R0480

GROUNDWATER TECHNOLOGY ®

Groundwater Technology, Inc.
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Tel: (510) 370-3990 Fax: (510) 370-3991

April 24, 1996

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

ENVIRONMENTAL PROTECTION
96 APR 25 AM 8:35

SUBJECT: Quarterly Groundwater Monitoring and Sampling Report
Former Sears Store 1058
2633 Telegraph Avenue, Oakland, California
GTI Project 020200136

Dear Mr. Klettke:

On behalf of Sears, Roebuck and Co., Groundwater Technology, Inc. presents the monthly groundwater monitoring data collected on January 15, 1996, and the quarterly monitoring and sampling data collected on March 5, 1996, from the site referenced above. February monitoring was not conducted due to a scheduling error. The eight 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 detected in monitoring well MW-3 which is consistent with past measurements. A potentiometric surface map is presented in attachment 1, figure 1. A summary of groundwater monitoring data is presented in attachment 2, table 1.

After measuring depth to water, the monitoring wells, except MW-3, were purged and sampled. Groundwater monitoring and sample collection protocol, and field data sheets are presented in attachment 3. The groundwater samples were analyzed for total petroleum hydrocarbons (TPH)-as-motor oil by modified EPA methods 3510/8015. Additionally, groundwater samples from monitoring well MW-1 were analyzed for dissolved benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA method 8020. Groundwater samples from monitoring wells MW-2, MW-4, MW-5, MW-6, MW-7 and MW-8 were analyzed for BTEX and for TPH-as-gasoline by EPA methods 8020/modified 8015. Groundwater samples from monitoring wells MW-2, MW-5, MW-6, MW-7 and MW-8 were analyzed for dissolved cadmium, chromium, lead, nickel and zinc by EPA methods 6010 and 7421. The groundwater sample from monitoring well MW-4 was analyzed for lead by EPA method 7421. A summary of the groundwater analytical results is presented in table 2. A distribution map of dissolved benzene, TPH-as-gasoline and TPH-as-motor-oil concentrations is presented in 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,
Groundwater Technology, Inc.

