIME ESTIMATED:**

**TRAVEL TIME USED:**

\_\_\_\_\_  
**TECHNICIAN**

**SITE VISIT FORM**  
**Fluor Daniel GTI - Martinez, California**

Project: 20200281.00  
Site: SEARS/#1058/Oakland, CA  
Project Mgr: Eileen Brennan

Technician:  
Scheduled: 11/24/97  
Site Mgr:

**TECHNICIAN'S COMMENTS**

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Total Hours Estimated	5.00	Total Hours Used	
Travel Time Estimated	1.50	Travel Time Used	

\_\_\_\_\_  
Technician

**SITE VISIT FORM  
FLUOR DANIEL GTI**

Project: Sears/#1058/Oakland  
Store #: 1058/2633 Telegraph  
Project Manager: Eileen Brennan

Technician: H. Merin  
Schedule: 11/28/97  
Job No. 020200281.030543

**WELL WATER SAMPLING - TASK Nr: 030543 [QUARTERLY]**  
Gauge wells for volume of water & bail 3 well Vol.s. DECON  
**PREPARATORY COMMENTS**

Visit Date: 11/28/97 Arrival Time: 10:00 Departure Time: \_\_\_\_\_

Called Project Manager? YES  NO  Time: \_\_\_\_\_ Who: \_\_\_\_\_

If you did not call, why not? NOT IN OFFICE

Weather: Rain Snow  Sunny  Cloudy Temperature: 65°

**Well ID**

MW-1:	DTB_21.72	DTW <u>10.07</u>	SAT. THICK _____	#GAL. BAILED _____
MW-2:	DTB_21.79	DTW <u>10.59</u>	SAT. THICK _____	#GAL. BAILED _____
MW-3:	DTB_24.67	DTW <u>12.13</u>	SAT. THICK <u>12.10</u>	#GAL. BAILED _____
MW-4:	DTB_22.97	DTW <u>11.27</u>	SAT. THICK _____	#GAL. BAILED _____
MW-5:	DTB_25.27	DTW <u>10.15</u>	SAT. THICK _____	#GAL. BAILED _____
MW-6:	DTB_22.05	DTW <u>10.07</u>	SAT. THICK _____	#GAL. BAILED _____
MW-7:	DTB_21.70	DTW <u>10.69</u>	SAT. THICK _____	#GAL. BAILED _____
MW-8:	DTB_22.14	DTW <u>11.26</u>	SAT. THICK _____	#GAL. BAILED _____
MW-9:	DTB_20.30	DTW <u>11.15</u>	SAT. THICK _____	#GAL. BAILED _____
EW-1:	DTB_22.30	DTW <u>12.12</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?

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 020200281.030543

Date: 11/28/77  
 Page 2 of 7  
 Project Manager: Eileen Brennan

Well ID: Mw-1  
 Well Diameter: 2

DTW Measurements  
 Initial: 10.07 Calc Well Volume: 1.9 gal  
 Recharge: \_\_\_\_\_ Well Volume: X3 5.9 gal  
 DTB: 22.14

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

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

Time	Temp <u>X</u> C ____ F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
10:40	18.7	0.33	5.50	1	↓ CLOUDY	
10:41	19.5	0.32	5.62	2		
10:42	20.6	0.32	5.69	3		
10:43	21.8	0.33	5.78	4		
10:44	22.3	0.32	5.89	5		
10:45	22.8	0.32	6.08	6		
10:47	22.9	0.32	6.18	8		
10:50	23.0	0.32	6.22	10		





Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 020200281.030543

Date: 11/28/97  
 Page 3 of 7  
 Project Manager: Eileen Brennan

Well ID: MW-8  
 Well Diameter: 2

DTW Measurements:  
 Initial: 11.70 Calc Well Volume: 1.7 gal  
 Recharge: \_\_\_\_\_ Well Volume: X3 5.1 gal  
 DTB: 22.14

