GROUNDWATER TECHNOLOGY

Groundwater Technology, Inc.
275 East South Temple, Suite 321, Salt Lake City, UT 84111
Tel: (801) 532-1003 Fax: (801) 532-1056

August 2, 1994

Project No. 020204554

Ms. Bernadine Palka
Sears, Roebuck and Company
3333 Beverly Road, Building A2-281A
Department 824C
Hoffman Estates, IL 60179

SUBJECT: Quarterly Groundwater Monitoring and Sampling Report
May through July 1994
Former Sears 1058
2633 Telegraph Avenue, Oakland, California

Dear Ms. Palka:

Groundwater Technology, Inc. is pleased to submit this Quarterly Groundwater Monitoring and Sampling Report for the period May through July 1994. This report presents the results of monitoring well gauging and sample analyses for the former Sears Automotive Center located at 2633 Telegraph Avenue, Oakland, California (Attachment 1, Figure 1). The monitoring and sampling activities were performed and this report prepared according to the Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, dated August 10, 1990, the State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, and the sampling requirements approved by Alameda County Health Care Services Agency, October 7, 1992, and amended in correspondence to Sears, dated June 1, 1993.

MONITORING AND SAMPLING ACTIVITIES

Monitoring Well Gauging

On June 30, 1994, liquid levels were measured in the eight monitoring wells (MW-1 through MW-8) using an electrical/optical INTERFACE PROBE™ Well Monitoring System which can detect both water and separate-phase product. A measurable thickness of separate-phase hydrocarbons was detected in well MW-3 during this reporting period.

Depth to groundwater at the site ranged from approximately 13 to 16 feet below the well casings on June 30, 1994, which represents a slight increase (<0.4 feet) in comparison to the previous monitoring date (04/01/94). Liquid level monitoring data were used to calculate groundwater elevations and to construct a potentiometric surface map (Figure 1). Current and historic liquid level

monitoring data are presented in Attachment 2, Table 1. The local groundwater flow direction was to the south on June 30, 1994.

Monitoring Well Sampling

On December 1, 1993, groundwater samples were collected from 7 of the 8 monitoring wells (MW-3 contained product) for analysis of hydrocarbon constituents. Before sampling, the wells were purged of approximately 3 well-casing volumes. The temperature, conductivity, and pH of the purge water were measured during purging. Copies of the field data are included in Attachment 3. Water purged from the wells was placed into 55-gallon drums dedicated to each well. The drums were labeled, and stored at the site. All downhole equipment and supplies were washed between sampling locations in a solution of Alconox and water, rinsed with tap water, and final rinsed with deionized water.

Groundwater samples were collected using a Teflon™ bailer and decanted into appropriate containers. The sample containers were labeled and placed on ice in an insulated cooler for transport to a California-certified laboratory under chain-of-custody protocol.

LABORATORY ANALYSES AND RESULTS

Water samples collected from the wells were analyzed for benzene, toluene, ethylbenzene, total xylenes (BTEX), and total petroleum hydrocarbons as gasoline (TPH-G) using EPA Methods 5030/8020 and Modified EPA Method 8015, respectively. Water samples were also analyzed for TPH as motor oil (TPH-M) using the gas chromatograph flame-ionization detector (GC-FID) method. In addition, water samples from six of the eight wells (all except MW-1 and MW-3) were analyzed using EPA methodology for selected metals which included cadmium, chromium, lead, nickel, and zinc. The laboratory reports and chain-of-custody records are included in Attachment 4.

The results of groundwater sampling on June 30, 1994 are presented in the summary of Historical Groundwater Analytical Results (Attachment 2, Table 2). Detectable concentrations of dissolved metals were not reported in the groundwater samples collected from well MW-2 or wells MW-4 through MW-8. Water samples from wells MW-1 and MW-3 were not analyzed for the selected metal analytes.

TPH-G concentrations of 450, 33, and 250 µg/l were reported in groundwater samples collected from wells MW-4, MW-7 and MW-8, respectively. Wells MW-2, MW-5, and MW-6 were reported to have non-detectable TPH-G concentrations. Figure 2 illustrates the interpreted distribution to TPH-G at the site on June 30, 1994. Detectable TPH-M concentrations were reported only in water samples

collected from wells MW-2 (100 µg/l) and MW-4 (130 µg/l). BTEX concentrations were reported below California Maximum Contaminant Levels (MCLs) in each groundwater sample analyzed.