Mike Wray

Michael J. Wray
Project Manager

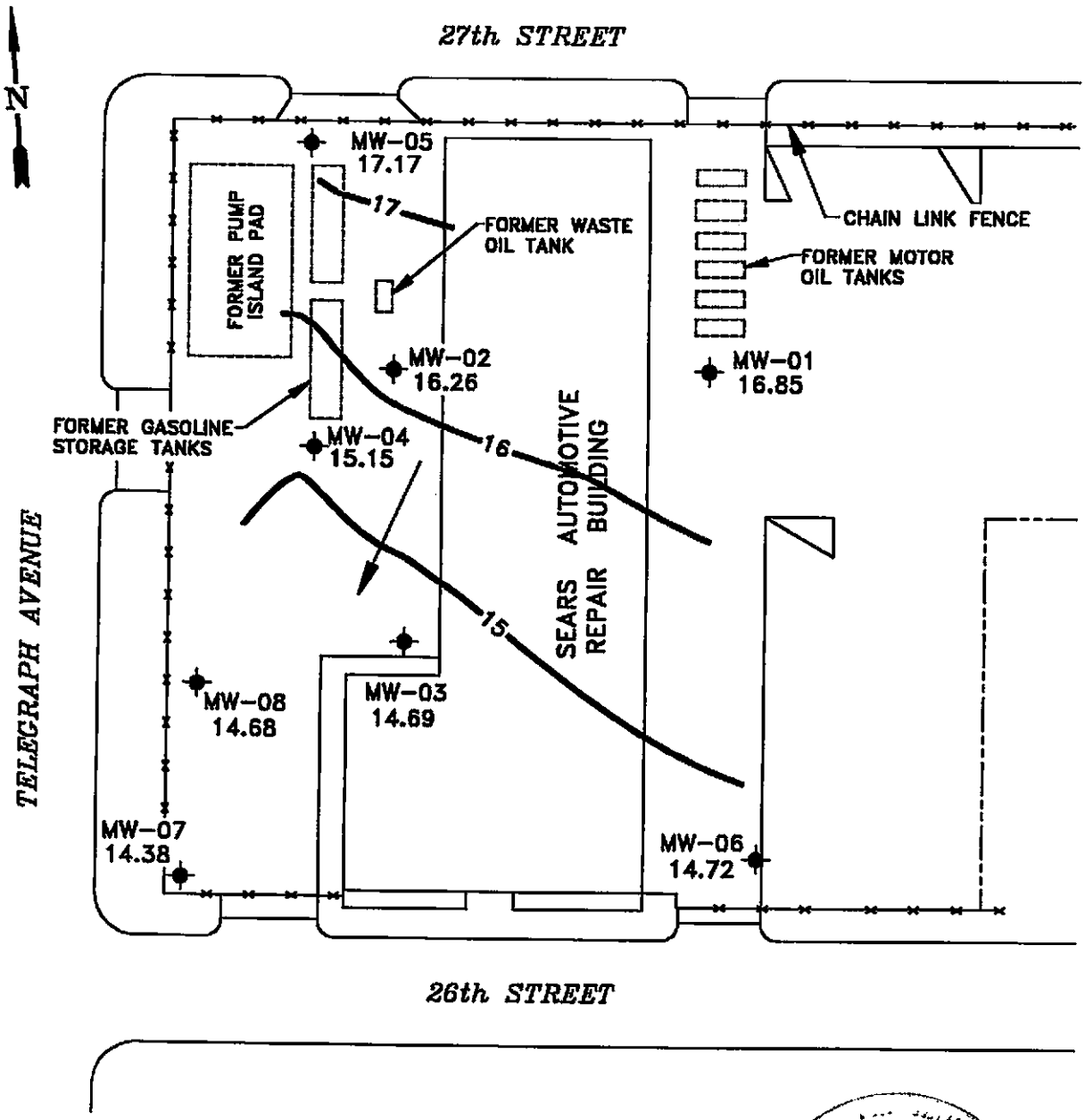
Attachments

Scott M. DeMuth - Sears, Roebuck and Co.

ATTACHMENT 1

Figures

1. Potentiometric Surface Map (03/05/96)
2. Concentrations of Benzene, TPH-as-Gasoline and TPH-as-Motor Oil in Groundwater (03/05/96)



LEGEND

✦	MONITORING WELL
X.XX	POTENTIOMETRIC SURFACE ELEVATION (FT)
SPH	SEPARATE-PHASE HYDROCARBONS
⌒	POTENTIOMETRIC SURFACE CONTOUR
←	GROUNDWATER FLOW DIRECTION

EDWARD S. (ED) K. SIMONS
No. 4422
STATE OF CALIFORNIA

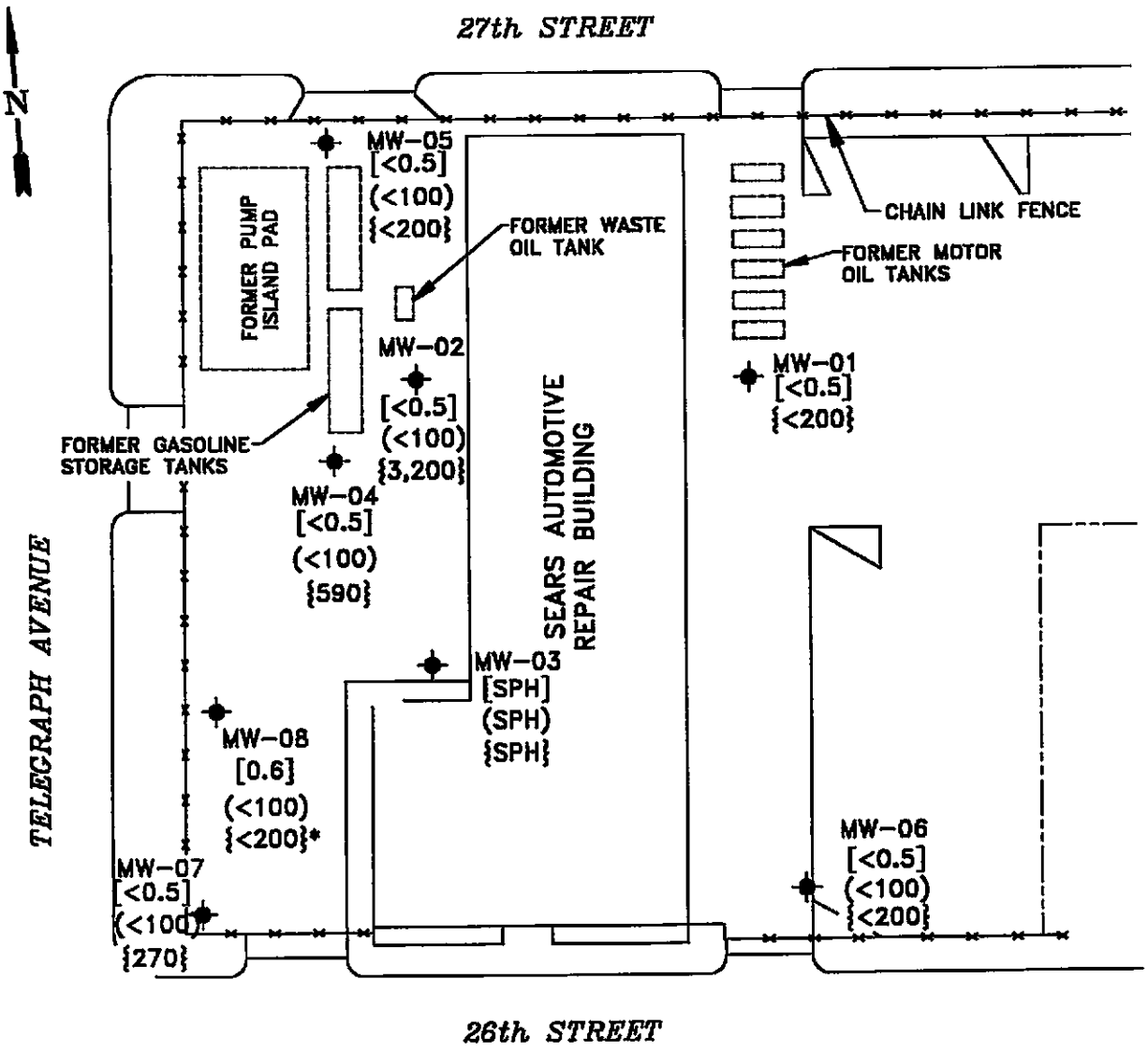
NOTE:
1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.

