R0480

GROUNDWATER TECHNOLOGY ®

Groundwater Technology, Inc.
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January 17, 1996

Mr. Dale Klettke
Alameda County, Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA. 94502-6557

SUBJECT: Quarterly Groundwater Monitoring and Sampling Report
Former Sears Store 1058
2633 Telegraph Avenue, Oakland, California
GTI Project 020200094

Dear Mr. Klettke:

On behalf of Sears, Roebuck and Co., Groundwater Technology, Inc. presents the monthly groundwater monitoring data collected on September 15 and October 20, 1995, and the quarterly monitoring and sampling data collected on November 15 and December 11, 1995, from the site referenced above. Well MW-8 was initially sampled on November 15, but the sample container was broken in transit. The well was resampled on December 11. 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. Groundwater samples from monitoring well MW-4 were 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) 671-2387.

Sincerely,
Groundwater Technology, Inc.

Mike Wray

Michael J. Wray
Project Manager

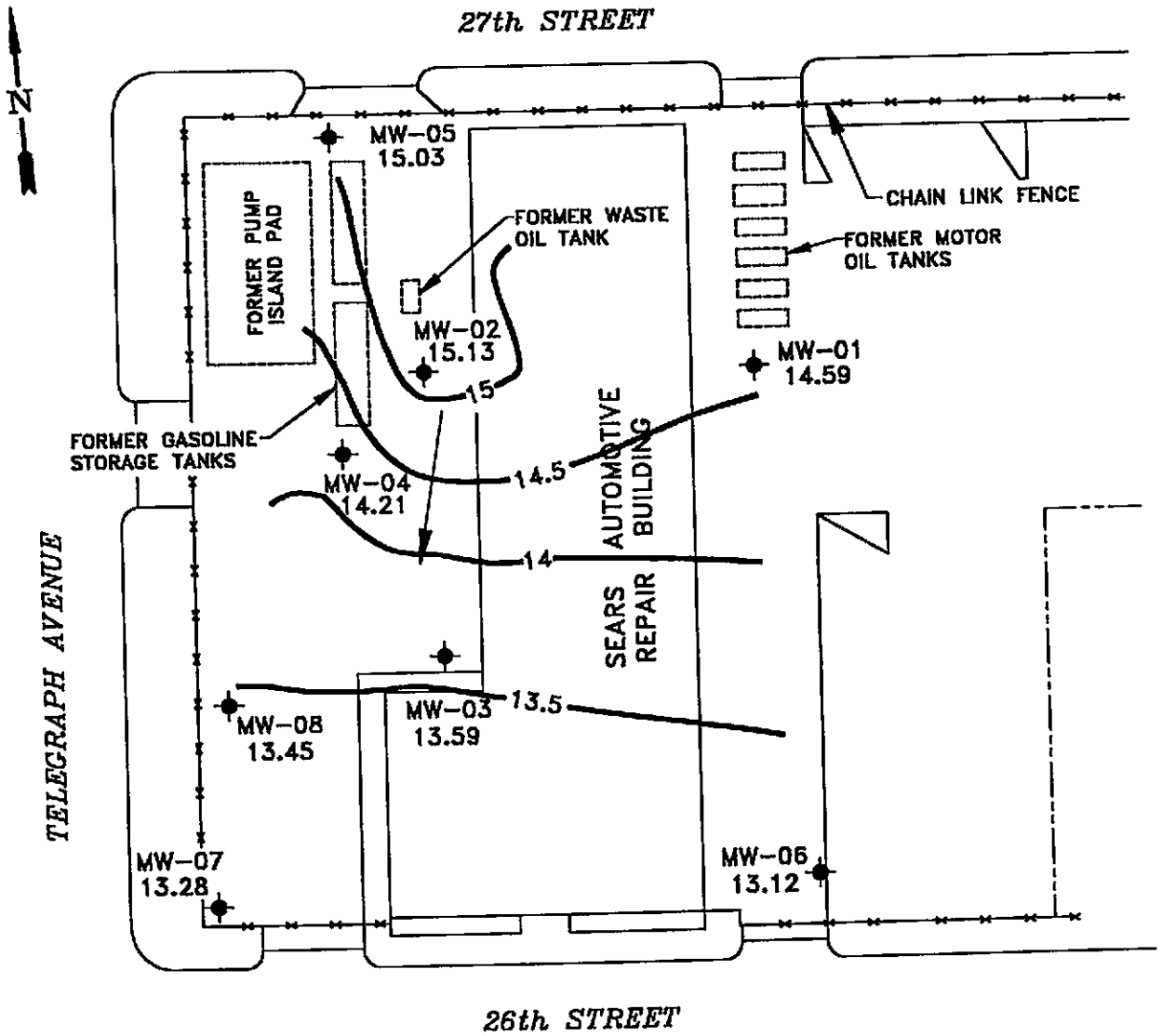
Attachments

cc: Bernadine Palka, PE

ATTACHMENT 1

Figures

1. Potentiometric Surface Map (11/15/95)
2. Concentrations of Benzene, TPH-as-Gasoline and TPH-as-Motor Oil in Groundwater (11/15/95)



EDVARDAS (ED) K. SIMONS
No. 4422
STATE OF CALIFORNIA

LEGEND

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

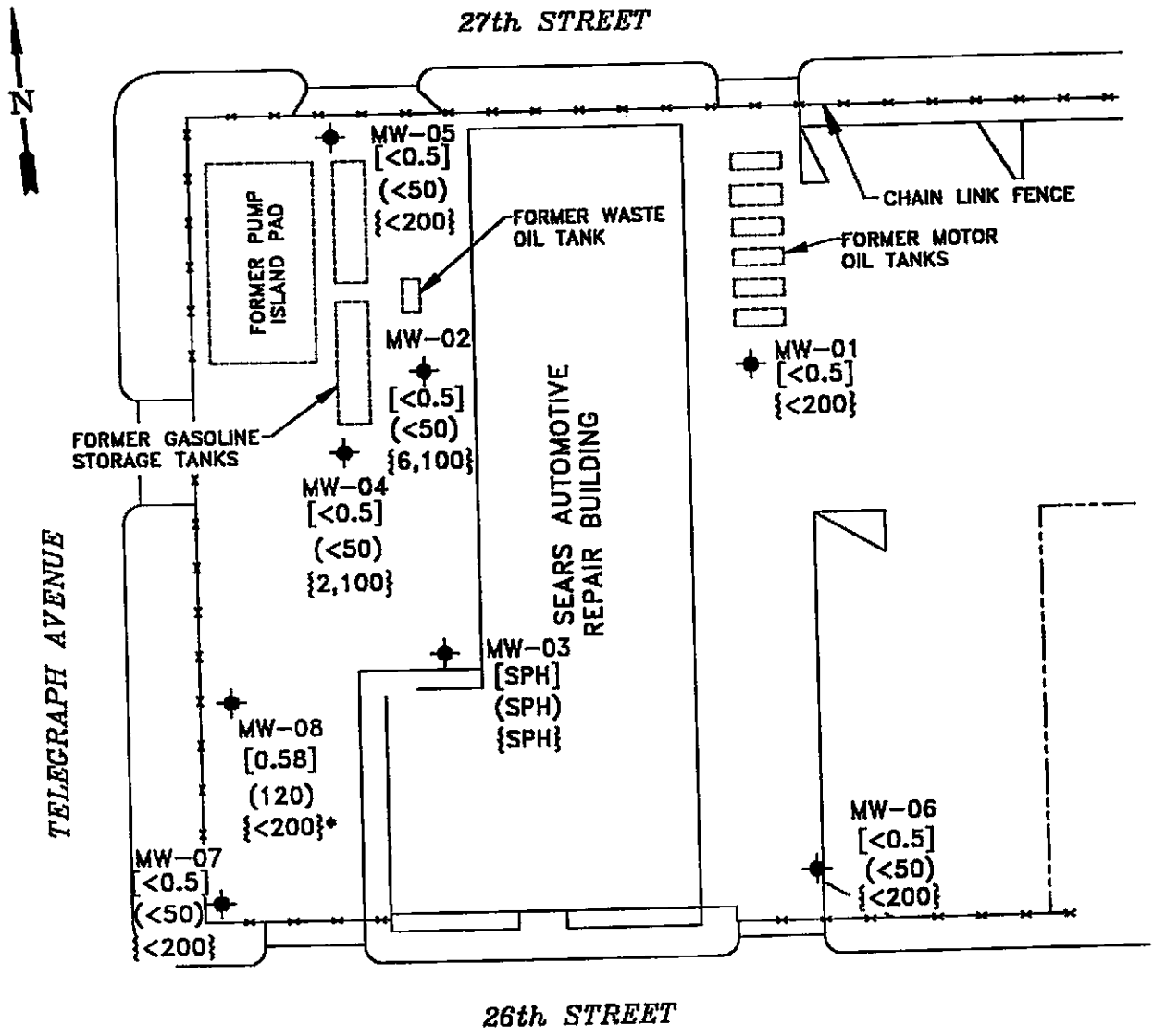
NOTE:
1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.