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

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

Time	Temp <u>X</u> C ____ F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
11:26	23.4	0.48	6.40	1	cloudy	
11:27	23.2	0.47	6.43	2	↓	
11:28	23.2	0.47	6.43	3		
11:29	23.4	0.47	6.41	4		
11:30	23.5	0.48	6.42	5		

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 020200281.030543

Date: 11/28/97  
 Page 4 of 7  
 Project Manager: Eileen Brennan

Well ID: MW-2  
 Well Diameter: 2

DTW Measurements:  
 Initial: 10.59 Calc Well Volume: 118 gal  
 Recharge: \_\_\_\_\_ Well Volume: X3 514 gal  
 DTB: 21.79

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

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

Time	Temp <u>X</u> C ____ F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
11:40	23.1	0.41	6.40	1	cloudy	
11:41	23.3	0.40	6.44	2	↓	
11:42	23.2	0.40	6.48	3		
11:43	23.2	0.40	6.48	4		
11:44	23.2	0.40	6.49	5		





Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 020200281.030543

Date: 11/28/97  
 Page 7 of 7  
 Project Manager: Eileen Brennan

Well ID: BW-1  
 Well Diameter: 4

DTW Measurements:  
 Initial: 12.12 Calc Well Volume: 666 gal  
 Recharge: \_\_\_\_\_ Well Volume: x3 199 gal  
 DTB: 22.30

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

Time	Temp <u>X</u> C ____ F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
12:14	22.8	0.49	6.55	5	cloudy	
12:17	22.9	0.50	6.56	10	↓	
12:20	22.9	0.50	6.58	15		
12:22	22.9	0.50	6.57	20		

SEARS DRUM INVENTORY FORM

Completion Date: 11/28/97

Sears Store Number 1058 City/State OAKland

Accumulation Start Date 11/28/97

FDGTI Representative H. Merino

Drum Storage Location BY MW 6

CONTENTS	# OF DRUMS	*DRUM ID (A,B,C...)	LID TYPE: (OPEN OR BUNG)	**LABEL TYPE: HAZARD NON-HAZ UNCLASS	DRUM DESCRIPTION: COLOR CONDITION MARKINGS
FLUIDS					
WASHWATER RINSATE (GAS)	2	A, B	BOTH	NON-CLASS	WHITE TOP BLACK BOTTOM
WASHWATER RINSATE (OIL)					
MOTOR OIL/WATER MIXTURES					
MOTOR OIL					
USED OIL/WATER MIXTURES					
USED OIL					
HEATING OIL/DIESEL FUEL AND WATER MIXTURES					
HEATING OIL/DIESEL FUEL					
GASOLINE/WATER MIXTURES					
GASOLINE					
HYDRAULIC OIL/WATER MIXTURES					
HYDRAULIC OIL					
SLUDGES					
MOTOR OIL SLUDGE/TANK BOTTOMS					
USED OIL SLUDGE/TANK BOTTOMS					
HEATING OIL/DIESEL FUEL SLUDGE/TANK BOTTOMS					
GASOLINE SLUDGE/TANK BOTTOMS					
HYDRAULIC OIL SLUDGE/TANK BOTTOMS					
OTHER—if soil, complete Page 2 of 3					
DESCRIPTION (NO SORBENT PADS or PPE IN DRUMS):					

**\*EACH DRUM MUST HAVE A UNIQUE LETTER SPRAY-PAINTED ON THE BODY OF THE DRUM.**

**Letter must be at least 10 inches tall. No two drums can have same letter at the same time.**

**\*\*All labels should be "Unclassified" unless specifically directed otherwise by Project Manager.**

**COMPLETE PAGE 3 OF 3 WHEN EVER DRUMS ARE PRESENT OR GENERATED.**

cc PO 12/8

## SEARS SOIL INVENTORY FORM

Page 2 of 3

Completion Date: 11/28/97

Store Number 10158 City/State OAKLAND CA  
 Accumulation Start Date 11/28/97  
 FDGTI Representative H. Medina  
 Soil Storage Location NONE