GROUNDWATER TECHNOLOGY

0 FEET 40
SCALE

POTENTIOMETRIC SURFACE MAP (3/5/96)

CLIENT: SEARS, ROEBUCK AND CO. SITE NO. 1058	FILE: S0094PSM, (1:40)	PROJECT NO.: 020200094		PM	PE/RG
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	REV.			FIGURE: 1	
	DES. SS	DET. SS	DATE: 4/11/96		



LEGEND

✦	MONITORING WELL
SPH	SEPARATE-PHASE HYDROCARBONS
X.XX	POTENTIOMETRIC SURFACE ELEVATION (FT)
[ ]	BENZENE CONCENTRATIONS [ug/l]
( )	TPH-AS-GASOLINE (ug/l)
{ }	TPH-AS-MOTOR OIL {ug/l}
*	GROUNDWATER SAMPLE COLLECTED ON 12/11/95

EDWARD S. (ED) K. SIMONS No. 4422 STATE OF CALIFORNIA

GROUNDWATER TECHNOLOGY

0 FEET 40 SCALE

CONCENTRATIONS OF BENZENE, TPH-AS GASOLINE & TPH-AS-MOTOR OIL IN GROUNDWATER (3/5/96)

CLIENT: SEARS, ROEBUCK AND CO. SITE NO. 1058	FILE: S0094BT		PROJECT NO.: 02020094		PM	PE/RG
	REV.					FIGURE: 2
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	DES. KM	DET. KM	DATE: 4/9/96			

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

GROUNDWATER TECHNOLOGY ®

(Table 1 continues)

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

(Table 1 continues)

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

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

GROUNDWATER TECHNOLOGY ®

(Table 1 continues)

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

GROUNDWATER TECHNOLOGY ®

(Table 1 continues)

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

(Table 1 continues)

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

GROUNDWATER TECHNOLOGY

(Table 1 continues)

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	--	--	26.79
		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

(Table 1 continues)

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

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

GROUNDWATER TECHNOLOGY

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
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	--	[c]<250	--	--
	12/01/94	0.4	0.4	<0.3	6.6	--	[c]<250	--	--
	03/08/95	<0.3	0.6	<0.3	2.7	--	[c]<250	--	--
	06/09/95	<0.3	1.4	4.7	5.6	--	[c]<250	--	--
	08/29/95	0.3	0.9	3.9	2.8	--	[c]<250	--	--
	11/15/95	<0.5	<0.5	<0.5	27	--	[c]<200	--	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	--	[c]<200	--	--
MW-2	12/30/92	0.7	<0.3	<0.3	3	190	--	1	[a]ND
	03/24/93	0.6	<0.3	<0.3	2	120	--	<1	[a]ND
	06/21/93	0.3	<0.3	<0.3	0.7	82	**<100	--	[c]ND
	09/16/93	<0.3	<0.3	<0.3	<0.5	28	**<100	--	[c]ND
	12/01/93	<0.3	<0.3	<0.3	1	68	--	--	[c]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	[c]<250	--	[d]15
	12/01/94	<0.3	<0.3	<0.3	<0.5	54	[f]1,300	--	[d]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	--	[b]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
MW-3	12/30/92	11	0.9	<0.3	2	910	--	20	[a]ND
	03/24/93	28	0.7	1	8	3,300	--	28	**[a]15
	06/21/93	21	5	2	19	**2,600	32,000	26	[cd]5
	09/16/93	--	--	--	--	--	--	--	--
	12/01/93	--	--	--	--	--	--	--	--
	03/09/94	2	1.4	4.5	13	2,000	**5,700	**63	[a]ND
	06/30/94	--	--	--	--	--	--	--	--
	09/27/94	--	--	--	--	--	--	--	--
	12/01/94	--	--	--	--	--	--	--	--
	03/08/95	--	--	--	--	--	--	--	--
	06/09/95	--	--	--	--	--	--	--	--
	08/29/95	--	--	--	--	--	--	--	--
	11/15/95	--	--	--	--	--	--	--	--
	03/05/96	--	--	--	--	--	--	--	--