GROUNDWATER TECHNOLOGY

0 FEET 40
SCALE

POTENTIOMETRIC SURFACE MAP (11/15/95)

CLIENT: SEARS, ROEBUCK AND CO. SITE NO. 1058	FILE: S0094PSM, (1:40)	PROJECT NO.: 020200094	PM	PE/RG	
	REV.			FIGURE: 1	
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	DES. SS	DET. SS	DATE: 1/5/96		



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

REGISTERED GEOLOGIST
EDVARDAS (ED) K. SIMONIS
No. 4422
STATE OF CALIFORNIA

GROUNDWATER TECHNOLOGY

0 FEET 40
SCALE

CONCENTRATIONS OF BENZENE, TPH-AS GASOLINE & TPH-AS-MOTOR OIL IN GROUNDWATER (11/15 & 12/11/95))

CLIENT: SEARS, ROEBUCK AND CO. SITE NO. 1058	FILE: S0094BT	PROJECT NO.: 02020094		PM	PE/RG Es
	REV.				FIGURE: 2
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	DES. SS	DET. SS	DATE: 1/5/96		

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

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(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

(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	13.23
		10/20/95	12.86	12.03	0.03	13.47
		11/15/95	12.81	12.74	0.07	13.48

(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

(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

(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

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
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

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	--	[e]<250	--	--
	12/01/94	0.4	0.4	<0.3	6.6	--	[e]<250	--	--
	03/08/95	<0.3	0.6	<0.3	2.7	--	[e]<250	--	--
	06/09/95	<0.3	1.4	4.7	5.6	--	[e]<250	--	--
	08/29/95	0.3	0.9	3.9	2.8	--	[e]<250	--	--
	11/15/95	<0.5	<0.5	<0.5	27	--	[e]<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	--	[a]ND
	09/16/93	<0.3	<0.3	<0.3	<0.5	28	**<100	--	[a]ND
	12/01/93	<0.3	<0.3	<0.3	1	68	--	--	[a]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	[e]<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	--	[h]20
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	6,100	--	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	--	--	--	--	--	--	--	--
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]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	--	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-5	12/30/92	<0.3	<0.3	<0.3	<0.5	37	--	<1	[bc]5
	03/24/93	<0.3	<0.3	<0.3	0.5	19	--	2	[*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
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
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
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	--	--

GROUNDWATER TECHNOLOGY

(Table 2 continues)

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

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 Merano
Schedule:
Job No. 020200094.030542

PREPATORY COMMENTS

Visit Date: 9/15/95 Arrival Time: 8:00Am Departure Time: 9:00Am

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

If you did not call, why not? NO REASON.

Weather: Rain Snow Sunny (Cloudy) Temperature: 65°

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

MW-1:	DTB_21.72	DTW	11.71	DTP		PT
MW-2:	DTB_21.79	DTW	11.42	DTP		PT
MW-3:	DTB_24.67	DTW	13.00	DTP	12.86	PT 0.14
MW-4:	DTB_22.97	DTW	11.99	DTP		PT
MW-5:	DTB_25.27	DTW	11.00	DTP		PT
MW-6:	DTB_22.05	DTW	11.35	DTP		PT
MW-7:	DTB_21.70	DTW	11.65	DTP		PT
MW-8:	DTB_22.14	DTW	12.70	DTP		PT

NOTES:
MW-1 INSTALLED NEW CAP + LOCK
THERE ARE TWO WATER DRUMS IN MW-1 WITH MONCKSS STICKERS.
6/9/95, WELL LIDS HAVE NO 9/16 BOLTS.