In summary, results suggest that groundwater is impacted primarily south of the former gasoline and waste oil storage tanks, as a result of hydrocarbon migration in the direction of groundwater flow. The extent of groundwater impact is uncertain in the off-site area southwest of the former tanks.

WORK TO BE COMPLETED FROM AUGUST THROUGH OCTOBER 1994

Below is the schedule of planned work tasks at the site for August through October 1994:

Date	Task
08,09/94	Monthly well gauging including the recovery of separate-phase product from well MW-3 by hand bailing.
10/94	Monthly well gauging and quarterly sampling.

~ 7th of Sept, 8 12 15 30

If you have any questions or comments concerning this report, please contact Barry Temple at (801) 532-1003.

~ Mike Wray

Sincerely,
Groundwater Technology, Inc.

REGISTERED GEOLOGIST
BARRY M. TEMPLE
NO. 5914
STATE OF CALIFORNIA

Barry Temple
CA Registered Geologist No. 5914

Reviewed by:

Eileen Brennan (ET)

Eileen Brennan
Zone Project Manager

on for 337-9335

Attachment 1 Figures
Attachment 2 Tables
Attachment 3 Field Data
Attachment 4 Laboratory Reports and Chain-of-Custody Record

cc: Thomas Peacock, Alameda County Health Dept.
Richard Hiett, Regional Water Quality Control Board
Dave Daniels, Groundwater Technology, Inc.
Mike Girloni, Groundwater Technology, Inc.

