

ALCO  
HAZMAT



**Chevron**

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March 28, 1994

**Chevron U.S.A. Products Company**  
2410 Camino Ramon  
San Ramon, CA 94583  
P.O. Box 5004  
San Ramon, CA 94583-0804

**Marketing Department**  
Phone 510 842 9500

Ms. Jennifer Eberle  
Alameda County Health Care Services  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621

**Re: Chevron Service Station #9-4587**  
**609 Oak Street, Oakland, CA**

*510# 373*

Dear Ms. Eberle:

Enclosed is the Groundwater Monitoring and Sampling Activities report dated January 28, 1994, prepared by our consultant Groundwater Technology, Inc. for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX.

**It should be noted that the analyses for the rinseate blank sample detected hydrocarbons.** This may indicate that the low concentrations of BTEX constituents detected in monitor wells C-3 through C-7 are the result of improper decontamination procedures. Concentrations of hydrocarbons in these wells have historically been below method detection limits.

Exclusive of monitor wells C-3 through C-7, concentrations of dissolved hydrocarbon constituents in the ground water samples collected were consistent with previous observations at the site. Separate-phase hydrocarbons were detected in monitor well CR-1 and tank pit backfill wells C-B and C-C at measured thicknesses of 0.02, 0.20, and 0.07 feet, respectively. Depth to ground water was measured at approximately 8.3 to 9.8 feet below grade and the direction of flow is to the southeast.

The ground water extraction system at this site was started on November 8, 1994, and ran until November 17, 1994, when carbon breakthrough was observed between the first and second vessels. We expect to have the carbon profiled for regeneration and new carbon at the site within the next two weeks.

We are currently working with the dealer to schedule a vacuum truck to remove highly contaminated ground water and separate phase hydrocarbons from the permeable backfill material. This involves vacuuming ground water through one of the tank pit backfill wells and disposing of the water at an approved off-site facility.

*when?*  
*plans?*

Removal of the underground storage tanks and product lines is scheduled for May 16, 1994. At that time, we anticipate performing overexcavation activities to remove impacted soils from the site.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

Page 2  
March 28, 1994  
Chevron SS#9-4587

Sincerely,  
CHEVRON U.S.A. PRODUCTS COMPANY



Mark A. Miller  
Site Assessment and Remediation Engineer

Enclosure

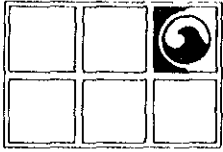
cc: Mr. Rich Hiatt, RWQCB - Bay Area  
Mr. Kent O'Brien, Geraghty & Miller - Richmond  
Ms. B.C. Owen

Mr. Dewey Bargiacchi  
The Paris Company  
8520 Pardee  
Oakland, CA 94621

Mr. James Kimberlin  
1100 Howe Avenue #415  
Sacramento, CA 94825

Mr. William Kimberlin  
51 Eureka Street  
Kensington, CA 94707

File: 9-4587 QM4



# GROUNDWATER TECHNOLOGY, INC.

4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387

FAX: (415) 685-9148

January 28, 1994

Project No. 020104111

Mr. Mark Miller  
Chevron U.S.A. Products Company  
2410 Camino Ramon  
San Ramon, CA 94583-0804

**SUBJECT:** *Groundwater Monitoring and Sampling Activities*  
Chevron Service Station No. 9-4587  
609 Oak Street, Oakland, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on December 23, 1993. Ten of the 11 groundwater monitoring wells at this site were gauged to measure depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. Monitoring well C-A could not be located. Separate-phase hydrocarbons were detected in monitoring wells CR-1, C-B, and C-C at thicknesses of 0.02 foot, 0.20 foot, and 0.07 foot, respectively. A potentiometric surface map (Figure 1) and a summary of groundwater monitoring data (Table 1) are presented in Attachments 1 and 2, respectively. After the DTW was measured, each monitoring well, except monitoring wells CR-1, C-A, C-B, and C-C, was purged and sampled. Field data sheets are presented in Attachment 3. The groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylenes, and for total petroleum hydrocarbons-as-gasoline. Results of the chemical analyses are summarized in Table 1. The laboratory report and chain-of-custody record are included in Attachment 4. The results of a monthly product bailing program for monitoring wells CR-1, C-1, C-C, and C-B are presented in Table 2. Monitoring-well purge water was transported by Groundwater Technology to the Chevron Terminal in Richmond, California, for recycling.

Groundwater Technology is pleased to assist Chevron on this project. If you have any questions or comments, please contact our Concord office at (510) 671-2387.