HOURS ESTIMATED: 3.00 HOURS USED: 1.00

* 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: 10/20/95
Job No. 020200094.030542

PREPATORY COMMENTS

Visit Date: 10/20/95 Arrival Time: 9:30 Departure Time: 12:00

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

If you did not call, why not? _____

Weather: Rain Snow Sunny (Cloudy) Temperature: _____

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

MW-1:	DTB_21.72	DTW	11.80	DTP	—	PT	—
MW-2:	DTB_21.79	DTW	~~11.32~~	DTP	—	PT	— 11.42 (DTW)
MW-3:	DTB_24.67	DTW	12.86	DTP	12.83	PT	0.03
MW-4:	DTB_22.97	DTW	12.00	DTP	—	PT	—
MW-5:	DTB_25.27	DTW	11.02	DTP	—	PT	—
MW-6:	DTB_22.05	DTW	11.32	DTP	—	PT	—
MW-7:	DTB_21.70	DTW	11.64	DTP	—	PT	—
MW-8:	DTB_22.14	DTW	12.69	DTP	—	PT	—

NOTES: I.P. QUIT. HAD TO GO TO THE OFFICE AND GET NEW ONE. *
ALL CAPS + LOCKS ARE IN GOOD WORKING CONDITION.
I CLEANED UP DIRT BUILD UP INSIDE WELL BOXES.
ALL WELLS MISSING 9/16 BOLTS. THERE ARE NO DRUMS ON SITE. ✓ MAP SHOWS PREVIOUS STORAGE LOCATION
NOTE: DID NOT BILL TIME DRIVING BACK TO OFFICE. ☆

HOURS ESTIMATED: 3.00 HOURS USED: 3.00

* 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: 11-15-95
Job No. 020200094.030543

WELL WATER SAMPLING - TASK Nr: 030804 [QUARTERLY]
Gauge wells for volume of water & bail 3 well Vol,s. DECON all equipment & change gloves, string, etc. between each well.

Well ID					
MW-1:	DTB_21.72	DTW 11.61	SAT. THICK —	#GAL. BAILED 5
MW-2:	DTB_21.79	DTW 11.37	SAT. THICK —	#GAL. BAILED 5
MW-3:	DTB_24.67	DTW 12.81	SAT. THICK 0.07	#GAL. BAILED —
MW-4:	DTB_22.97	DTW 11.96	SAT. THICK —	#GAL. BAILED 5
MW-5:	DTB_25.27	DTW 11.95	SAT. THICK —	#GAL. BAILED 6
MW-6:	DTB_22.05	DTW 11.20	SAT. THICK —	#GAL. BAILED 5
MW-7:	DTB_21.70	DTW 11.60	SAT. THICK —	#GAL. BAILED 5
MW-8:	DTB_22.14	DTW 12.67	SAT. THICK —	#GAL. BAILED 5

MW-3 DTP 12.74

NOTES: MONITORED ALL WELLS, SAMPLED 7 WELLS, MW3 HAS Product, 07 (NOTE: NEED TO BUY 9/16 HARDENED BOLTS FOR WELLS). OSH? TWO DRUMS ARE LEFT ON SITE WITH Non class labels.

HOURS ESTIMATED: 6.00 HOURS USED 4.00

FINAL CHECKS

TRAVEL. 2.00
TOTAL. 6.00

Are Wells Locked? (YES) NO Why Not?

Are Manholes Bolted Down? YES (NO) Why Not?
NO BOLTS

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200095.030543

Date: 11/15/95

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Project Manager: Mike Wray

Well ID: MW5

Well Diameter: 2

DTW Measurements:
Initial: 11.95
Recharge: 11.82
DTB: 25.27

Calc Well Volume: 2.1 13.32 gal
Well Volume: x3 6.5 gal

Purge Method
Peristaltic
Gear Drive
Submersible X

Pump Depth ft.
Hand Bailed
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:
Other:

CALIBRATED YSI TO 7+4 BUFFER SOLUTION @ 11:00 ON 11-15-95

Time	Temp X C F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
11:11	19.2	0.72	6.99	1	cloudy	
11:12	20.1	0.73	6.73	2		
11:13	21.2	0.76	6.53	3		
11:14	22.6	0.77	6.41	4		
11:15	22.7	0.77	6.40	5		
11:16	22.9	0.76	6.40	6	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200095.030543

Date: 11/15/95

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Project Manager: Mike Wray

Well ID: MW-1

Well Diameter: 2

DTW Measurements:
Initial: 11.61
Recharge: 11.56
DTB: 21.72

Calc Well Volume: 1.6 gal
Well Volume: 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
11:26	22.1	0.62	6.34	1	BROWN, CLOUDY	
11:27	22.3	0.62	6.31	2		
11:28	22.1	0.61	6.29	3		
11:29	22.2	0.61	6.30	4		
11:30	22.1	0.62	6.29	5		

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200095,030543

Date: 11/15/95

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Project Manager: Mike Wray

Well ID: MW-6

Well Diameter: 2

DTW Measurements:
Initial: 11.20
Recharge: 11.18
DTB 22.05

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
11:38	21.8	0.58	6.34	1	CLOUDY	
11:39	21.6	0.58	6.30	2	↓	
11:40	21.7	0.58	6.27	3		
11:41	21.6	0.59	6.26	4		
11:42	21.5	0.57	6.26	5	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200095.030543

Date: 11/15/95

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Project Manager: Mike Wray

Well ID: MW-7

Well Diameter: 2

DTW Measurements:
Initial: 11.96
Recharge: 11.94
DTB: 21.70

Calc Well Volume: 1.5 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
11:49	21.8	0.57	6.28	1	Cloudy	Grey
11:50	22.0	0.56	6.31	2	↓	
11:51	22.2	0.61	6.35	3	cloudy	
11:52	22.3	0.61	6.40	4		
11:53	22.3	0.54	6.43	5	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200095.030543

Date: 11/15/95

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Project Manager: Mike Wray

Well ID: MW-8

Well Diameter: 2

DTW Measurements:
Initial: 12.67
Recharge: 12.66
DTB: 22.14

Calc Well Volume: 1.5 gal
Well Volume: 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
12:02	22.0	0.67	6.39	1	cloudy	
12:03	22.4	0.70	6.34	2	↓	
12:04	22.7	0.71	6.36	3		
12:05	22.7	0.73	6.40	4		
12:06	22.6	0.72	6.39	5	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200095.030543

Date: 11/15/95

Page 6 of 8

Project Manager: Mike Wray

Well ID: MW-2

Well Diameter: 2

DTW Measurements:
Initial: 11.37
Recharge: 11.26
DTB: 21.79

Calc Well Volume: 1.6 gal
Well Volume: 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
12:28	22.2	0.59	6.41	1	cloudy	
12:29	22.3	0.61	6.42	2	↓	
12:30	22.4	0.61	6.43	3		
12:31	22.4	0.60	6.44	4		
2:32	22.4	0.62	6.45	5		

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200095.030543

Date: 11/15/95

Page 7 of 8

Project Manager: Mike Wray

Well ID: MW-4

Well Diameter: 2

DTW Measurements:
Initial: 11.96
Recharge: 11.89
DTB: 22.97

Calc Well Volume: 1.7 gal
Well Volume: 5 gal

Purge Method
Peristaltic_____
Gear Drive_____
Submersible_____

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
12:40	22.2	0.60	6.40	1	cloudy	
12:41	22.4	0.63	6.38	2		
12:42	22.7	0.61	6.37	3		
12:43	23.0	0.63	6.38	4		
12:44	22.9	0.61	6.39	5	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020200095.030543

Date: 11/15/95

Page 8 of 8

Project Manager: Mike Wray

Well ID: MW-3

Well Diameter: 2

DTW Measurements:
Initial: -
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
						DTP=12.74 DTW=12.81
						PT=0.07

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number:

Date: 12/11/95

Page 1 of 1

Project Manager: Mike Wray

Well ID: MW-8

Well Diameter: 2

DTW Measurements:
Initial: 11.80
Recharge:
DTB: 22.10

Calc Well Volume: 1.6 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
15:00	19.6	1.00	7.03	1	clear	
15:01	19.7	1.03	7.03	2	↓	
15:02	19.9	1.04	7.05	3		
15:03	19.9	1.03	7.05	4		
15:04	19.9	1.03	7.06	5	↓	