GROUNDWATER TECHNOLOGY ®

(Table 2 continues)

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
MW-4	12/30/92	2	<0.3	1	<0.5	1,200	--	<1	[a]ND
	03/24/93	<0.3	<0.3	<0.3	<0.5	750	--	2	[a,e]7
	06/21/93	<0.3	2	<0.3	0.5	660	19,000	--	[a]ND
	09/16/93	0.3	<0.3	2	3	410	2,500	--	[a]ND
	12/01/93	<0.3	<0.3	<0.3	<0.5	150	390	--	[a]ND
	03/09/94	0.7	0.8	2	3.6	1,500	780	--	[a]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	--	[a]<5
	03/08/95	<0.3	<0.3	<0.3	<0.5	360	1,000	--	[a]<5
	06/09/95	<0.3	0.4	<0.3	<0.5	64	1,100	--	[a]<5
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	1,200	--	[a]<5
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	2,100	--	[a]ND
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	590	--	[a]ND
MW-5	12/30/92	<0.3	<0.3	<0.3	<0.5	37	--	<1	[b,c]5
	03/24/93	<0.3	<0.3	<0.3	0.5	19	--	2	[a,c]341
	06/21/93	<0.3	<0.3	<0.3	<0.5	<10	<100	--	[c]ND
	09/16/93	0.3	<0.3	<0.3	1	<10	<100	--	[c]ND
	12/01/93	<0.3	<0.3	<0.3	1	17	--	--	[c]ND
	12/30/93	--	--	--	--	--	<100	--	--
	03/09/94	<0.3	<0.3	<0.3	<0.5	22	<100	--	[c]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	--	[d]7
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	[h]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
MW-6	12/27/93	<0.3	<0.3	<0.3	<0.5	<10	<100	<1	[a]70
	03/09/94	<0.3	<0.3	<0.3	<0.5	15	<100	--	[c]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	--	[d]8
	12/01/94	<0.3	<0.3	<0.3	<0.5	<10	<250	--	[g]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	--	[h]24
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	<200	--	[g]31
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	<200	--	ND
MW-7	12/27/93	<0.3	<0.3	1	2	140	<100	<1	[a]40
	03/09/94	<0.3	<1.0	1.5	4.1<	620	<100	--	[c]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	[e]<250	--	ND
	12/01/94	<0.3	<0.3	<0.3	1.1	<10	[e]<250	--	[g]28
	03/08/95	<0.3	<0.3	<0.3	<0.5	<10	[e]<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	--	[h]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

GROUNDWATER TECHNOLOGY

(Table 2 continues)

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
MW-8	12/27/93	0.4	4	0.4	1	390	<100	<1	[a]18
	03/09/94	0.6	0.8	0.5	1.5	420	<100	--	[a]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	[e]<250	--	[d]9
	12/01/94	5.4	<0.3	0.7	1.3	230	[e]<250	--	[c]ND
	03/08/95	<0.3	<0.3	<0.3	<0.5	230	[e]<250	--	ND
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	[e]<250	--	ND
	08/29/95	0.9	0.4	<0.3	0.8	200	[e]<250	--	[h]15
	11/15/95	0.58	<0.5	<0.5	0.54	120	--	--	[g]21
	12/11/95	--	--	--	--	--	[e]<200	--	--
	03/05/96	0.6	<1.0	<1.0	<2.0	<100	[e]<200	--	ND

Source: GTEL Environmental Laboratories

Notes: "--" indicates no datum for the cell, including "not analyzed for this constituent". Values beginning with "<" indicate the 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)
* = 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

GROUNDWATER TECHNOLOGY

(Table 2 continues)

ATTACHMENT 3

Groundwater Monitoring and Sample Collection Protocol
and
Field Data Sheets

GROUNDWATER TECHNOLOGY ®

GROUNDWATER TECHNOLOGY 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 utilizes 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:

(Product thickness) x (0.8) + (Water elevation) = 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, ethylbenzene, xylene, and total petroleum hydrocarbons (TPH)-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.