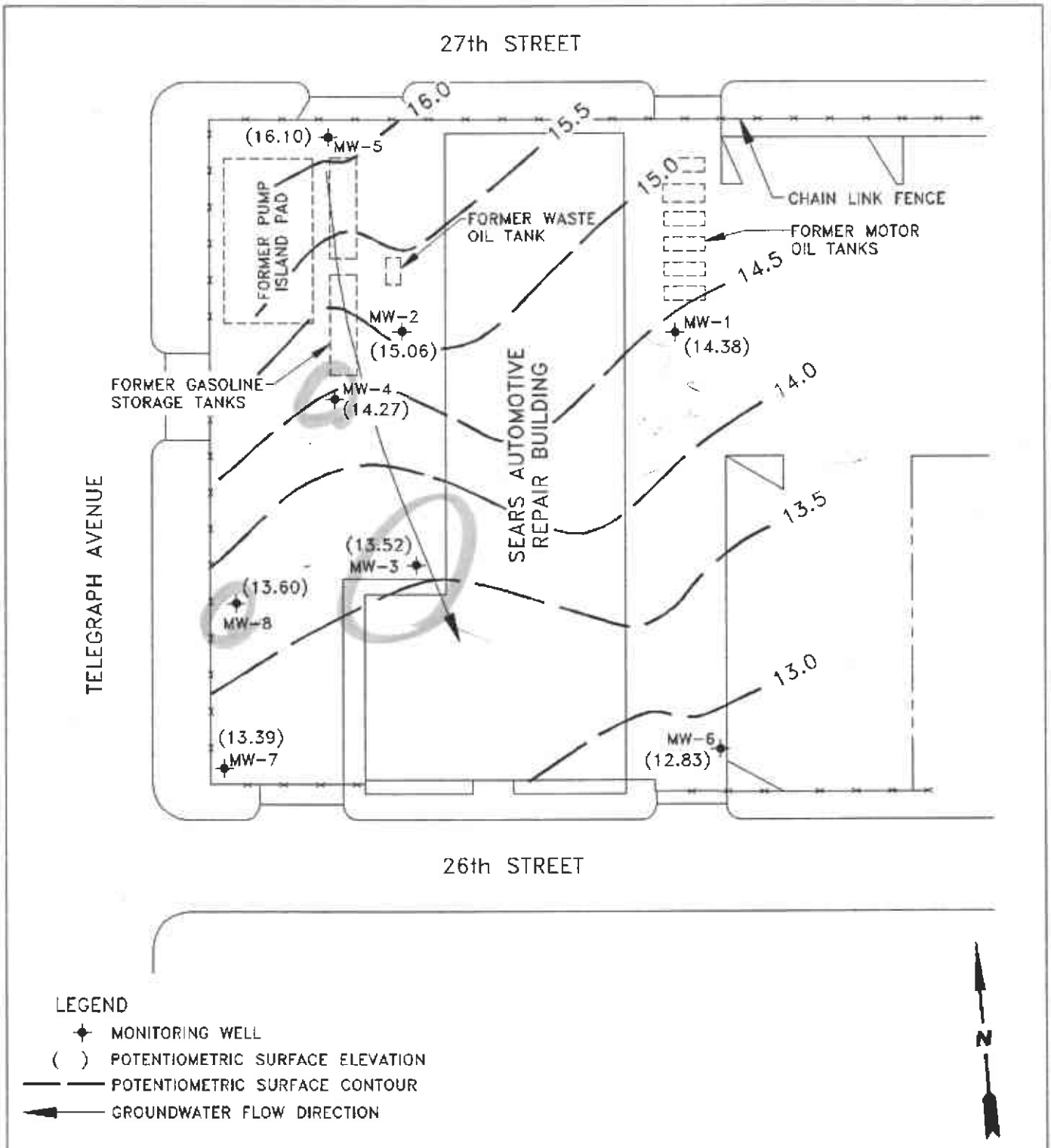
CA\10580694.QTR

GROUNDWATER TECHNOLOGY

ATTACHMENT 1

Figures

Figure 1 Potentiometric Surface Map (06/30/94)



GROUNDWATER TECHNOLOGY

0 FEET 40
SCALE

POTENTIOMETRIC SURFACE MAP (06/30/94)

CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058	FILE: PSM694	PROJECT NO: 020204554	PM	RG/PE	
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	REV:			FIGURE: 1	
	DES: BT	DET: PJWH	DATE: 07/29/94		

ATTACHMENT 2

Tables

TABLE 1
SUMMARY OF HISTORICAL GROUNDWATER MONITORING DATA
Former Sears Automotive Center 1058
2633 Telegraph Avenue, Oakland, California

Well No.	Casing Elev.	Date	DTW	DTP	PT	Groundwater Elevation
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
		06/30/94	11.82	–	–	14.38
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
		06/30/94	11.44	–	–	15.06

TABLE 1
SUMMARY OF HISTORICAL GROUNDWATER MONITORING DATA
Former Sears Automotive Center 1058
2633 Telegraph Avenue, Oakland, California

Well No.	Casing Elev.	Date	DTW	DTP	PT	Groundwater Elevation
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	NM	NM
		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
		06/30/94	12.84	--	--	13.52
MW-4	26.17	12/30/92	11.53	--	*	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
		06/30/94	11.90	--	--	14.27

TABLE 1
SUMMARY OF HISTORICAL GROUNDWATER MONITORING DATA
Former Sears Automotive Center 1058
2633 Telegraph Avenue, Oakland, California

Well No.	Casing Elev.	Date	DTW	DTP	PT	Groundwater Elevation
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
		06/30/94	10.88	--	--	16.10
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
		06/30/94	11.49	--	--	12.83
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
		06/30/94	11.49	--	--	13.39
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
		06/30/94	12.52	--	--	13.60

Elevation if feet above mean sea level
DTW = Depth to water (in feet)
DTP = Depth to product (in feet)
PT = Product thickness (in feet)
NM = Not monitored
* = Sheen observed (<0.01 foot)
-- = Product not detected

TABLE 2
SUMMARY OF HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS
Former Sears Automotive Center 1058
2633 Telegraph Avenue, Oakland, California
Concentrations in µg/L unless otherwise noted