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)

December 8, 1995

Mike Wray
Groundwater Technology, Inc.
4057 Port Chicago Hwy
Concord, CA 94520

RE: GTEL Client ID: 020200094
Login Number: W5110417
Project ID (number): 020200094
Project ID (name): SEARS/2633 TELEGRAPH AVE/BERKELEY/CA

Dear Mike Wray:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 11/18/95 under Chain-of-Custody Number(s) 40301.

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

ANALYTICAL RESULTS
Results For Multiple Methods

GTEL Client ID: 020200094
Login Number: W5110417
Project ID (number): 020200094
Project ID (name): SEARS/2633 TELEGRAPH AVE/BERKELEY/CA

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W5110417-02	W5110417-04	W5110417-05	W5110417-06
	Client ID	MW5	MW6	MW7	MW8
	Date Sampled	11/15/95	11/15/95	11/15/95	11/15/95
EPA 6010A	Date Prepared	11/27/95	11/27/95	11/27/95	11/27/95
EPA 6010A	Date Analyzed	11/28/95	11/28/95	11/28/95	11/28/95
EPA 6010A	Dilution Factor	1.00	1.00	1.00	1.00
EPA 7421	Date Prepared	11/28/95	11/28/95	11/28/95	11/28/95
EPA 7421	Date Analyzed	11/29/95	11/29/95	11/29/95	11/29/95
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	< 1.0
Nickel	EPA 6010A	40.	ug/L	< 40.	< 40.	< 40.	< 40.
Zinc	EPA 6010A	20	ug/L	< 20.	31.	< 20.	21.

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.

W5110417-02:
All the 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: 020200094
Login Number: W5110417
Project ID (number): 020200094
Project ID (name): SEARS/2633 TELEGRAPH AVE/BERKELEY/CA

Method: See Below
Matrix: Aqueous

	GTEL Sample Number	W5110417-07	W5110417-08	--	--
	Client ID	MW2	MW4	--	--
	Date Sampled	11/15/95	11/15/95	--	--
EPA 6010A	Date Prepared	11/27/95	11/27/95	--	--
EPA 6010A	Date Analyzed	11/28/95	11/28/95	--	--
EPA 6010A	Dilution Factor	1.00	1.00	--	--
EPA 7421	Date Prepared	11/28/95	11/28/95	--	--
EPA 7421	Date Analyzed	11/29/95	11/29/95	--	--
EPA 7421	Dilution Factor	1.00	1.00	--	--

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

Project Number: 020200094
(030543)
Sears
2633 Telegraph Ave.
Berkeley, CA
Work Order Number: W5-11-0417
Date Reported: 12-05-95

ANALYTICAL RESULTS

Total Petroleum Hydrocarbons as Lubricating 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	11-15-95	11-20-95	12-01-95	<200	200
03	MW-1	11-15-95	11-20-95	12-01-95	<200[c]	200
04	MW-6	11-15-95	11-20-95	12-01-95	<200	200
05	MW-7	11-15-95	11-20-95	12-01-95	<200	200
07	MW-2	11-15-95	11-20-95	12-01-95	**6100**	200
08	MW-4	11-15-95	11-20-95	12-01-95	**2100**	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 C, November 1986. Extraction by EPA Method 3510.

b Lubricating 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 lubricatingoil 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 lubricating oil, an infrared method is recommended.

c Chromatographic data indicates the presence of material lighter than lubricating oil in this sample.