Sincerely,  
**Groundwater Technology, Inc.**  
Written/Submitted by

Tim Watchers  
Project Manager

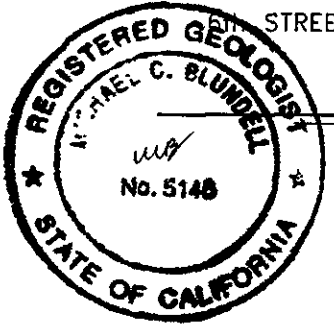
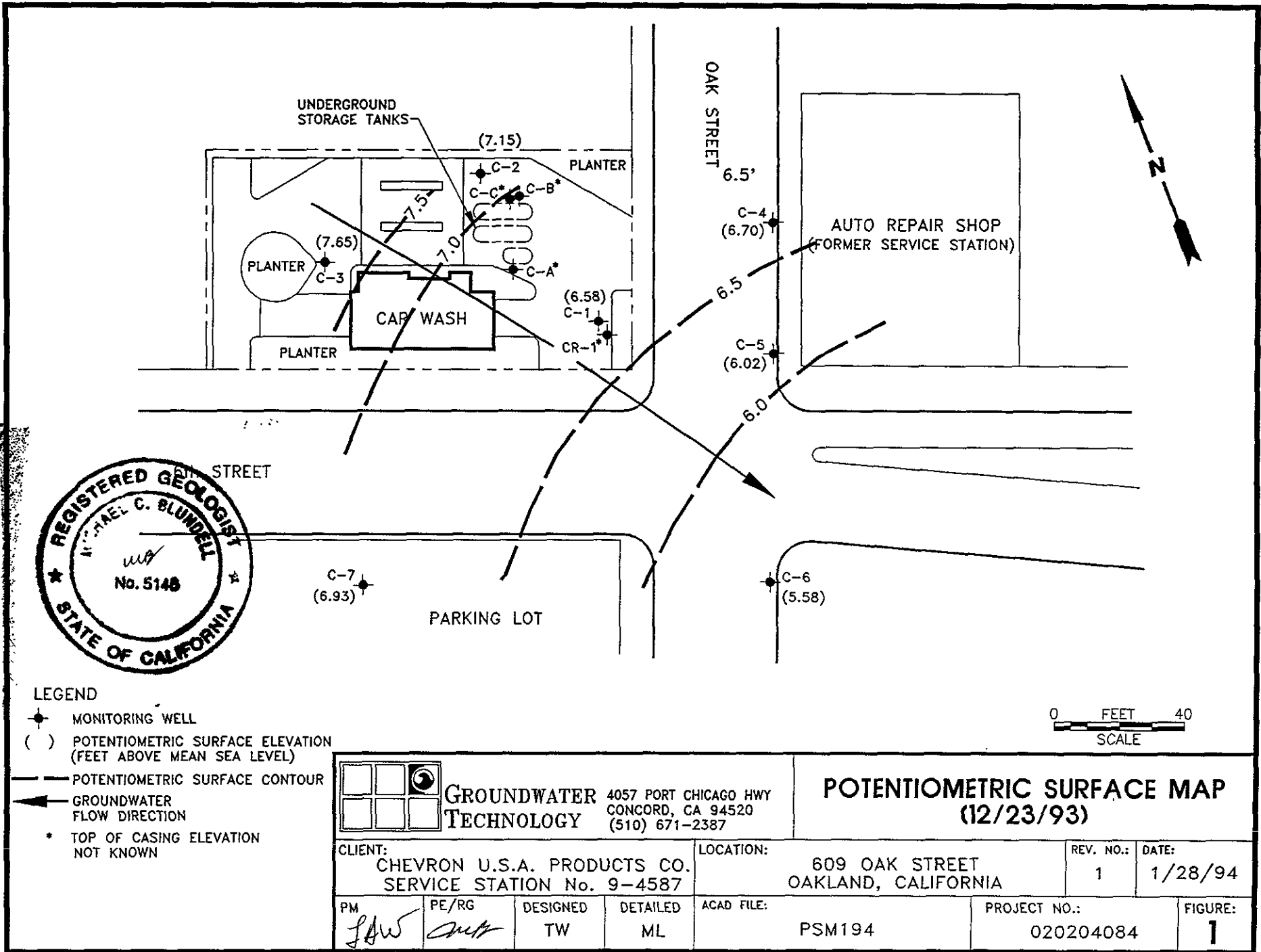
Attachment 1 Figures  
Attachment 2 Tables  
Attachment 3 Field Data Sheets  
Attachment 4 Laboratory Report

For:  
Wendell W. Lattz  
Vice President, General Manager  
West Region

PR mae

**ATTACHMENT 1**

**Figure**



UNDERGROUND STORAGE TANKS

(7.15)

PLANTER

PLANTER

(7.65)