Well ID	Date	B	T	E	X	TPH-G	TPH-M	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	–	–
MW-2	12/30/92	0.7	<0.3	<0.3	3	190	–	1	*ND
	03/24/93	0.6	<0.3	<0.3	2	120	–	<1	*ND
	06/21/93	0.3	<0.3	<0.3	0.7	82	**<100	–	*ND
	09/16/93	<0.3	<0.3	<0.3	<0.5	28	**<100	–	*ND
	12/01/93	<0.3	<0.3	<0.3	1	68	–	–	*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
MW-3	12/30/92	11	0.9	<0.3	2	910	–	20	*ND
	03/24/93	28	0.7	1	8	3,300	–	28	**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	*ND
	06/30/94	–	–	–	–	–	–	–	–
MW-4	12/30/92	2	<0.3	1	<0.5	1,200	–	<1	*ND
	03/24/93	<0.3	<0.3	<0.3	<0.5	750	–	2	**7
	06/21/93	<0.3	2	<0.3	0.5	660	19,000	–	*ND
	09/16/93	0.3	<0.3	2	3	410	2,500	–	*ND
	12/01/93	<0.3	<0.3	<0.3	<0.5	150	390	–	*ND
	03/09/94	0.7	0.8	2	3.6	1,500	780	–	*ND
	06/30/94	<0.3	1.7	0.5	1.0	450	130	–	ND
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	–	*ND
	09/16/93	0.3	<0.3	<0.3	1	<10	<100	–	*ND
	12/01/93	<0.3	<0.3	<0.3	1	17	–	–	*ND
	12/30/93	–	–	–	–	–	<100	–	–
	03/09/94	<0.3	<0.3	<0.3	<0.5	22	<100	–	*ND
	06/30/94	<0.3	<0.3	<0.3	<0.5	<10	<100	–	ND
MW-6	12/27/93	<0.3	<0.3	<0.3	<0.5	<10	<100	<1	*70
	03/09/94	<0.3	<0.3	<0.3	<0.5	15	<100	–	*ND
	06/30/94	<0.3	<0.3	<0.3	<0.5	<10	<100	–	ND

TABLE 2
SUMMARY OF HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS
Former Sears Automotive Center 1058
2633 Telegraph Avenue, Oakland, California
Concentrations in µg/L unless otherwise noted

Well ID	Date	B	T	E	X	TPH-G	TPH-M	TPH (mg/l)	Dissolved Metals
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
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	--	[c]ND
	06/30/94	0.9	<0.3	<0.3	1.1	250	<100	--	ND

Results in micrograms per liter [µg/l] except where noted otherwise.

BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes (EPA Methods 5030, 8020)
TPH-G	=	Total petroleum hydrocarbons-as-gasoline (EPA Methods 5030 and modified EPA Method 8015)
TPH-M	=	Total petroleum hydrocarbons-as-motor oil (modified EPA Method 8015)
TPH	=	Total petroleum hydrocarbons (EPA Method 418.1 [SM 5520 FC])
mg/l	=	Milligrams per liter
--	=	Not analyzed
ND	=	Non-detectable (detection limits for each compound are listed in laboratory reports, included in Appendix D)
*	=	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.

ATTACHMENT 3

Field Data

SITE VISIT FORM
Groundwater Technology, Inc. - Concord, California

Project: 20204554.00 Technician: G. Mason 7/15/94
Site: SEARS/2633 Telegraph Ave. Scheduled: ~~6/20/94~~
Project Mgr: E. Brennan Site Mgr:

PREPARATORY COMMENTS

Visit Date: 6/30/94 Arrival Time: 08:00 Departure Time: 14:00

Called Project Manager? YES, NO. Time: 1200 Who: E Brennan

If You Did Not Call, Why Not? _____

Are You In Possession of a Site Safety Plan? (YES) NO

GROUNDWATER SAMPLING - Task Nr: 061002 [Quarterly]

1. Monitor and sample eight (8) well in the following order: MW-5, MW-1, MW-6, MW-7, MW-8, MW-2, MW-4 and MW-3. USE DISPOSABLE BAILERS.

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

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

EQUIPMENT NEEDED: 9/16" Ratchet to remove well lids. 1 or 2 55-gallon drums, I.P.

Labels Missing (X)
only one TBLB Label (need 2)
" " MW-4 dup Label

4. Complete detailed drum count.

5. Submit samples to GTEL lab in Concord ph# (510) ~~685-7852~~. NOTE ON COC "SAMPLES FOR METALS ARE UNACIDIFIED ~~PLAESE~~ FILTER."