Sequoia Analytical

680 Chesapeake Drive	Redwood City, CA 94063	(415) 364-9600	FAX (415) 364-9233
404 N. Wiget Lane	Walnut Creek, CA 94598	(510) 988-9600	FAX (510) 988-9673
819 Striker Avenue, Suite 8	Sacramento, CA 95834	(916) 921-9600	FAX (916) 921-0100

GTEL Wichita Login: W5-11-0417

GTEL
4080 Pike Lane, Ste. C
Concord, CA 94520
Attention: Justin Ward

Client Project ID: #W5-11-0417
Sample Matrix: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 511-1950

Sampled: Nov 15, 1995
Received: Nov 22, 1995
Reported: Dec 1, 1995

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 511-1950 MW-5	Sample I.D. 511-1952 MW-6	Sample I.D. 511-1953 MW-7	Sample I.D. 511-1954 MW-8	Sample I.D. 511-1955 MW-2	Sample I.D. 511-1956 MW-4
QC Batch Number:		GC112895 802009A	GC112895 802009A	GC112895 802009A	GC112895 802009A	GC112895 802009A	GC112895 802009A
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	120	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	N.D.	0.58	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	0.54	N.D.	N.D.
Chromatogram Pattern:		--	--	--	Gasoline & Unidentified Hydrocarbons >C8	--	--
Quality Control Data							
Report Limit Multiplication Factor:		1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:		11/28/95	11/28/95	11/28/95	11/28/95	11/28/95	11/28/95
Instrument Identification:		HP-9	HP-9	HP-9	HP-9	HP-9	HP-9
Surrogate Recovery, %: (QC Limits = 70-130%)		90	87	89	83	90	92

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Kenneth L. Wimer
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

GTEL Wichita Login: W5-11-0417

GTEL
4080 Pike Lane, Ste. C
Concord, CA 94520
Attention: Justin Ward

Client Project ID: #W5-11-0417
Sample Descript: Water, MW-1
Analysis Method: EPA 5030/8020
Lab Number: 511-1951

Sampled: Nov 15, 1995
Received: Nov 22, 1995
Analyzed: Nov 28, 1995
Reported: Dec 1, 1995

QC Batch Number: GC112895802007A
Instrument ID: HP-7

AROMATIC VOLATILE ORGANICS (EPA 8020)

Analyte	Detection Limit µg/L	Sample Results µg/L
Benzene	0.50	N.D.
Chlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	0.50	N.D.

Surrogates	Control Limit %		% Recovery
1,3,5-Trifluorobenzene	50	150	87
4-Bromofluorobenzene	50	150	93

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

SEQUOIA ANALYTICAL, #1271

Kenneth L. Turner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

GTEL Wichita Login: W5-11-0417

GTEL
4080 Pike Lane, Sta. C
Concord, CA 94520
Attention: Justin Ward

Client Project ID: #W5-11-0417
Sample Descript: Water, DUP
Analysis Method: EPA 5030/8020
Lab Number: 511-1957

Sampled: Nov 15, 1995
Received: Nov 22, 1995
Analyzed: Nov 28, 1995
Reported: Dec 1, 1995

QC Batch Number: GC112895802007A
Instrument ID: HP-7

AROMATIC VOLATILE ORGANICS (EPA 8020)

Analyte	Detection Limit µg/L	Sample Results µg/L
Benzene	0.50	N.D.
Chlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Toluene	0.50	N.D.
Total Xylenes	1.0	N.D.

Surrogates	Control Limit %		% Recovery
1,3,5-Trifluorobenzene	50	150	92
4-Bromofluorobenzene	50	150	104

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

SEQUOIA ANALYTICAL, #1271

Kenneth L. Wimer
Project Manager

Sequoia Analytical

680 Chesapeake Drive	Redwood City, CA 94063	(415) 364-9600	FAX (415) 364-9233
404 N. Wiget Lane	Walnut Creek, CA 94598	(510) 988-9600	FAX (510) 988-9673
819 Striker Avenue, Suite 8	Sacramento, CA 95834	(916) 921-9600	FAX (916) 921-0100

GTEL Wichita Login: W5-11-0417

GTEL
4080 Pike Lane, Ste. C
Concord, CA 94520
Attention: Justin Ward

Client Project ID: #W5-11-0417
Matrix: Liquid
QC Sample Group: 5111950-957

Reported: Dec 1, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC112895	GC112895	GC112895	GC112895
	802009A	802009A	802009A	802009A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD #:	5111920	5111920	5111920	5111920
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/28/95	11/28/95	11/28/95	11/28/95
Analyzed Date:	11/28/95	11/28/95	11/28/95	11/28/95
Instrument I.D.#:	HP-9	HP-9	HP-9	HP-9
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	19	20	19	64
MS % Recovery:	95	100	95	107
Dup. Result:	19	20	20	67
MSD % Recov.:	95	100	100	112
RPD:	0.0	0.0	5.1	4.4
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	4LCS112895	4LCS112895	4LCS112895	4LCS112895
Prepared Date:	11/28/95	11/28/95	11/28/95	11/28/95
Analyzed Date:	11/28/95	11/28/95	11/28/95	11/28/95
Instrument I.D.#:	HP-9	HP-9	HP-9	HP-9
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	17	19	19	63
LCS % Recov.:	87	93	94	106

