ALCO
HAZMAT

93 DEC -9 PM 4:00

Chevron

December 5, 1993

Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583

Marketing Department
Phone 510 842 9500

Site Assessment & Remediation

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

Re: Chevron Service Station #9-0338
5500 Telegraph Avenue, Oakland, CA

Dear Ms. Hugo:

Enclosed is the quarterly Groundwater Monitoring and Sampling Activities report dated October 22, 1993, 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 (TPH-G) and BTEX. Additionally, a sample collected from monitor well C-3 was analyzed for EPA Method 8010 constituents.

Laboratory analyses reported these constituents below the method detection limits for all monitor wells with the exception of TPH-G in C-1 at a concentration of 79 ppb, and dichloromethane in C-3 at a concentration of 1 ppb. The dichloromethane concentration is below the maximum contaminant level (MCL) of 5 ppb. Depth to ground water was measured at approximately 10.0 to 10.8 feet below grade and the direction of flow is to the southwest.

Chevron will continue to monitor and sample all wells at this site for one additional quarter. We will then evaluate the site for case closure.

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

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Eddy So, RWQCB - Bay Area
Mr. M.R. Purcell
File (9-0338 QM3)

GROUNDWATER TECHNOLOGY, INC.
1401 Halyard Drive, Suite 140, West Sacramento, CA 95691, (916) 372-4700
FAX (916) 372-8781

October 22, 1993

Project No. 020204085

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

SUBJECT: *Groundwater Monitoring and Sampling Activities*
Former Chevron Service Station No. 9-0338
5500 Telegraph Avenue, Oakland, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on September 22, 1993. The three groundwater monitoring wells at this site were gauged to measure depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not detected in the monitoring wells. 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 was purged and sampled. The groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and for total petroleum hydrocarbons-as-gasoline (TPH-G). An additional sample was collected from monitoring well C-3 to be analyzed for volatile organics. Analytical results of volatile organics for samples collected from monitoring well C-3 reported 1 part per billion of dichloromethane. Results of the chemical analyses are summarized in Table 1. The laboratory reports and chain-of-custody record are included in Attachment 3. 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 Geologist