SITE VISIT FORM
GROUNDWATER TECHNOLOGY, INC.

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

Technician: HECTOR MERINO
Schedule: 1/15/96
Job No. 020200094.030542

PREPATORY COMMENTS

Visit Date: 1/15/96 Arrival Time: 11:00AM Departure Time: _____

Called Project Manager? YES (NO) Time: _____ Who: _____

If you did not call, why not? NO REASON, ALL WENT WELL

Weather: (Rain) Snow Sunny (Cloudy) Temperature: _____

WELL GAUGING - TASK Nr: 030542 [MONTHLY]
Decon IP between each well. IP #: _____

MW-1:	DTB_21.72	DTW	11.21	DTP	_____	PT _____
MW-2:	DTB_21.79	DTW	11.10	DTP	_____	PT _____
MW-3:	DTB_24.67	DTW	12.60	DTP	12.47	PT 0.13
MW-4:	DTB_22.97	DTW	11.71	DTP	_____	PT _____
MW-5:	DTB_25.27	DTW	10.57	DTP	_____	PT _____
MW-6:	DTB_22.05	DTW	10.83	DTP	_____	PT _____
MW-7:	DTB_21.70	DTW	11.07	DTP	_____	PT _____
MW-8:	DTB_22.14	DTW	12.38	DTP	_____	PT _____

NOTES:
OPENED ALL WELLS, GAUGED WELLS, DECONING BETEEN WELLS.
BAILED SURFACE WATER FROM MW-1-6-7-8-5.3
1 EMPTY DRUM, 1 FULL DRUM ON SITE.
WELLS NEED 9/16 BOLTS.

HOURS ESTIMATED: HOURS USED:

NOTE: **Make sure all wells are locked - Replace any locks which are damaged or missing.**

SITE VISIT FORM
GROUNDWATER TECHNOLOGY, INC.

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

Technician: HECTOR MERINO
Schedule:
Job No. 020200136.030542

PREPATORY COMMENTS

Visit Date: 3/5/96 Arrival Time: 10:00 Departure Time: 13:30

Called Project Manager? (YES) NO Time: 13:00 Who: BRIGET BAXTER

If you did not call, why not? _____

Weather: Rain Snow Sunny (Cloudy) Temperature: 50°

WELL GAUGING - TASK Nr: 030542 [MONTHLY]

Decon IP between each well. IP #: _____

MW-1:	DTB_21.72	DTW	9.35	DTP	_____	PT _____
MW-2:	DTB_21.79	DTW	10.24	DTP	_____	PT _____
MW-3:	DTB_24.67	DTW	11.68	DTP	11.64	PT .04
MW-4:	DTB_22.97	DTW	11.02	DTP	_____	PT _____
MW-5:	DTB_25.27	DTW	9.81	DTP	_____	PT _____
MW-6:	DTB_22.05	DTW	9.60	DTP	_____	PT _____
MW-7:	DTB_21.70	DTW	10.50	DTP	_____	PT _____
MW-8:	DTB_22.14	DTW	11.44	DTP	_____	PT _____

NOTES:
MONITORED AND SAMPLED ALL WELLS, EXCEPT MW3
MW3 HAS PRODUCT .04

HOURS ESTIMATED: HOURS USED:

* NOTE: **Make sure all wells are locked - Replace any locks which are damaged or missing.**

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200136.030543

Date: 9/5/96

Page 1 of 8

Project Manager: Mike Wray

Well ID: MW-5

Well Diameter: 2

DTW Measurements:
Initial: 9.81
Recharge:
DTB: 25.27

Calc Well Volume: 2.5 gal
Well Volume: 7.3 8 gal

Purge Method
Peristaltic
Gear Drive
Submersible X

Pump Depth ft.
Hand Bailed
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:

Other:

Time	Temp X C F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
10:45	13.6	1.02	7.03	2	cloudy	
10:47	13.6	0.49	7.03	4		
10:49	13.8	0.47	7.04	6		
10:51	13.9	051	7.02	8		
10:53	14.0	0.57	7.04	10	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200136.030543

Date: 9/5/96

Page 2 of 8

Project Manager: Mike Wray

Well ID: MW-1

Well Diameter: 2

DTW Measurements:
Initial: 9.35
Recharge:
DTB: 21.72

Calc Well Volume: 2.0 gal
Well Volume: X3 6 gal

Purge Method
Peristaltic
Gear Drive
Submersible X

Pump Depth ft.
Hand Bailed
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:

Other:

Time	Temp X C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
10:15	12.6	0.86	7.18	1	cloudy	
10:16	12.6	1.15	7.12	2		
10:17	12.6	1.15	7.11	3		
10:18	12.6	1.16	7.10	4		
10:19	12.7	1.16	7.10	5		
10:20	12.6	1.17	7.09	6	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200136.030543

Date: 9/5/96

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Project Manager: Mike Wray

Well ID: MW-6

Well Diameter: 2

DTW Measurements:
Initial: 9.60
Recharge:
DTB 22.05

Calc Well Volume: 2.0 gal
Well Volume: X3 6 gal

Purge Method
Peristaltic
Gear Drive
Submersible X

Pump Depth ft.
Hand Bailed
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:

Other:

Time	Temp X C F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
10:30	12.6	1.16	7.08	1	CLOUDY	
10:31	12.6	1.15	7.06	2		
10:32	12.8	0.53	7.07	3		
10:33	12.7	0.51	7.06	4		
10:34	13.2	0.49	7.06	5		
10:35	13.3	0.49	7.05	6		

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200136.030543

Date: 9/5/96

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Project Manager: Mike Wray

Well ID: MW-7

Well Diameter: 2

DTW Measurements:
Initial: 10.50
Recharge:
DTB 21.70

Calc Well Volume: 1.8 gal
Well Volume: X3 5 gal

Purge Method
Peristaltic
Gear Drive
Submersible X

Pump Depth ft.
Hand Bailed
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:

Other:

Time	Temp X C F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
10:00	15.2	0.94	7.02	1	Cloudy	
11:01	15.3	0.92	7.01	2	↓	
11:02	15.5	0.91	7.04	3		
11:03	15.6	0.88	7.01	4		
11:04	16.0	0.86	7.00	5	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200136.030543

Date: 3/5/96

Page 5 of 8

Project Manager: Mike Wray

Well ID: MW-8

Well Diameter: 2

DTW Measurements:
Initial: 11.44
Recharge: _____
DTB 22.14

Calc Well Volume: 1.7 gal
Well Volume: X3 5 gal

Purge Method
Peristaltic _____
Gear Drive _____
Submersible X

Pump Depth _____ ft.
Hand Bailed _____
Air Lift _____
Other _____

Instruments Used
YSI: X
Hydac: _____
Omega: _____

Other: _____

Time	Temp X C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
11:10	16.3	0.54	6.89	1	cloudy	
11:11	16.6	0.65	6.88	2	↓	
11:12	16.7	0.66	6.88	3		
11:13	16.8	0.66	6.88	4		
11:14	16.8	0.67	6.89	5	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200136.030543

Date: 3/5/96

Page 6 of 8

Project Manager: Mike Wray

Well ID: MW-2

Well Diameter: 2

DTW Measurements:
Initial: 10.24
Recharge: _____
DTB 21.79

Calc Well Volume: 1.8 gal
Well Volume X 3 6 gal

Purge Method
Peristaltic _____
Gear Drive _____
Submersible X

Pump Depth _____ ft.
Hand Bailed _____
Air Lift _____
Other _____

Instruments Used
YSI: X
Hydac: _____
Omega: _____

Other: _____

Time	Temp X C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
11:24	17.3	0.78	6.87	1	Cloudy	
11:25	17.3	0.77	6.87	2		
11:26	17.3	0.78	6.86	3		
11:27	17.4	0.77	6.87	4		
11:28	17.2	0.68	6.87	5		
11:29	17.1	0.67	6.86	6	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200136.030543

Date: 3/5/96

Page 7 of 8

Project Manager: Mike Wray

Well ID: MW-4

Well Diameter: 2

DTW Measurements:
Initial: 11.02
Recharge:
DTB 22.97

Calc Well Volume: 1.9 gal
Well Volume: X3 6 gal

Purge Method
Peristaltic
Gear Drive
Submersible X

Pump Depth ft.
Hand Bailed
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:

Other:

Time	Temp X C F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
11:41	17.3	0.80	6.77	1	cloudy	
11:42	17.4	0.64	6.76	2		
11:43	17.6	0.63	6.75	3		
11:44	17.9	0.77	6.74	4		
11:45	18.0	0.76	6.75	5		
11:46	18.1	0.77	6.73	6		

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200136,030543

Date: 3/5/96

Page 8 of 8

Project Manager: Mike Wray

Well ID: MW-3

Well Diameter: 2

DTW Measurements:
Initial: 11.68
Recharge:
DTB: 24.67

Calc Well Volume: gal
Well Volume: X3 gal

Purge Method
Peristaltic
Gear Drive
Submersible

Pump Depth ft.
Hand Bailed
Air Lift
Other

Instruments Used
YSI:
Hydac:
Omega:

Other:

Time	Temp C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
						DTW: 11.68 DTP: 11.64 PT: .04
						NO SAMPLE TAKEN

ATTACHMENT 4

Laboratory Reports
and Chain-of-Custody Record

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

March 15, 1996

Bridget Baxter
Groundwater Technology, Inc.
4057 Port Chicago Highway
Martinez, CA 94555

RE: GTEL Client ID: 020200136
Login Number: W6030086
Project ID (number): 020200136
Project ID (name): SEARS/1058/OAKLAND/CA

Dear Bridget Baxter:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 03/06/96 under Chain-of-Custody Number(s) 36643.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

GTEL is certified by the Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Terry R. Loucks
Laboratory Director

Project Number: 020200136
030542
Project Name: Sears #1058
2633 Telegraph Ave
Work Order Number: W6-03-0086
Date Reported: 03-14-96

ANALYTICAL RESULTS

Total Petroleum Hydrocarbons as Motor Oil[b] in Water
GC/FID[a]

Sample Identification		Date Sampled	Date Extracted	Date Analyzed	Concentration, ug/L	Reporting Limit, ug/L
GTEL No.	Client ID					
02	MW-5	03-05-96	03-08-96	03-12-96	<200	200
03[c]	MW-1	03-05-96	03-08-96	03-12-96	<200	200
04	MW-6	03-05-96	03-08-96	03-12-96	<200	200
05	MW-7	03-05-96	03-08-96	03-12-96	**270**	200
06[c]	MW-8	03-05-96	03-08-96	03-12-96	<200	200
07	MW-2	03-05-96	03-08-96	03-12-96	**3200**	200
08	MW-4	03-05-96	03-08-96	03-12-96	**590**	200

a ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods For Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction by EPA Method 3510.

b Motor oil can not be qualitatively identified by type of oil because of chromatographic likeness of different oil types. Due to non-volatility of certain oils, much of the oil present may never be quantified by this gas chromatographic method. Quantitation obtained for motor oil by this method should, therefore, be treated as an estimate. This method quantifies lubricating oil against 10-W-40 standards. For the most accurate analysis of motor oil, an infrared method is recommended.

c Chromatographic data indicates the presence of material lighter than motor oil in this sample. The material is in the C_{10} to C_{22} range.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: 020200136
Login Number: W6030086
Project ID (number): 020200136
Project ID (name): SEARS/1058/OAKLAND/CA

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6030086-02	W6030086-04	W6030086-05	W6030086-06
	Client ID	MW-5	MW-6	MW-7	MW-8
	Date Sampled	03/05/96	03/05/96	03/05/96	03/05/96
EPA 6010A	Date Prepared	03/12/96	03/12/96	03/12/96	03/12/96
EPA 6010A	Date Analyzed	03/12/96	03/12/96	03/12/96	03/12/96
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	03/13/96	03/13/96	03/13/96	03/13/96
EPA 7421	Date Analyzed	03/13/96	03/13/96	03/13/96	03/13/96
EPA 7421	Dilution Factor	1.00	1.00	1.00	1.00

Analyte		Reporting Limit	Units	Concentration:			
Inorganics (MT, WC)							
Cadmium	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Chromium	EPA 6010A	30.	ug/L	< 30.	< 30.	< 30.	< 30.
Lead	EPA 7421	4.0	ug/L	< 4.0	< 4.0	< 4.0	< 4.0
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	< 40.	< 40.
Zinc	EPA 6010A	20.	ug/L	< 20.	< 20.	< 20.	< 20.

Notes:

Dilution Factor:
Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A:
Digestion for Total Metals by EPA Method 3010A.

EPA 7421:
Digestion for Total Metals by EPA Method 3020A.

EPA 6010A, EPA 7421:
"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

W6030086-02:
All samples were filtered as per client request. The results indicate dissolved metals at the time of filtration.

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: 020200136
Login Number: W6030086
Project ID (number): 020200136
Project ID (name): SEARS/1058/OAKLAND/CA

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W6030086-07	W6030086-08	--	--
	Client ID	MW-2	MW-4	--	--
	Date Sampled	03/05/96	03/05/96	--	--
EPA 6010A	Date Prepared	03/12/96	03/13/96	--	--
EPA 6010A	Date Analyzed	03/12/96	03/13/96	--	--
EPA 6010A	Dilution Factor	1.00	1.00	--	--
EPA 7421	Date Prepared	03/13/96	03/13/96	--	--
EPA 7421	Date Analyzed	03/13/96	03/13/96	--	--
EPA 7421	Dilution Factor	1.00	1.00	--	--

Analyte		Reporting Limit	Units	Concentration:			
Cadmium	EPA 6010A	20.	ug/L	< 20.	--	--	--
Chromium	EPA 6010A	30.	ug/L	< 30.	--	--	--
Lead	EPA 7421	4.0	ug/L	< 4.0	< 4.0	--	--
Nickel	EPA 6010A	40.	ug/L	< 40.	--	--	--
Zinc	EPA 6010A	20.	ug/L	< 20.	--	--	--

Notes:

Dilution Factor:
Dilution factor indicates the adjustments made for sample dilution.