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Kenneth L. Wimer
Project Manager

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

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

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

GTEL Wichita Login: W5-11-0417

GTEL
4080 Pike Lane, Ste. C
Concord, CA 94520
Attention: Justin Ward

Client Project ID: #W5-11-0417
Matrix: Liquid
QC Sample Group: 5111850-957

Reported: Dec 1, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Chloro-benzene
QC Batch#:	GC112895	GC112895	GC112895
	802007A	802007A	802007A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	I.Z.	I.Z.	I.Z.
MS/MSD #:	BLK112895	BLK112895	BLK112895
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	11/28/95	11/28/95	11/28/95
Analyzed Date:	11/28/95	11/28/95	11/28/95
Instrument I.D.#:	HP-7	HP-7	HP-7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L
Result:	11	11	10
MS % Recovery:	109	112	103
Dup. Result:	11	12	11
MSD % Recov.:	113	116	107
RPD:	3.6	3.5	3.8
RPD Limit:	0-30	0-30	0-30

LCS #:	LCS112895	LCS112895	LCS112895
Prepared Date:	11/28/95	11/28/95	11/28/95
Analyzed Date:	11/28/95	11/28/95	11/28/95
Instrument I.D.#:	HP-7	HP-7	HP-7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L
LCS Result:	10	10	9.3
LCS % Recov.:	101	101	93

MS/MSD LCS Control Limits	39-150	46-148	55-135

SEQUOIA ANALYTICAL, #1271

Kenneth L. Wimer
Project Manager

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

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

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

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

Project ID (Name): 2633 Telegraph
Work Order Number: W5-12-0291

January 3, 1996

Mike Wray
Groundwater Technology, Inc.
4057 Port Chicago Hwy
Concord, CA 94520

Dear Mike Wray:

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories on 12-15-95 under chain-of custody 40358.

A formal quality control/quality assurance 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.

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

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

Sincerely,

Project Coordinator

Terry R. Loucks
Laboratory Director

Project Number: 2633 Telegraph
Work Order Number: W5-12-0291
Date Reported: 01-03-96

ANALYTICAL RESULTS

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

Sample Identification		Date Sampled	Date Extracted	Date Analyzed	Concentration, ug/L	Reporting Limit, ug/L
GTEL No.	Client ID					
01	MW-8	12-11-95	12-18-95	12-31-95	<200[c]	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 Lubricating 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 chromatogrpahic method. Quantitation obtained for lubricating 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 lubricating oil, an infrared method is recommended.

c Chromatographic data indicates the presence of material lighter than motor oil in the sample.

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

40358

Company Name: GROUNDWATER TECHNOLOGY

Phone #:

FAX #:

Company Address: 4057 PORT CHICAGO HWY

Site Location: 2633 TELEGRAPH

Project Manager: MIKE WRAY

Client Project ID: (#)

(NAME)

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

Sampler Name (Print): HECTOR MERIN

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
MW-8	01	4	X									X	X		12/11	1530
	02															
	03															

ANALYSIS REQUEST | OTHER

BTEX 602 ☐ 8020 ☐ with MTBE ☐
BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐
Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐
Hydrocarbon Profile (SIMPIS) ☐
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 ☐
X TPH-as-Motor Oil

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:

Lab Use Only Lot #: No Seals 2°C
Storage Location
Work Order #:

CUSTODY RECORD

Relinquished by Sampler: [signature]
Date 12/13/95 Time 12:00
Received by: [signature]

Relinquished by: [signature]
Date 12/14/95 Time 7:00
Received by:

Relinquished by:
Date 12/15/95 Time 0815
Received by Laboratory:
Waybill # 0267 7791 72 [signature]