C-3

CAP WASH

PLANTER

(6.58)

C-1

CR-1\*

OAK STREET

6.5'

C-4  
(6.70)

AUTO REPAIR SHOP  
(FORMER SERVICE STATION)

6.5

C-5  
(6.02)

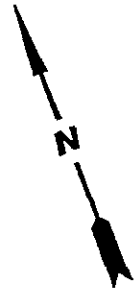
6.0

STREET

C-7  
(6.93)

PARKING LOT

C-6  
(5.58)



**ATTACHMENT 2**

**Table**

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-4587**  
**609 Oak Street, Oakland, California**

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-A*	12/06/89	44,000	20,000	66	1,600	2,220	—	0.00	—
	10/30/90	31,000	23,000	110	1,100	160	11.20	Sheen	—
	10/30/90	30,000	23,000	150	1,000	180	11.20	Sheen	—
	01/14/91	12,000	30,000	540	1,400	560	11.25	0.00	—
	04/03/91	59,000	33,000	2,400	2,200	3,100	9.82	0.00	—
	07/17/91	52,000	38,000	380	1,300	500	10.93	0.00	—
	10/07/91	—	—	—	—	—	—	—	—
	06/25/92	—	—	—	—	—	—	—	—
	09/17/92	—	—	—	—	—	—	—	—
	12/16/92	—	—	—	—	—	—	—	—
	03/18/93	—	—	—	—	—	—	—	—
	06/11/93	—	—	—	—	—	—	—	—
	09/08/93	—	—	—	—	—	—	—	—
	09/17/93	—	—	—	—	—	10.02	0.00	—
	12/23/93	—	—	—	—	—	—	—	—
	C-B*	12/06/89	—	—	—	—	—	—	0.01
10/30/90		—	—	—	—	—	11.19	0.01	—
01/14/91		—	—	—	—	—	11.40	0.01	—
04/03/91		—	—	—	—	—	9.55	1.00	—
04/04/91		—	—	—	—	—	10.54	1.06	—
07/17/91		—	—	—	—	—	10.84	0.03	—
10/07/91		—	—	—	—	—	11.10	0.04	—
02/04/92		—	—	—	—	—	10.76	0.01	—
03/06/92		—	—	—	—	—	—	—	—
04/01/92		—	—	—	—	—	10.33	1.02	—
06/25/92		—	—	—	—	—	11.20	0.68	—
09/17/92		—	—	—	—	—	11.07	0.13	—
12/16/92		—	—	—	—	—	10.41	0.38	—
03/18/93		—	—	—	—	—	9.19	0.05	—
06/11/93		—	—	—	—	—	9.54	0.70	—
09/08/93		—	—	—	—	—	—	—	—
09/17/93	—	—	—	—	—	9.85	0.52	—	
12/23/93	—	—	—	—	—	9.37	0.20	—	

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-4587**  
**609 Oak Street, Oakland, California**

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-C*	12/06/89	---	---	---	---	---	---	0.15	---
	10/30/90	---	---	---	---	---	10.84	0.03	---
	01/14/91	---	---	---	---	---	11.01	0.11	---
	04/03/91	---	---	---	---	---	9.19	0.02	---
	07/17/91	---	---	---	---	---	10.53	0.03	---
	10/07/91	---	---	---	---	---	10.98	0.08	---
	02/04/92	---	---	---	---	---	10.45	0.09	---
	03/06/92	---	---	---	---	---	8.83	0.09	---
	04/01/92	---	---	---	---	---	9.23	0.16	---
	06/25/92	---	---	---	---	---	10.40	0.12	---
	09/17/92	---	---	---	---	---	10.84	0.12	---
	12/16/92	---	---	---	---	---	10.02	0.12	---
	03/18/93	---	---	---	---	---	8.70	0.15	---
	06/11/93	---	---	---	---	---	9.25	0.13	---
	09/08/93	---	---	---	---	---	---	---	---
09/17/93	---	---	---	---	---	9.83	Sheen	---	
12/23/93	---	---	---	---	---	9.66	0.07	---	
C-1 16.07	12/06/89	---	---	---	---	---	---	0.20	---
	10/30/90	---	---	---	---	---	10.79	0.02	5.30
	01/14/91	---	---	---	---	---	11.39	0.02	4.70
	04/03/91	---	---	---	---	---	9.43	0.02	6.66
	07/17/91	---	---	---	---	---	10.46	0.04	5.64
	10/07/91	---	---	---	---	---	10.74	0.04	5.36
	02/04/92	---	---	---	---	---	10.37	0.01	5.71
	03/06/92	---	---	---	---	---	9.20	0.00	6.87
	04/01/92	---	---	---	---	---	9.28	0.00	6.79
	06/25/92	100,000	8,800	7,000	2,800	19,000	9.98	0.01	6.10
	09/17/92	---	---	---	---	---	10.51	Sheen	5.56
	12/16/92	---	---	---	---	---	9.81	Sheen	6.26
	03/18/93	---	---	---	---	---	8.88	Sheen	7.19
	05/11/93	---	---	---	---	---	9.31	0.02	6.78
	09/08/93	---	---	---	---	---	---	---	---
09/17/93	---	---	---	---	---	9.72	0.02	6.37	
12/23/93	41,000	5,400	590	710	5,600	9.49	0.00	6.58	