6 - MW-2 BTEX TPH G only need 4

6. Sample wells as shown:

Analysis	Dup MW-4	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	
	2	4	10		8	10	10	10	10	
TPH-Motor Oil (8015)	X	X	X	X	X	X	X	X	X	2L AMBER/NONE
BTEX Only (8020)	X	(X)								3 VOA/HCL
BTEX/TPH-G			X	X	X	X	X	X	X	4 VOA/HCL
DISSOLVED LEAD			X	X	X	X	X	X	X	2-500ML PL/NONE
TOG (5520 D&F)				X						2L AMBER/NONE
Cd,Cr,Ni,Zn			(X)			(X)	(X)	(X)	(X)	2-500ML PL/NONE

Reviewed Date: 6/30/94
Reviewed By: _____
Work Acceptable: (Yes) No
Rework Required: Yes (No)

SITE VISIT FORM
Groundwater Technology, Inc. - Concord, California

Project: 20204554.00 Technician: G. MASON
Site: SEARS/2633 Telegraph Ave. Scheduled: ~~6/20/94~~
Project Mgr: E. Brennan Site Mgr:

GROUNDWATER SAMPLING (Continued) - Task Nr: 061002 [Quarterly]

**********DATA**********

MW-5: DTW 10.88 DTP_____ PT_____ TOC 26.98 DTB 25.27
Well Dia. 2 Bail Vol 8 AMT.Bailed 8 Product Odor? Y___ N X

MW-1: DTW 11.82 DTP_____ PT_____ TOC 26.20 DTB 21.72
Well Dia. 2 Bail Vol 5 AMT.Bailed 5 Product Odor? Y___ N X

MW-6: DTW 11.49 DTP_____ PT_____ TOC 24.32 DTB 22.05
Well Dia. 2 Bail Vol 6 AMT.Bailed 6 Product Odor? Y___ N X

MW-7: DTW 11.49 DTP_____ PT_____ TOC 24.88 DTB 21.70
Well Dia. 2 Bail Vol 6 AMT.Bailed 6 Product Odor? Y X N___

MW-8: DTW 12.52 DTP_____ PT_____ TOC 26.12 DTB 22.14
Well Dia. 2 Bail Vol 5 AMT.Bailed 5 Product Odor? Y X N___

MW-2: DTW 11.44 DTP_____ PT_____ TOC 26.50 DTB 21.79
Well Dia. 2 Bail Vol 6 AMT.Bailed 6 Product Odor? Y X N___

MW-4: DTW 11.90 DTP_____ PT_____ TOC 26.17 DTB 22.97
Well Dia. 2 Bail Vol 6 AMT.Bailed 6 Product Odor? Y X N___

SITE VISIT FORM
Groundwater Technology, Inc. - Concord, California

Project: 20204554.00 Technician: G. MASON
Site: SEARS/2633 Telegraph Ave. Scheduled: ~~6/20/94~~
Project Mgr: E. Brennan Site Mgr:

GROUNDWATER SAMPLING (Continued) - Task Nr: 061002 [Quarterly]

MW-3: DTW 12.84 DTP 12.82 PT _____ TOC 26.34 DTB 24.67

Well Dia. 2 Bail Vol _____ AMT.Bailed _____ Product Odor? Y X N ___

Hours Estimated	6.00	Hours Used	6.5

FINAL CHECKS

SITE SECURITY: well/covers/gates... secure? Y/N-If No, Explain (INE) 2-Sgal

WASTE COMPLIANCE: # of Drums w/: Water 19, Soil 15, Empty ___, Other ___ Steel buckets SO

Drums labeled? NA (Y) N-INE, Gen. Date: all, Label Type: Non-Class.

Soil pile? Y/N size: _____ cu.yds., Visqueen under/over pile? Y/N-INE

CUSTOMER SATISFACTION: Survey left? Y/N-INE, Site left clean? Y/N-INE

TECHNICIAN'S COMMENTS

Total Hours Estimated	6.00	Total Hours Used	6.5
Travel Time Estimated	1.50	Travel Time Used	1.5

Greg M
Technician

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020204554.061002

Date: [illegible]

Page 1 of 7

Project Manager: E. Brennan

Well ID: MW-5

Well Diameter: 2

DTW Measurements: Initial: 10.88 Recharge:

Calc Well Volume: 8 gal

Well Volume: 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
09:04	19.2	.45	5.72	2	brown	
09:05	20.4	.46	5.69	4	↓	
09:05	20.8	.47	5.71	6	↓	
09:06	20.9	.46	5.76	8	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Page 2 of 7

Project Number: 020204554.061002

Project Manager: E. Brennan

Well ID: MW-1

Well Diameter: 2

DTW Measurements:
Initial: 11.82
Recharge:

Calc Well Volume: 5 gal
Well Volume: gal

Purge Method
Peristaltic
Gear Drive
Submersible

Pump Depth ft.
Hand Bailed X
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:

Other:

Time	Temp X C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
09:19	20.3	.46	5.87	1	Red	
09:19	20.3	.48	5.83	2	1	
09:20	20.5	.47	5.77	4	brown	
09:20	20.5	.47	5.77	5	1	

Project Name: Shell - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Page 3 of 7

Project Number: 020204554.061002

Project Manager: E. Brennan

Well ID: MW-6

Well Diameter: 2

DTW Measurements:
Initial: 11.49
Recharge: _____

Calc Well Volume: 6 gal
Well Volume: _____ gal

Purge Method
Peristaltic _____
Gear Drive _____
Submersible _____

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

Instruments Used
YSI: X
Hydac: _____
Omega: _____

Other: _____

Time	Temp ✓ C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
09:43	20.1	.38	5.76	1	brown	
09:44	20.1	.38	5.78	3	↓	
09:45	20.2	.38	5.77	5		
09:45	20.1	.38	5.77	6		

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020204554.061002

Project Manager: E. Brennan

Well ID: MW-7

Well Diameter: 2

DTW Measurements:
Initial: 11.49
Recharge: _____

Calc Well Volume: 6 gal
Well Volume: _____ gal

Purge Method
Peristaltic _____
Gear Drive _____
Submersible _____

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

Instruments Used
YSI: X
Hydac: _____
Omega: _____

Other: _____

Time	Temp X C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
09.58	19.7	.37	5.76	1	brown	
09:59	20.5	.38	5.89	3	"	
10:00	20.6	.39	5.93	5	"	
10:00	20.6	.38	5.94	6	"	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020204554.061002

Page 5 of 7

Project Manager: E. Brennan

Well ID: MW-8

Well Diameter: 2

DTW Measurements:
Initial: 12.52
Recharge:

Calc Well Volume: 5 gal
Well Volume: gal

Purge Method
Peristaltic
Gear Drive
Submersible

Pump Depth ft.
Hand Bailed X
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:

Other:

Time	Temp X C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
10.12	20.4	.35	6.03	1	brown	
10:13	20.6	.49	5.87	2	dark brown	
10 13	20.9	.50	5.84	4	↓	
10 14	21.1	.50	5.86	5	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Page 6 of 7

Project Number: 020204554.061002

Project Manager: E. Brennan

Well ID: MW-2

Well Diameter: 2

DTW Measurements:
Initial: 11.44
Recharge:

Calc Well Volume: 6 gal
Well Volume: gal

Purge Method
Peristaltic
Gear Drive
Submersible X

Pump Depth ft.
Hand Bailed X
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:

Other:

Time	Temp X C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
10:26	20.7	.38	5.98	1	Brownish clear	
10 27	20.3	.38	6.00	2	↓	
10:28	20.2	.38	6.02	5		
10:28	20.1	.38	6.01	6	↓	

Project Name: Sears - Telegraph

Site Address: 2633 Telegraph Ave., Oakland

Project Number: 020204554.061002

Date: [redacted]

Page 7 of 7

Project Manager: E. Brennan

Well ID: MW-4

Well Diameter: 2

DTW Measurements:
Initial: 11.90
Recharge:

Calc Well Volume: 6 gal
Well Volume: gal

Purge Method
Peristaltic
Gear Drive
Submersible

Pump Depth ft.
Hand Bailed X
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:

Other:

Time	Temp X C F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
10:41	20.3	.48	5.91	1	Grey	
10:42	20.9	.49	5.92	3	↓	
10:42	21.1	.47	5.97	5	↓	
10:43	21.1	.45	6.00	6	↓	

ATTACHMENT 4

Laboratory Reports
and
Chain-of-Custody Record

7/18/94

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

4080 Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 Inside CA
(800) 423-7143 Outside CA
(510) 825-0720 FAX

Client Number: 020204554
Project ID: Sears 1058
2633 Telegraph
Oakland
Work Order Number: C4-07-0026

July 14, 1994

Eileen Brennan
Groundwater Technology, Inc.
275 S. Temple, Suite 321
Salt Lake City, UT 84111

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 07/01/94, under chain of custody record 31500.