SOIL CONTAMINANTS	# OF DRUMS*	CUBIC YARDS	DIMENSIONS OF PILE
VIRGIN PETROLEUM OIL (motor, heating, diesel)	<b>N/A</b>		
HYDRAULIC OIL			
USED OIL			
GASOLINE			

\* IF DRUMS ARE GENERATED, COMPLETE PAGE 3 OF 3



## SEARS DRUM INVENTORY FORM

Page 3 of 3

Completion Date: 11/28/97Store Number W58City/State OAKLAND CAFDGTI Representative Amber

THERE SHOULD NEVER BE 2 DRUMS WITH THE SAME DRUM ID PRESENT AT A SEARS STORE 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	11/28/97	PURGE H <sub>2</sub> O	WELL WATER	NO	53
B	11/28/97	PURGE H <sub>2</sub> O	WELL WATER	NO	20
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					
O					
P					
Q					
R					
S					
T					
U					
V					
W					
X					
Y					
Z					

## EXAMPLE

A	5/19/97	well purge water	MW-1 thru MW-5	no	50
---	---------	------------------	----------------	----	----

Reporting Information:

1. Client: FLUOR DANIEL GTT  
 Address: 25 SHAW DR.  
SUITE D MEDFORD  
 Contact: ELLEN BRENNAN  
 Alt. Contact: \_\_\_\_\_

American Environmental Network

3440 Vincent Road, Pleasant Hill, CA 94523  
 Phone (510) 930-9090  
 FAX (510) 930-0256



REQUEST FOR ANALYSIS / CHAIN OF CUSTODY

Lab Job Number: \_\_\_\_\_  
 Lab Destination: \_\_\_\_\_  
 Date Samples Shipped: \_\_\_\_\_  
 Lab Contact: \_\_\_\_\_  
 Date Results Required: \_\_\_\_\_  
 Date Report Required: \_\_\_\_\_  
 Client Phone No.: (510) 370-3990  
 Client FAX No.: (510) 370-3991

Address Report To:  
 2. SAME @ #1

Send Invoice To:  
 3. SAME @ #1 + 2

Send Report To: 1 or 2 (Circle one)

Client P.O. No.: \_\_\_\_\_ Client Project I.D. No.: SEARCH 1058  
02020028103054

Sample Team Member(s): A. Meier

ANALYSIS					
TRIMMIAL					
EXIMBEPH6					
SO2 O					

Lab Number	Client Sample Identification	Air Volume	Date/Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.	ANALYSIS						Comments / Hazards	
MW-1			11/15/97 12:40	SW	HLLONG	6	Cont	X	X						
MW9			12:50			6		X	X						
MW8			13:00			6		X	X						
MW3			13:10			6		X	X						
MW9			13:20			6		X	X						
FW-1			13:30			6		X	X						
DUP MW			13:35							X					
TBLB										X					

Relinquished by: (Signature) <u>[Signature]</u>	DATE: <u>12-1-97</u> TIME: <u>15:25</u>	Received by: (Signature) <u>Rick Gilmore</u>	DATE: <u>12-1-97</u> TIME: <u>15:25</u>
Relinquished by: (Signature)	DATE	Received by: (Signature)	DATE
Relinquished by: (Signature)	DATE	Received by: (Signature)	DATE
Method of Shipment		Lab Comments	

\*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb. filter  
 4) PVC filter, diam. \_\_\_\_\_ pore size \_\_\_\_\_ 5) Charcoal tube 6) Silica gel tube 7) Water 8) Soil 9) Bulk Sample  
 10) Other \_\_\_\_\_ 11) Other \_\_\_\_\_

**ATTACHMENT 4**

**Laboratory Reports and Chain-of-Custody Record**

# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

FLUOR DANIEL GTI  
757 ARNOLD DRIVE, STE. D  
MARTINEZ, CA 94553

REPORT DATE: 12/17/97

DATE(S) SAMPLED: 11/28/97

DATE RECEIVED: 12/01/97

ATTN: EILEEN BRENNAN  
CLIENT PROJ. ID: 020200281  
CLIENT PROJ. NAME: SEARS #1058 *Oakland*

AEN WORK ORDER: 9712017


### PROJECT SUMMARY:

On December 1, 1997, this laboratory received 8 water sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