**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-4587**  
**609 Oak Street, Oakland, California**

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-2 16.84	12/06/89	16,000	250	1,200	550	1,400	—	0.00	—
	10/30/90	28,000	3,700	1,900	1,200	4,300	11.16	0.00	5.68
	01/14/91	24,000	3,300	1,200	1,100	4,100	11.11	0.00	5.73
	01/14/91	30,000	3,900	1,500	1,500	5,000	11.11	0.00	5.73
	04/03/91	12,000	1,100	840	650	1,800	9.53	0.00	7.31
	04/03/91	14,000	1,100	990	680	1,800	9.53	0.00	7.31
	07/17/91	13,000	1,700	560	650	1,700	10.68	0.00	6.16
	07/17/91	14,000	1,700	640	720	1,900	10.68	0.00	6.16
	10/07/91	25,000	3,700	1,300	1,400	3,800	11.02	0.00	5.82
	02/04/92	16,000	2,600	300	860	1,900	10.60	0.00	6.24
	04/01/92	15,000	1,900	300	700	1,500	9.30	0.00	7.54
	06/25/92	23,000	3,400	740	1,300	3,400	10.45	0.00	6.39
	09/17/92	18,000	3,500	550	1,400	3,900	10.78	0.00	6.06
	12/16/92	12,000	1,200	120	460	1,100	9.94	0.00	6.90
	03/18/93	5,200	990	130	290	430	8.80	0.00	8.04
	06/11/93	34,000	8,200	910	2,400	6,600	9.43	0.00	7.41
09/08/93	3,400	690	26	190	330	—	—	—	
09/17/93	—	—	—	—	—	9.91	0.00	6.93	
12/23/93	2,500	830	26	130	260	9.69	0.00	7.15	
C-3 16.48	12/06/89	<500	<0.5	<0.5	<0.5	0.74	—	0.00	—
	10/30/90	410	4	4	2	9	10.44	0.00	6.04
	01/14/91	80	<0.5	<0.5	<0.5	1	10.34	0.00	6.14
	04/03/91	53	<0.5	<0.5	<0.5	2	9.01	0.00	7.47
	07/17/91	<50	5.9	<0.5	<0.5	<0.5	10.00	0.00	6.48
	10/07/91	<50	<0.5	<0.5	<0.5	<0.5	10.38	0.00	6.10
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	10.00	0.00	6.48
	04/01/92	<50	<0.5	<0.5	<0.5	<0.5	8.83	0.00	7.65
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	9.85	0.00	6.63
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	10.20	0.00	6.28
	12/16/92	<50	<0.5	<0.5	<0.5	<0.5	9.40	0.00	7.08
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	8.12	0.00	8.36
	06/11/93	<50	<0.5	<0.5	<0.5	<0.5	8.59	0.00	7.89
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—
	09/17/93	—	—	—	—	—	9.00	0.00	7.48
	12/23/93	<50	<0.5	0.8	<0.5	2.9	8.83	0.00	7.65

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-4587**  
**609 Oak Street, Oakland, California**