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.

GTEL is certified by the California State Department of Health Services, Laboratory certification number E1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

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

Sincerely,
GTEL Environmental Laboratories, Inc.

Rashmi Shah
Laboratory Director

Client Number: 020204554
Project ID: Sears 1058
2633 Telegraph
Oakland
Work Order Number: C4-07-0026

ANALYTICAL RESULTS

Dissolved Metals in Water

GTEL Sample Number			02	04	05	06
Client Identification			MW-5	MW-6	MW-7	MW-8
Date Sampled			06/30/94	06/30/94	06/30/94	06/30/94
Date Prepared[e]			07/01/94	07/01/94	07/01/94	07/01/94
Date Analyzed (Method 6010)			07/07/94	07/07/94	07/07/94	07/07/94
Date Analyzed (Method 7421)			07/05/94	07/05/94	07/05/94	07/05/94
Analyte	EPA Method[a]	Detection Limit, ug/L	Concentration, ug/L			
Cadmium	EPA 6010[b]	5	<5	<5	<5	<5
Chromium, total	EPA 6010[b]	10	<10	<10	<10	<10
Lead	EPA 7421[c]	5	<5	<5	<5	<5
Nickel	EPA 6010[b]	20	<20	<20	<20	<20
Zinc	EPA 6010[b]	20	<20	<20	<20	<20
Detection Limit Multiplier			1	1	1	1

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.
b. Inductively Coupled Argon Plasma(ICP)
c. Graphite Furnace Atomic Absorption (GFAA)
d. Cold Vapor Atomic Absorption (CVAA)
e. Unpreserved water sample passed through a 0.45 micron filter and analyzed as a dissolved metal. Sample was lab filtered on 07/01/94.

Client Number: 020204554
Project ID: Sears 0558
2633 Telegraph
Oakland
Work Order Number: C4-07-0026

ANALYTICAL RESULTS

Dissolved Metals in Water

GTEL Sample Number			07	08	070194 MET	
Client Identification			MW-2	MW-4	METHOD BLANK	
Date Sampled			06/30/94	06/30/94	--	
Date Prepared[e]			07/01/94	07/01/94	07/01/94	
Date Analyzed (Method 6010)			07/07/94	07/07/94	07/07/94	
Date Analyzed (Method 7421)			07/05/94	07/05/94	07/05/94	
Analyte	EPA Method[a]	Detection Limit, ug/L	Concentration, ug/L			
Cadmium	EPA 6010[b]	5	<5	NR	<5	
Chromium, total	EPA 6010[b]	10	<10	NR	<10	
Lead	EPA 7421[c]	5	<5	<5	<5	
Nickel	EPA 6010[b]	20	<20	NR	<20	
Zinc	EPA 6010[b]	20	<20	NR	<20	
Detection Limit Multiplier			1	1	1	

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.
b. Inductively Coupled Argon Plasma(ICP)
c. Graphite Furnace Atomic Absorption (GFAA)
d. Cold Vapor Atomic Absorption (CVAA)
e. Unpreserved water sample passed through a 0.45 micron filter and analyzed as a dissolved metal. Sample was lab filtered on 07/01/94.
NR = Not Requested

Client Number: 020204554
Project ID: Sears (0956
2633 Telegraph
Oakland
Work Order Number: C4-07-0026

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015[a]

GTEL Sample Number		01	02	03	04
Client Identification		TB-LB	MW-5	MW-1	MW-6
Date Sampled		06/30/94	06/30/94	06/30/94	06/30/94
Date Analyzed		07/06/94	07/06/94	07/08/94	07/06/94
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	<0.3	0.6	<0.3
Toluene	0.3	<0.3	<0.3	0.7	<0.3
Ethylbenzene	0.3	<0.3	<0.3	2.4	<0.3
Xylene, total	0.5	<0.5	<0.5	15	<0.5
TPH as Gasoline	10	NR	<10	NR	<10
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		88.1	90.5	103	85.8

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%. NR = Not Requested.