  
Larry Klein  
Laboratory Director

## FLUOR DANIEL GTI

SAMPLE ID: MW-1  
 AEN LAB NO: 9712017-01  
 AEN WORK ORDER: 9712017  
 CLIENT PROJ. ID: 020200281

DATE SAMPLED: 11/28/97  
 DATE RECEIVED: 12/01/97  
 REPORT DATE: 12/17/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5 ug/L		12/07/97
Toluene	108-88-3	ND	0.5 ug/L		12/07/97
Ethylbenzene	100-41-4	ND	0.5 ug/L		12/07/97
Xylenes, Total	1330-20-7	3 *	2 ug/L		12/07/97
Purgeable HCs as Gasoline	5030/GCFID	0.34 *	0.05 mg/L		12/07/97
Methyl t-Butyl Ether	1634-04-4	6 *	5 ug/L		12/07/97
#Extraction for TPH	EPA 3510	-		Extrn Date	12/07/97
TPH as Oil	GC-FID	ND	0.2 mg/L		12/09/97

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

## FLUOR DANIEL GTI

SAMPLE ID: MW-9  
 AEN LAB NO: 9712017-02  
 AEN WORK ORDER: 9712017  
 CLIENT PROJ. ID: 020200281

DATE SAMPLED: 11/28/97  
 DATE RECEIVED: 12/01/97  
 REPORT DATE: 12/17/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	12/07/97
Toluene	108-88-3	0.5 *	0.5	ug/L	12/07/97
Ethylbenzene	100-41-4	0.9 *	0.5	ug/L	12/07/97
Xylenes, Total	1330-20-7	ND	2	ug/L	12/07/97
Purgeable HCs as Gasoline	5030/GCFID	0.15 *	0.05	mg/L	12/07/97
Methyl t-Butyl Ether	1634-04-4	ND	5	ug/L	12/07/97
#Extraction for TPH	EPA 3510	-		Extrn Date	12/07/97
TPH as Oil	GC-FID	ND	0.2	mg/L	12/09/97

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

## FLUOR DANIEL GTI

SAMPLE ID: MW-8  
 AEN LAB NO: 9712017-03  
 AEN WORK ORDER: 9712017  
 CLIENT PROJ. ID: 020200281

DATE SAMPLED: 11/28/97  
 DATE RECEIVED: 12/01/97  
 REPORT DATE: 12/17/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	12/07/97
Toluene	108-88-3	ND	0.5	ug/L	12/07/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	12/07/97
Xylenes, Total	1330-20-7	ND	2	ug/L	12/07/97
Purgeable HCs as Gasoline	5030/GCFID	0.11 *	0.05	mg/L	12/07/97
Methyl t-Butyl Ether	1634-04-4	ND	5	ug/L	12/07/97
#Extraction for TPH	EPA 3510	-		Extrn Date	12/07/97
TPH as Oil	GC-FID	ND	0.2	mg/L	12/09/97

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

## FLUOR DANIEL GTI

SAMPLE ID: MW-2  
 AEN LAB NO: 9712017-04  
 AEN WORK ORDER: 9712017  
 CLIENT PROJ. ID: 020200281

DATE SAMPLED: 11/28/97  
 DATE RECEIVED: 12/01/97  
 REPORT DATE: 12/17/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	0.6 *	0.5	ug/L	12/07/97
Toluene	108-88-3	ND	0.5	ug/L	12/07/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	12/07/97
Xylenes, Total	1330-20-7	ND	2	ug/L	12/07/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	12/07/97
Methyl t-Butyl Ether	1634-04-4	ND	5	ug/L	12/07/97
#Extraction for TPH	EPA 3510	-		Extrn Date	12/07/97
TPH as Oil	GC-FID	1.9 *	0.2	mg/L	12/10/97