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-4 16.53	12/06/89	—	—	—	—	—	—	0.00	—
	10/30/90	<50	<0.5	<0.5	<0.5	<0.5	11.56	0.00	4.97
	01/14/91	<50	<0.5	<0.5	<0.5	<0.5	11.44	0.00	5.09
	04/03/91	150	3	<0.5	12	9	10.00	0.00	6.53
	07/17/91	290	2.3	0.4	52	0.4	11.16	0.00	5.37
	10/07/91	<50	<0.5	<0.5	4.6	<0.5	11.39	0.00	5.14
	02/04/92	<50	<0.5	<0.5	2.8	<0.5	11.02	0.00	5.51
	02/04/92	<50	<0.5	<0.5	2.5	0.5	11.02	0.00	5.51
	04/01/92	480	4.9	<0.5	64	4.3	9.83	0.00	6.70
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	10.88	0.00	5.65
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	11.24	0.00	5.29
	12/16/92	56	<0.5	<0.5	1.0	<0.5	10.40	0.00	6.13
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	9.48	0.00	7.05
	06/11/93	<50	<0.5	<0.5	<0.5	<1.5	9.61	0.00	6.92
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—
	09/17/93	—	—	—	—	—	10.07	0.00	6.46
12/23/93	<50	1.2	1.5	<0.5	3.2	9.83	0.00	6.70	
C-5 14.70	12/06/89	—	—	—	—	—	9.97	0.00	4.73
	10/30/90	<50	0.6	<0.5	<0.5	0.5	—	0.00	—
	01/14/91	54	<0.5	<0.5	<0.5	<0.5	9.87	0.00	4.83
	04/03/91	1,800	330	200	52	170	8.72	0.00	5.98
	07/17/91	170	120	5.3	12	20	9.63	0.00	5.07
	10/07/91	<50	1.1	<0.5	<0.5	<0.5	9.83	0.00	4.87
	02/04/92	91	16	<0.5	2.4	2.0	9.53	0.00	5.17
	04/01/92	960	200	5.4	21	33	8.57	0.00	6.13
	06/25/92	800	2.5	<0.5	1.3	7.3	9.44	0.00	5.26
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	9.72	0.00	4.98
	12/16/92	81	5.4	1.2	1.5	4.3	9.07	0.00	5.63
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	8.44	0.00	6.26
	06/11/93	<50	1.6	<0.5	<0.5	<1.5	8.53	0.00	6.17
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—
	09/17/93	—	—	—	—	—	8.89	0.00	5.81
	12/23/93	<50	5.5	1.3	0.7	4.0	6.68	0.00	6.02

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-4587**  
**609 Oak Street, Oakland, California**

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-6 13.87	12/06/89	---	---	---	---	---	---	0.00	---
	10/30/90	<50	<0.5	<0.5	<0.5	<0.5	9.43	0.00	4.44
	01/14/91	<0.5	<0.5	<0.5	<0.5	<0.5	9.41	0.00	4.46
	04/03/91	<0.5	<0.5	<0.5	<0.5	<0.5	8.66	0.00	5.21
	07/17/91	<0.5	<0.5	<0.5	<0.5	<0.5	9.25	0.00	4.62
	10/07/91	67	<0.5	0.6	<0.5	0.6	9.34	0.00	4.53
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	9.16	0.00	4.71
	04/01/92	<50	<0.5	<0.5	<0.5	<0.5	8.59	0.00	5.28
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	9.11	0.00	4.76
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	9.28	0.00	4.59
	12/16/92	120	9.3	1.9	2.7	7.4	8.88	0.00	4.99
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	8.35	0.00	5.52
	06/11/93	<50	<0.5	0.7	<0.5	<1.5	8.21	0.00	5.66
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	---	---	---
	09/17/93	---	---	---	---	---	8.37	0.00	5.50
12/23/93	<50	1.4	1.0	<0.5	3.5	8.29	0.00	5.58	
C-7 15.78	02/07/91	<50	<0.5	0.8	<0.5	<0.5	9.88	0.00	5.90
	04/03/91	<50	<0.5	<0.5	<0.5	<0.5	9.04	0.00	6.74
	07/17/91	<50	<0.5	<0.5	<0.5	<0.5	9.86	0.00	5.92
	10/07/91	<50	<0.5	<0.5	<0.5	<0.5	10.10	0.00	5.68
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	9.74	0.00	6.04
	04/01/92	<50	<0.5	<0.5	<0.5	<0.5	8.96	0.00	6.82
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	9.62	0.00	6.16
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	9.75	0.00	6.03
	12/16/92	---	---	---	---	---	9.41	0.00	6.37
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	8.45	0.00	7.33
	06/11/93	<50	<0.5	<0.5	<0.5	<1.5	8.71	0.00	7.07
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	---	---	---
	09/17/93	---	---	---	---	---	9.05	0.00	6.73
	12/23/93	<50	1.9	1.4	<0.5	3.6	8.85	0.00	6.93
	CR-1*	10/30/90	9,600	7,100	65	610	190	10.51	0.00
01/14/91		1,500	3,200	52	190	77	10.29	0.00	---
07/17/91		15,000	9,300	220	680	530	10.19	0.00	---
10/07/91		17,000	7,600	50	440	68	10.46	0.00	---
10/07/91		14,000	9,400	52	430	110	10.46	0.00	---
02/04/92		19,000	6,100	32	350	100	10.12	0.00	---
04/01/92		29,000	5,300	820	380	1,200	9.24	0.00	---
06/25/92		12,000	3,300	280	210	460	10.03	0.00	---
09/17/92		---	---	---	---	---	10.30	0.00	---
12/16/92		---	---	---	---	---	9.59	Sheen	---
03/18/93		---	---	---	---	---	8.82	0.05	---
06/11/93		---	---	---	---	---	9.58	0.87	---
09/08/93		---	---	---	---	---	---	---	---
09/17/93	---	---	---	---	---	---	---	---	
12/23/93	---	---	---	---	---	9.02	0.02	---	