PR

Attachment 1 Figure
Attachment 2 Table
Attachment 3 Laboratory Report

Groundwater Technology, Inc.
Reviewed/Approved by

Michael C. Blundell
Registered Geologist
No. 5146

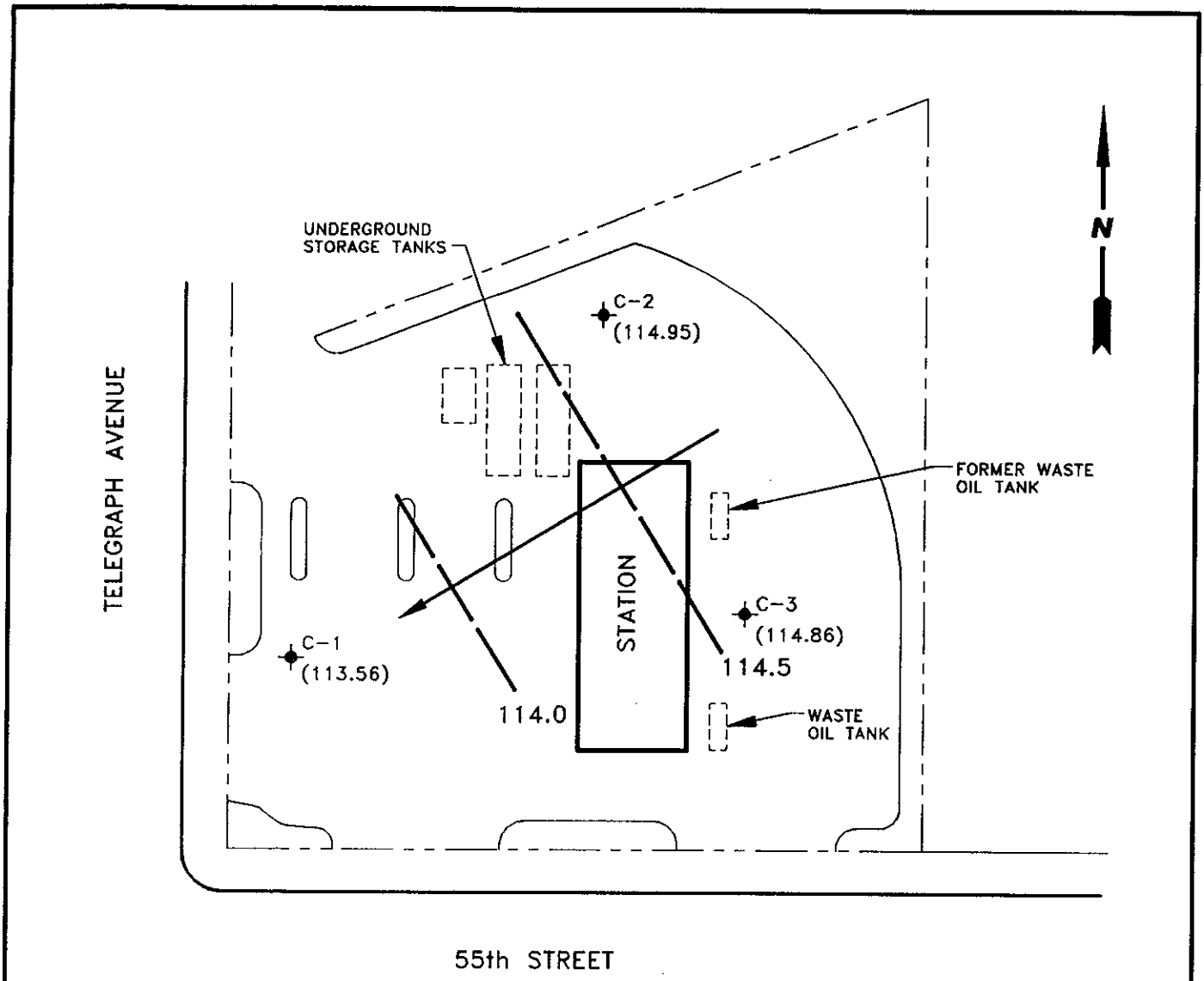
REGISTERED GEOLOGIST MICHAEL C. BLUNDELL No. 5146 STATE OF CALIFORNIA

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

4085R013.020

ATTACHMENT 1

Figure



LEGEND

- MONITORING WELL
- ( ) POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- PONTIOMETRIC SURFACE CONTOUR
- GROUNDWATER FLOW DIRECTION

0 FEET 40
SCALE

GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387				POTENTIOMETRIC SURFACE MAP (10/21/93)		
CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-0338				LOCATION: 5500 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	REV. NO.: 0	DATE: 10/21/93
PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
		TW	CY	PSM093	020204116	1

ATTACHMENT 2

Table

TABLE 1
GROUNDWATER MONITORING DATA
Chevron Service Station No. 9-0338
5500 Telegraph Avenue, Oakland, California

Well ID/ Elevation	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-D	TOG	TTL	HVOC	DTW (ft)	SPT (ft)	WTE (ft)
C-1	11/21/89	<500	<0.5	<0.5	<0.5	<0.5	—	—	—	—	10.75	0.00	113.13
	03/20/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	9.93	0.00	113.95
123.88	06/27/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	<0.5	—	9.64	0.00	114.24
	D06/27/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	<0.5	—	9.64	0.00	114.24
	*10/12/90	—	—	—	—	—	—	—	—	—	10.91	0.00	112.97
	D10/12/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	10.91	0.00	112.97
	12/20/90	75	<0.5	0.9	0.8	3	—	—	—	—	9.76	0.00	114.12
	D12/20/90	73	<0.5	0.6	0.7	2	—	—	—	—	9.76	0.00	114.12
	04/10/91	<50	0.7	1.2	<0.5	1.0	—	—	—	—	8.76	0.00	115.12
	D04/10/91	<50	0.9	1.5	<0.5	1.5	—	—	—	—	8.76	0.00	115.12
	02/26/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	8.08	0.00	115.80
	02/04/93	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	8.26	0.00	115.62
	07/27/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—	—	10.04	0.00	113.84
	09/22/93	79	<0.5	<0.5	<0.5	<1.5	—	—	—	—	10.32	0.00	113.56
C-2	11/21/89	<500	<0.5	<0.5	<0.5	<0.5	—	—	—	—	10.75	0.00	114.17
	03/20/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	9.44	0.00	115.48
124.92	06/27/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	<0.5	—	9.55	0.00	115.37
	10/12/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	10.89	0.00	114.03
	12/20/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	9.65	0.00	115.27
	04/10/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	8.04	0.00	116.88
	02/26/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	7.03	0.00	117.89
	02/04/93	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	7.06	0.00	117.86
	07/27/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—	—	9.78	0.00	115.14
	09/22/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—	—	9.97	0.00	114.95

GROUNDWATER TECHNOLOGY

TABLE 1
GROUNDWATER MONITORING DATA
Chevron Service Station No. 9-0338
5500 Telegraph Avenue, Oakland, California