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit



## FLUOR DANTEL GTT

SAMPLE ID: MW-4  
 AEN LAB NO: 9712017-05  
 AEN WORK ORDER: 9712017  
 CLIENT PROJ. ID: 020200281

DATE SAMPLED: 11/28/97  
 DATE RECEIVED: 12/01/97  
 REPORT DATE: 12/17/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	3.6 *	0.5	ug/L	12/07/97
Toluene	108-88-3	3.9 *	0.5	ug/L	12/07/97
Ethylbenzene	100-41-4	3.7 *	0.5	ug/L	12/07/97
Xylenes, Total	1330-20-7	12 *	2	ug/L	12/07/97
Purgeable HCs as Gasoline	5030/GCFID	0.12 *	0.05	mg/L	12/07/97
Methyl t-Butyl Ether	1634-04-4	ND	5	ug/L	12/07/97
#Extraction for TPH	EPA 3510	-		Extrn Date	12/07/97
TPH as Oil	GC-FID	ND	0.2	mg/L	12/10/97

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## FLUOR DANIEL GTI

SAMPLE ID: EW-1  
 AEN LAB NO: 9712017-06  
 AEN WORK ORDER: 9712017  
 CLIENT PROJ. ID: 020200281

DATE SAMPLED: 11/28/97  
 DATE RECEIVED: 12/01/97  
 REPORT DATE: 12/17/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	4.5 *	0.5 ug/L		12/07/97
Toluene	108-88-3	1.1 *	0.5 ug/L		12/07/97
Ethylbenzene	100-41-4	1.1 *	0.5 ug/L		12/07/97
Xylenes, Total	1330-20-7	4 *	2 ug/L		12/07/97
Purgeable HCs as Gasoline	5030/GCFID	0.56 *	0.05 mg/L		12/07/97
Methyl t-Butyl Ether	1634-04-4	5 *	5 ug/L		12/07/97
#Extraction for TPH	EPA 3510	-	Extrn Date		12/07/97
TPH as Oil	GC-FID	5.7 *	0.2 mg/L		12/10/97

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

FLUOR DANTEL GTI

SAMPLE ID: DUP MW4  
 AEN LAB NO: 9712017-07  
 AEN WORK ORDER: 9712017  
 CLIENT PROJ. ID: 020200281

DATE SAMPLED: 11/28/97  
 DATE RECEIVED: 12/01/97  
 REPORT DATE: 12/17/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	12/07/97
Toluene	108-88-3	0.6 *	0.5	ug/L	12/07/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	12/07/97
Xylenes, Total	1330-20-7	ND	2	ug/L	12/07/97

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

## FLUOR DANIEL GTI

SAMPLE ID: TBLB  
AEN LAB NO: 9712017-08  
AEN WORK ORDER: 9712017  
CLIENT PROJ. ID: 020200281

DATE SAMPLED: 11/28/97  
DATE RECEIVED: 12/01/97  
REPORT DATE: 12/17/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	0.5 ug/L		12/12/97
Toluene	108-88-3	ND	0.5 ug/L		12/12/97
Ethylbenzene	100-41-4	ND	0.5 ug/L		12/12/97
Xylenes, Total	1330-20-7	ND	2 ug/L		12/12/97

ND = Not detected at or above the reporting limit  
\* = Value at or above reporting limit

AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9712017  
CLIENT PROJECT ID: 020200281

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spikes(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analyses.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behaviour, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrument performance.

D: Surrogates diluted out.

I: Interference.

!: Indicates result outside of established laboratory QC limits.