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**Chevron Service Station No. 9-4587**  
**609 Oak Street, Oakland, California**

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
Trip Blank	10/30/90	—	—	—	—	—	—	—	—
	01/14/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	02/07/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	04/03/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	07/17/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	10/07/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	04/01/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	12/16/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—
	06/11/93	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—
	09/17/93	—	—	—	—	—	—	—	—
12/23/93	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	
Rinsate	10/30/90	<50	<0.5	0.6	<0.5	<0.5	—	—	—
	10/07/91	<50	<0.5	0.5	<0.5	<0.5	—	—	—
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	04/01/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	12/16/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	06/11/93	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	12/23/93	<50	0.8	1.0	<0.5	0.6	—	—	—

TPH-G = Total petroleum hydrocarbons-as-gasoline  
SPT = Separate-phase hydrocarbon thickness  
— = Not applicable, not sampled, not measured  
DTW = Depth to water  
WTE = Water table elevation

Concentrations in parts per billion  
Data from December 6, 1989, to December 16, 1992, are from Alton GeoSciences report dated January 26, 1993.

**TABLE 2**  
**PRODUCT RECOVERY PROGRAM**  
Chevron Service Station No. 9-4587  
609 Oak Street, Oakland, California

<b>Date</b>	<b>Well ID</b>	<b>Amount Product Bailed (gallons)</b>	<b>Total Product Bailed (gallons)</b>
10/01/93	CR1*	0	0
10/01/93	C-1	0.01	0.01
10/01/93	C-C	0.01	0.01
10/01/93	C-B	0.03	0.03

\* Pumping well, unable to bail product.

**ATTACHMENT 3**

**Field Data Sheets**



Project Name: Chévron - Oak

Date: 12 23-93

Site Address: 609 Oak St., Oakland

Page 1 of 1

Project Number: 020204084.0610

Project Manager: Tim Watchers

Well ID: C-2

DTW Measurements: ✓

Well Diameter: 3.0"

Initial: 9.69 Calc Well Volume: 10.53 gal

Recharge: \_\_\_\_\_ Well Volume: 3.51 gal

DTB = 19.25 9.56 x .367

Purge Method Peristaltic Pump Depth 18.00 ft.  
 Hand Bailed \_\_\_\_\_  
 Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
 Submersible X Other \_\_\_\_\_

Instruments Used  
 YSI: 3500 Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

6PM = 1.0

Time	Temp	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
	✓ C F					
1155	14.8	.452	6.15	4.0	N/A	Almost LIGHT TAN, clear
1159	14.9	.457	6.11	8.0	N/A	Clearer than 1st vol.
1202	15.1	.460	6.08	11.00	N/A	Partially clear
						SAMPLED @ 1212



Project Name: Chevron - Oak.

Date: 17-23-93

Site Address: 609 Oak St., Oakland

Page 1 of 1

Project Number: 020204084.0610

Project Manager: Tim Watchers

Well ID: C-3

DTW Measurements: ✓

Well Diameter: 3.0"

Initial: 8.83 Calc Well Volume: 12.12 gal

Recharge: 11.01 / Well Volume: 4.04 gal

DTB: 19.84 11.01 x .367

Purge Method Peristaltic Pump Depth 18.0 ft.  
 Hand Bailed \_\_\_\_\_  
 Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
 Submersible  Other \_\_\_\_\_

Instruments Used  
 YSI: 3500 Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

@ 2.1 GPM well dried out

Time	Temp C F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
840	15.3	424	6.14 <del>6.11</del>	4.0	N/A	Dark Grey/wooder
843	15.4	438	6.12	7.0 <del>8.0</del>	N/A	Well Dry
				12.5	N/A	
						Sampled @ 1400

Project Name: Chevron - Oak

Date: 17-23-93

Site Address: 609 Oak St., Oakland

Page 1 of 1

Project Number: 020204084.0610

Project Manager: Tim Watchers

Well ID: C-4

DTW Measurements:

Well Diameter: 2.0"

Initial: 9.83

Calc Well Volume: 9.54 gal

Recharge: \_\_\_\_\_

Well Volume: 3.18 gal

Purge Method \_\_\_\_\_ Pump Depth 28.0 ft.  
 Peristaltic \_\_\_\_\_ Hand Bailed \_\_\_\_\_  
 Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
 Submersible  Other \_\_\_\_\_

Instruments Used  
 YSI: 3500 Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