Client Number: 020204554
Project ID: Sears 1058
2633 Telegraph
Oakland
Work Order Number: C4-07-0026

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015[a]

GTEL Sample Number		05	06	07	08
Client Identification		MW-7	MW-8	MW-2	MW-4
Date Sampled		06/30/94	06/30/94	06/30/94	06/30/94
Date Analyzed		07/07/94	07/07/94	07/07/94	07/07/94
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	0.9	<0.3	<0.3
Toluene	0.3	<0.3	<0.3	<0.3	1.7
Ethylbenzene	0.3	<0.3	<0.3	<0.3	0.5
Xylene, total	0.5	<0.5	1.1	<0.5	1.0
TPH as Gasoline	10	33	250	<10	450
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		85.6	84.4	85.9	87.1

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.

Client Number: 020204554
Project ID: Sears 1058
2633 Telegraph
Oakland
Work Order Number: C4-07-0026

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015[a]

GTEL Sample Number		09	M070794		
Client Identification		DMW-4	METHOD BLANK		
Date Sampled		06/30/94	--		
Date Analyzed		07/07/94	07/07/94		
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	<0.3		
Toluene	0.3	3.3	<0.3		
Ethylbenzene	0.3	<0.3	<0.3		
Xylene, total	0.5	<0.5	<0.5		
TPH as Gasoline	10	<10	<10		
Detection Limit Multiplier		1	1		
BFB surrogate, % recovery		88.7	91.4		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.

Client Number: 020204554
Project ID: Sears (058
2633 Telegraph
Oakland
Work Order Number: C4-07-0026

ANALYTICAL RESULTS

TPH as Motor Oil in Water

Method: GC-FID[a]

GTEL Sample Number		02[b]	03[b]	04	05[b]
Client Identification		MW-5	MW-1	MW-6	MW-7
Date Sampled		06/30/94	06/30/94	06/30/94	06/30/94
Date Analyzed		07/13/94	07/13/94	07/13/94	07/13/94
Analyte	Detection Limit, ug/L	Concentration, ug/L			
TPH as motor oil	100	<100	<100	<100	<100
Detection Limit Multiplier		1	1	1	1
OTP Surrogate, % recovery		119	119	115	102

GTEL Sample Number		06[b]	07[b]	08[c]	GCJ 070894
Client Identification		MW-8	MW-2	MW-4	METHOD BLANK
Date Sampled		06/30/94	06/30/94	06/30/94	--
Date Analyzed		07/13/94	07/13/94	07/13/94	07/08/94
Analyte	Detection Limit, ug/L	Concentration, ug/L			
TPH as motor oil	100	<100	100	130	<100
Detection Limit Multiplier		1	1	1	1
OTP Surrogate, % recovery		137	119	92.6	134

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, USEPA, November, 1986.

b. Hydrocarbon pattern not characteristic of motor oil.

c. Other hydrocarbons present in sample not included in motor oil concentration.

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

31500

Company Name: GTI

Phone #: 510 671-2387

FAX #:

Company Address: 4057 Port Chicago Hwy Concord

Site Location: 2633 Telegraph Oakland

Project Manager: E. Brennan

Client Project ID: (#) 020204554 061002

(NAME) Sears

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

Sampler Name (Print): Greg MASON

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl (BTEX + TPH G 8015)	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (Specify)	Sampling: DATE	TIME
TB LB	01		X						X			X	X		6/30	
MW-5	02	10														11:30
1	03	4														11:50
6	04	10														12:10
7	05	10														12:30
8	06	10														12:50
2	07	10														13:10
4	08	8														13:30
DMW-4	09	2														12:40

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	Cr, Cd, Ni, Zn	TPH Motor oil 8020					
																			Dissolved lead								
	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																											

REMARKS: Samples for Metals UN preserved Please filter (4°)

TAT	Special Handling	SPECIAL DETECTION LIMITS	Lab Use Only Lot #:	Storage Location
Priority (24 hr) ☐	GTEL Contact			C 2/1
Expedited (48 hr) ☐	Quote/Contract #			F 2
7 Business Days ☐	Confirmation #	SPECIAL REPORTING REQUIREMENTS	Work Order #: C4070026	
Other ☐	P.O. #			
Business Days ☐		FAX ☐		

QA/QC Level: Blue ☐ CLP ☐ Other ☐

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	6/30	4:00	Received by:
Relinquished by:	6-30	4:00	Received by:
Relinquished by:	7/1/94	1520	Received by Laboratory:
	7/1/94	15:40	Waybill #