ANALYSIS: TPH as Diesel

MATRIX: Water

METHOD BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank		LAB ID: BLNK-1207-1		INSTR RUN: GC C\971207000000/1/				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSCW120797-1				
UNITS: mg/L		ANALYZED: 12/07/97		DILUTION: 1.000000				
METHOD:								
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)	RPD (%)	RPD LIMIT (%)
Diesel	ND		0.05			LOW HIGH		
Motor Oil	ND		0.2					
n-Pentacosane (surr)	102			100		65 125		

LABORATORY CONTROL SAMPLES

SAMPLE TYPE: Laboratory Control Spike		LAB ID: LCDW-1207-1		INSTR RUN: GC C\971207000000/3/1				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSCW120797-1				
UNITS: mg/L		ANALYZED: 12/07/97		DILUTION: 1.000000				
METHOD:								
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)	RPD (%)	RPD LIMIT (%)
Diesel	2.12	ND	0.05	2.00	106	LOW HIGH		
n-Pentacosane (surr)	100	102		100	100	65 125		

SAMPLE TYPE: Laboratory Control Spike		LAB ID: LCSW-1207-1		INSTR RUN: GC C\971207000000/2/1				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSCW120797-1				
UNITS: mg/L		ANALYZED: 12/07/97		DILUTION: 1.000000				
METHOD:								
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)	RPD (%)	RPD LIMIT (%)
Diesel	2.12	ND	0.05	2.00	106	LOW HIGH		
n-Pentacosane (surr)	95.9	102		100	95.9	65 125		

LABORATORY CONTROL DUPLICATES

SAMPLE TYPE: Laboratory Control Sample Duplicate		LAB ID: LCRW-1207-1		INSTR RUN: GC C\971207000000/4/2				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSCW120797-1				
UNITS: mg/L		ANALYZED: 12/07/97		DILUTION: 1.000000				
METHOD:								
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)	RPD (%)	RPD LIMIT (%)
Diesel	2.12	2.12	0.05	2030		LOW HIGH	0	15
Motor Oil	ND	ND	0.2	200			0	
n-Pentacosane (surr)	100	95.9			4.19	65 125		

SAMPLE SURROGATES

SAMPLE TYPE: Sample-Client		LAB ID: 9712017-01E		INSTR RUN: GC C\971207000000/11/				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSCW120797-1				
UNITS: mg/L		ANALYZED: 12/09/97		DILUTION: 1.000000				
METHOD:								
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)	RPD (%)	RPD LIMIT (%)
n-Pentacosane (surr)	102			100	102	65 125		

SAMPLE TYPE: Sample-Client		LAB ID: 9712017-02E		INSTR RUN: GC C\971207000000/12/				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSCW120797-1				
UNITS: mg/L		ANALYZED: 12/09/97		DILUTION: 1.000000				
METHOD:								
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)	RPD (%)	RPD LIMIT (%)
n-Pentacosane (surr)	105			100	105	65 125		

WORK ORDER: 9712017

QUALITY CONTROL REPORT

PAGE QR-3

ANALYSIS: TPH as Diesel

MATRIX: Water

SAMPLE SURROGATES

SAMPLE TYPE: Sample-Client		LAB ID: 9712017-02E		INSTR RUN: GC C\971207000000/12/				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSEW120797-1				
UNITS: mg/L		ANALYZED: 12/09/97		DILUTION: 1.000000				
METHOD:								
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)	RPD (%)	RPD LIMIT (%)
						LOW HIGH		
SAMPLE TYPE: Sample-Client		LAB ID: 9712017-03E		INSTR RUN: GC C\971207000000/13/				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSEW120797-1				
UNITS: mg/L		ANALYZED: 12/09/97		DILUTION: 1.000000				
METHOD:								
n-Pentacosane (surr)	106			100	106	65 125		
SAMPLE TYPE: Sample-Client		LAB ID: 9712017-04E		INSTR RUN: GC C\971207000000/14/				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSEW120797-1				
UNITS: mg/L		ANALYZED: 12/09/97		DILUTION: 1.000000				
METHOD:								
n-Pentacosane (surr)	100			100	100	65 125		
SAMPLE TYPE: Sample-Client		LAB ID: 9712017-05E		INSTR RUN: GC C\971207000000/15/				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSEW120797-1				
UNITS: mg/L		ANALYZED: 12/09/97		DILUTION: 1.000000				
METHOD:								
n-Pentacosane (surr)	103			100	103	65 125		
SAMPLE TYPE: Sample-Client		LAB ID: 9712017-06E		INSTR RUN: GC C\971207000000/16/				
INSTRUMENT: HP 5890		PREPARED: 12/07/97		BATCH ID: DSEW120797-1				
UNITS: mg/L		ANALYZED: 12/09/97		DILUTION: 1.000000				
METHOD:								
n-Pentacosane (surr)	96.5			100	96.5	65 125		