DTB =  $29.35 \times 19.52 \times .163$

6PM = 1.0

Time	Temp <input checked="" type="checkbox"/> C _____ F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
940	13.5	.445	6.38	3.5	N/A	Light Brown/merky
944	13.1	.437	6.31	7.0	N/A	Light Brown/merky
947	13.0	.429	6.33	10.0	N/A	Light Brown/merky
						Sampled @ 950

Project Name: Chevron - Oak

Date: 1-23-93

Site Address: 609 Oak St., Oakland

Page 1 of 1

Project Number: 020204084.0610

Project Manager: Tim Watchers

Well ID: C-5

DTW Measurements: ✓

Well Diameter: 2.0"

Initial: 8.68 Calc Well Volume: 10.05 gal

Recharge: \_\_\_\_\_ Well Volume: 3.35 gal

OTB 29.22 20.54 x .163

Purge Method \_\_\_\_\_ Pump Depth 28.50 ft.  
 Peristaltic \_\_\_\_\_ Hand Bailed \_\_\_\_\_  
 Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
 Submersible  Other \_\_\_\_\_

Instruments Used  
 YSI: 3500 Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

GPM = 1.0

Time	Temp	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
	<input checked="" type="checkbox"/> C _____ F					
1009	12.5	412	6.50	4.0	N/A	Light Brown
1012	12.5	413	6.51	7.0	N/A	Light Brown
1016	12.5	410	6.50	10.5	N/A	Light Brown
						Sampled @ 1019

Project Name: Chevron - Oak

Date: 17-23-93

Site Address: 609 Oak St., Oakland

Page 1 of 1

Project Number: 020204084.0610

Project Manager: Tim Watchers

Well ID: C-6

DTW Measurements: /

Well Diameter: 2.0"

Initial: 8.29 Calc Well Volume: 10.14 gal

Recharge: \_\_\_\_\_ Well Volume: 3.38 gal

DTB = 29.02 20.73 x 1.63

Purge Method Peristaltic Pump Depth 27.50 ft.  
 Peristaltic \_\_\_\_\_ Hand Bailed \_\_\_\_\_  
 Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
 Submersible X Other \_\_\_\_\_

Instruments Used  
 YSI: 3500 Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

GPM = 1.0

Time	Temp	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
	<input checked="" type="checkbox"/> C _____ F					
1047	12.8	.417	6.29	4.0	N/A	Light Brown/merky
1050	12.8	.418	6.27	7.0	N/A	Light Brown/merky
1054	12.9	.420	6.22	11.0	N/A	Light Brown/merky
						Sampled @ 1057

Project Name: Chevron - Oak.

Date: 12-3-93

Site Address: 609 Oak St., Oakland

Page 1 of 1

Project Number: 020204084.0610

Project Manager: Tim Watchers

JASON D STEVAP

Well ID: C-7

DTW Measurements: /

Well Diameter: 2.0"

Initial: 8.85 Calc Well Volume: 9.73 gal

Recharge: 19.9 x .163 Well Volume: 3.24 gal

DTR = 28.75

Purge Method Peristaltic Pump Depth 26.5 ft.  
Hand Bailed \_\_\_\_\_  
Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
Submersible  Other \_\_\_\_\_

Instruments Used  
YSI: 3500 Other: \_\_\_\_\_  
Hydac: \_\_\_\_\_  
Omega: \_\_\_\_\_

GPM = 1.0

Time	Temp ✓ C F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
904	12.9	.404	6.24	3	N/A	LIGHT BROWN
907	12.8	.459	6.29	6	N/A	LIGHT BROWN / clearing up.
911	13.8	.902	6.28	10	N/A	Fairly clear
						Sampled @ 914











**ATTACHMENT 4**  
**Laboratory Report**



# Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

GROUNDWATER TECHNOLOGY, INC.  
Attn: TIM WATCHERS

Project 020204111.0610  
Reported 01/04/94

## TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
30159- 1	TB-LB	12/23/93	12/27/93 Water
30159- 2	C-3	12/23/93	12/27/93 Water
30159- 3	RBC-3	12/23/93	12/27/93 Water
30159- 4	C-7	12/23/93	12/27/93 Water
30159- 5	C-4	12/23/93	12/27/93 Water
30159- 6	C-5	12/23/93	12/27/93 Water
30159- 7	C-6	12/23/93	12/27/93 Water
30159- 8	C-2	12/23/93	12/28/93 Water
30159- 9	C-1	12/23/93	12/28/93 Water

## RESULTS OF ANALYSIS

Laboratory Number: 30159- 1 30159- 2 30159- 3 30159- 4 30159- 5

Gasoline:	ND<50	ND<50	ND<50	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5	0.8	1.9	1.2
Toluene:	ND<0.5	0.8	1.0	1.4	1.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Total Xylenes:	ND<0.5	2.9	0.6	3.6	3.2