EPA 6010A:
Digestion for Total Metals by EPA Method 3010A.

EPA 7421:
Digestion for Total Metals by EPA Method 3020A.

EPA 6010A, EPA 7421:
"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020200136
Login Number: W6030086
Project ID (number): 020200136
Project ID (name): SEARS/1058/OAKLAND/CA

Method: EPA 8020
Matrix: Aqueous

GTEL Sample Number	W6030086-01	W6030086-02	W6030086-03	W6030086-04
Client ID	TRIP BLANK	MW-5	MW-1	MW-6
Date Sampled		03/05/96	03/05/96	03/05/96
Date Analyzed	03/13/96	03/13/96	03/13/96	03/13/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
TPH as Gas	100	ug/L	--	< 100	--	< 100

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020200136
Login Number: W6030086
Project ID (number): 020200136
Project ID (name): SEARS/1058/OAKLAND/CA

Method: EPA 8020
Matrix: Aqueous

GTEL Sample Number	W6030086-05	W6030086-06	W6030086-07	W6030086-08
Client ID	MW-7	MW-8	MW-2	MW-4
Date Sampled	03/05/96	03/05/96	03/05/96	03/05/96
Date Analyzed	03/13/96	03/13/96	03/13/96	03/13/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Benzene	0.5	ug/L	< 0.5	0.6	< 0.5	< 0.5
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
TPH as Gas	100	ug/L	< 100	< 100	< 100	< 100

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020200136
Login Number: W6030086
Project ID (number): 020200136
Project ID (name): SEARS/1058/OAKLAND/CA

Method: EPA 8020
Matrix: Aqueous

GTEL Sample Number	W6030086-09	--	--	--
Client ID	DMW-4	--	--	--
Date Sampled	03/05/96	--	--	--
Date Analyzed	03/13/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
Benzene	0.5	ug/L	< 0.5	--	--	--
Toluene	1.0	ug/L	< 1.0	--	--	--
Ethylbenzene	1.0	ug/L	< 1.0	--	--	--
Xylenes (total)	2.0	ug/L	< 2.0	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

GTEL ENVIRONMENTAL LABORATORIES INC

4080 PIKE LANE, SUITE C
CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

36643

Company Name: GROUNDWATER TECHNOLOGY
Phone #: (510) 370-3970
FAX #: (510) 370 3991
Company Address: 45 PORTICO WAY #4 MARTINEZ
Site Location: 2633 TELEGRAPH AVE.
Project Manager: BRIDGET BAXTER
Client Project ID: (#) A2020501.36
(NAME) G30542 SEARS 1058
Sampler Name (Print): HECTOR MEDINA

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (Specify)	Sampling: DATE	TIME
TRIP BLANK	01	1	X						X			X	X		3/1	
MW5	02	7	X						X			X	X			12:00
MW-1	03	7	X						X			X	X			12:40
MW-6	04	7	X						X			X	X			12:20
MW-7	05	7	X						X			X	X		5	12:30
MW8	06	7	X						X			X	X			12:40
MW2	07	7	X						X			X	X			12:50
MW4	08	7	X						X			X	X			13:00
DMW4	09	2	X						X			X	X		1/6	13:10

ANALYSIS REQUEST | OTHER

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☒ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash-Point ☐ Reactivity ☐	TPH MOTOR OIL (8015)	BTEX (8020)	DISSOLVED LEAD CD, CR, NI, ZN
	X																				X		
X																					X		X	X
																					X	X		
X																					X		X	X
X																					X		X	X
X																					X		X	X
X																					X		X	X
X																					X		X	X
X																					X		X	
																						X		

TAT
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other ____
Business Days ☐

Special Handling
GTEL Contact ____
Quote/Contract # ____
Confirmation # ____
P.O. # ____

QA/QC Level
Blue ☐ CLP ☐ Other ☐ ____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☐

REMARKS:
SAMPLES FOR METALS UNACIDIFIED
PLEASE FILTER (TAT) AS CONTRACTED

Lab Use Only Lot #:
Storage Location
No Seals 1°C
Work Order #:

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	3/5/96	15:45	Received by:
Relinquished by:	3/5/96	16:30	Received by:
Relinquished by:	3/6/96	0830	Received by Laboratory:

Waybill #