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9712017  
 INSTRUMENT: F  
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			Fluorobenzene
12/07/97	MW-1	01	99
12/07/97	MW-9	02	97
12/07/97	MW-8	03	98
12/07/97	MW-2	04	100
12/07/97	MW-4	05	99
12/07/97	EW-1	06	103
12/07/97	DUPMW4	07	98
12/12/97	TBLB	08	100

QC Limits: 70-130

DATE ANALYZED: 12/07/97  
 SAMPLE SPIKED: LCS  
 INSTRUMENT: F

Laboratory Control Sample Recovery

Analyte	Spike Added (ug/L)	Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Benzene	100	107	11	70-130	20
Toluene	100	113	8	70-130	20
Ethylbenzene	100	115	6	70-130	20
Total Xylenes	300	118	7	70-130	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

\*\*\* END OF REPORT \*\*\*



Reporting Information:

1. Client: FLUOR DANIEL GTI  
 Address: 257 Arnold Dr.  
SUITE D MARTINEZ  
 Contact: FILIPEN BRENNER  
 Alt. Contact: \_\_\_\_\_

American Environmental Network

3440 Vincent Road, Pleasant Hill, CA 94523  
 Phone (510) 930-9090  
 FAX (510) 930-0256



REQUEST FOR ANALYSIS / CHAIN OF CUSTODY

9712017

Lab Job Number: \_\_\_\_\_  
 Lab Destination: \_\_\_\_\_  
 Date Samples Shipped: \_\_\_\_\_  
 Lab Contact: \_\_\_\_\_  
 Date Results Required: \_\_\_\_\_  
 Date Report Required: \_\_\_\_\_  
 Client Phone No.: (510) 370-3990  
 Client FAX No.: (510) 370-3991

Address Report To:  
 2. SAME @ #1

Send Invoice To:  
 3. SAME @ #1 + 2

R-3, S-2  
R-5, S-M

Send Report To: 1 or 2 (Circle one)

Client P.O. No.: \_\_\_\_\_ Client Project I.D. No.: 020200281-03054

Sample Team Member (s) A. New

Lab Number	Client Sample Identification	Air Volume	Date/Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.	ANALYSIS				Comments / Hazards		
1ABCDEF	MW-1		11/12/97 12:40	SW	HLL	6	Cont. 1	PHENOL	APED					
2A-F	MW9		12:50			6		BENZENE						
3A-F	MW8		13:00			6		SO2						
4A-F	MW3		13:10			6								
5A-F	MW4		13:20			6								
6A-F	EW-1		13:30	↓	↓	6	↓							
7A-F	DUP MW4		13:35	↓	↓	1	↓							
8A-F	TBLB		↓	↓	↓	1	↓							

Relinquished by: (Signature) <u>[Signature]</u>	DATE <u>12-1-97</u>	TIME <u>15:25</u>	Received by: (Signature) <u>Rich Gilmore</u>	DATE <u>12-1-97</u>	TIME <u>15:25</u>
Relinquished by: (Signature) <u>Rich Gilmore</u>	DATE <u>12-1-97</u>	TIME <u>18:00</u>	Received by: (Signature) <u>Fred C. [Signature]</u>	DATE <u>12/1/97</u>	TIME <u>1800</u>
Relinquished by: (Signature) _____	DATE _____	TIME _____	Received by: (Signature) _____	DATE _____	TIME _____
Method of Shipmen: _____			Lab Comments: _____		

\*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb. filter  
 4) PVC filter, diam. \_\_\_\_\_ pore size \_\_\_\_\_ 5) Charcoal tube 6) Silica gel tube 7) Water 8) Soil 9) Bulk Sample  
 10) Other \_\_\_\_\_ 11) Other \_\_\_\_\_