Concentration: ug/L ug/L ug/L ug/L ug/L

Laboratory Number: 30159- 6 30159- 7 30159- 8 30159- 9

Gasoline:	ND<50	ND<50	2500	41000
Benzene:	5.5	1.4	830	5400
Toluene:	1.3	1.0	26	590
Ethyl Benzene:	0.7	ND<0.5	130	710
Total Xylenes:	4.0	3.5	260	5600

Concentration: ug/L ug/L ug/L ug/L



# Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

## C E R T I F I C A T E O F A N A L Y S I S

### ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS


Page 2 of 2  
QA/QC INFORMATION  
SET: 30159

NA = ANALYSIS NOT REQUESTED  
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT  
ug/L = parts per billion (ppb)

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:  
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE  
Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	101/100	1%	70-130
Benzene:	83/92	10%	70-130
Toluene:	90/101	12%	70-130
Ethyl Benzene:	95/106	11%	70-130
Total Xylenes:	99/111	11%	70-130

  
Senior Chemist

Fax copy of Lab Report and COC to Chevron Contact:  Yes  No

30159

Chain-of-Custody-Record

Chevron U.S.A. Inc.  
P.O. BOX 5004  
San Ramon, CA 94583  
FAX (415)842-9591

Chevron Facility Number 9-4587  
Facility Address 609 Oak St.  
Consultant Project Number 020204111.0610  
Consultant Name Groundwater Technology, Inc.  
Address 4057 Port Chicago Hwy, Concord, CA. 94520  
Project Contact (Name) Tim Watchers  
(Phone) 510-671-2387 (Fax Number) \_\_\_\_\_

Chevron Contact (Name) \_\_\_\_\_  
(Phone) \_\_\_\_\_  
Laboratory Name \_\_\_\_\_  
Laboratory Release Number 8327510  
Samples Collected by (Name) \_\_\_\_\_  
Collection Date \_\_\_\_\_  
Signature \_\_\_\_\_

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analysis To Be Performed										NOTE: Do NOT BILL TB-LB SAMPLES					
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)						Remarks		
TBLB	1	1	W	G	91	HCL		X															
C-3	2	3			1409																		
RBC3	3	1																					
C-7	4	3			914																		
RBC7	10	1																					
C-4	5	3			950																		
RBC4	11	1																					
C-5	6	3			1019																		
RBC5	12	1																					
C-6	7	3			1057																		
RBC6	13	1																					
<del>RBC1</del>	<del>1</del>	<del>1</del>	<del>W</del>	<del>G</del>	<del>1212</del>	<del>HCL</del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>
C-2	8	3			1212																		

DRYOUT  
FOR RBC3  
Hold till later  
(RBC) samples

Please Initial:  
Samples Stored in ice  
Appropriate containers  
Samples reserved  
Vials with caps  
Comments: \_\_\_\_\_

APV  
SUC  
V

Relinquished By (Signature) <i>[Signature]</i>	Organization GTL	Date/Time 12-23 1550	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <i>[Signature]</i>	Organization	Date/Time 12/23/02 11:57	

Fax copy of Lab Report and COC to Chevron Contact:  Yes  No

Chain-of-Custody-Record

Chevron U.S.A. Inc.  
P.O. BOX 5004  
San Ramon, CA 94583  
FAX (415)842-9591

Chevron Facility Number 9-4587  
Facility Address 609 Oak St.  
Consultant Project Number 020204081 0610  
Consultant Name Groundwater Technology, Inc.  
Address 4057 Port Chicago Hwy, Concord, CA 94520  
Project Contact (Name) Tim Watchers  
(Phone) 510-671-2387 (Fax Number)

Chevron Contact (Name) \_\_\_\_\_  
(Phone) \_\_\_\_\_  
Laboratory Name \_\_\_\_\_  
Laboratory Release Number \_\_\_\_\_  
Samples Collected by (Name) \_\_\_\_\_  
Collection Date \_\_\_\_\_  
Signature \_\_\_\_\_

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed										Remarks		
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)					
RBC-2	14	1	W	G		HCL		X												
<del>E-A</del>																				
<del>RBCA</del>		1																		
C-1	9	3			1356			X												
RBC-1	15	1						X												
<del>E-B</del>		3																		
<del>RBCB</del>		1																		
<del>CC</del>		3																		
<del>RBC-C</del>		1																		

NOTE:  
Do NOT BILL  
TB-LB SAMPLES

Relinquished By (Signature) <i>Josiah Stines</i>	Organization GTL	Date/Time 12-23 15:50	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <i>Patt</i>	Organization	Date/Time 12/23/03 11:00	