Well ID/ Elevation	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-D	TOG	TTL	HVOC	DTW (ft)	SPT (ft)	WTE (ft)
C-3	11/21/89	<500	<0.5	<0.5	<0.5	<0.5	—	—	—	—	11.28	0.00	114.36
	01/12/90	—	—	—	—	—	<1000	<5000	—	—	—	0.00	—
125.64	03/20/90	<50	<0.5	<0.5	<0.5	<0.5	<50	<5000	—	—	10.39	0.00	115.25
	06/27/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	<0.5	—	10.32	0.00	115.32
	10/12/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	11.28	0.00	114.36
	12/20/90	54	<0.5	<0.5	<0.5	0.7	—	—	—	—	10.25	0.00	115.39
	04/10/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	8.79	0.00	116.85
	02/26/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	7.83	0.00	117.81
	02/04/93	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	7.94	0.00	117.70
	07/27/93	**280	<0.5	<0.5	<0.5	<1.5	—	—	—	—	10.59	0.00	115.05
	09/22/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—	***1.0	10.78	0.00	114.86
TRIP BLANK	03/20/90	<50	<0.5	<0.5	<0.5	<0.5	<50	—	—	—	—	—	—
	06/27/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—
	*10/12/90	—	—	—	—	—	—	—	—	—	—	—	—
	12/20/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—
	04/10/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—
	02/26/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—
	07/27/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—	—	—	—	—
	09/22/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—	—	—	—	—

TABLE 1
GROUNDWATER MONITORING DATA
Chevron Service Station No. 9-0338
5500 Telegraph Avenue, Oakland, California

Well ID/ Elevation	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-D	TOG	TTL	HVOC	DTW (ft)	SPT (ft)	WTE (ft)
RINSATE	06/27/90	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---
	*10/12/90	---	---	---	---	---	---	---	---	---	---	---	---
	12/20/90	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---
	04/10/91	<50	<0.5	0.6	<0.5	<0.5	---	---	---	---	---	---	---
	02/26/92	<50	<0.5	<0.5	<0.5	3.3	---	---	---	---	---	---	---

TPH-G	=	Total petroleum hydrocarbons-as-gasoline
TPH-D	=	Total petroleum hydrocarbons-as-diesel fuel
TTL	=	Lead
TOG	=	Total oil and grease
DTW	=	Depth to water
SPT	=	Separate-phase hydrocarbon thickness
WTE	=	Water table elevations measured to mean sea level
---	=	Not applicable/not measured/not sampled
D	=	Duplicate
*	=	Samples broken by laboratory.
**	=	Gasoline range concentrations reported. The pattern of peaks observed in the chromatogram shows only single peak in the gasoline range.
***	=	Dichloromethane

ATTACHMENT 3

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 9-0338
Reported 08-October-1993

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Chronology

Laboratory Number 14779

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
C-3	09/22/93	10/06/93	/ /	10/06/93		3

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 9-0338
Reported 08-October-1993

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Laboratory Number	Sample Identification	Matrix
14779- 3	C-3	Water

RESULTS OF ANALYSIS

Laboratory Number: 14779- 3

Chloromethane/Vinyl Ch:	ND<1.0
Bromomethane:	ND<0.5
Chloroethane:	ND<0.5
Trichlorofluoromethane:	ND<0.5
1,1-Dichloroethene:	ND<0.5
Dichloromethane:	1.0
t-1,2-Dichloroethene:	ND<0.5
1,1-Dichloroethane:	ND<0.5
c-1,2-Dichloroethene:	ND<0.5
Chloroform:	ND<0.5
1,1,1-Trichloroethane:	ND<0.5
Carbon tetrachloride:	ND<0.5
1,2-Dichloroethane:	ND<0.5
Trichloroethene:	ND<0.5
c-1,3-Dichloropropene:	ND<0.5
1,2-Dichloropropane:	ND<0.5
t-1,3-Dichloropropene:	ND<0.5
Bromodichloromethane:	ND<0.5
1,1,2-Trichloroethane:	ND<0.5
Tetrachloroethene:	ND<0.5
Dibromochloromethane:	ND<0.5
Chlorobenzene:	ND<0.5
Bromoform:	ND<0.5
1,1,2,2-Tetrachloroeth:	ND<0.5
1,3-Dichlorobenzene:	ND<0.5
1,2-Dichlorobenzene:	ND<0.5
1,4-Dichlorobenzene:	ND<0.5

Concentration: ug/L

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.
Quality Assurance and Control Data - Water

Laboratory Number 14779

Compound	Method Blank (ug/L)	PQL (ug/L)	Average Spike Recovery (%)	Limits (%)	RPD (%)
Chloromethane/Vinyl Ch:	ND<1.0	1.0			
Bromomethane:	ND<0.5	0.5			
Chloroethane:	ND<0.5	0.5			
Trichlorofluoromethane:	ND<0.5	0.5			
1,1-Dichloroethene:	ND<0.5	0.5	75%	70-143	5%
Dichloromethane:	ND<0.5	0.5			
t-1,2-Dichloroethene:	ND<0.5	0.5			
1,1-Dichloroethane:	ND<0.5	0.5			
c-1,2-Dichloroethene:	ND<0.5	0.5			
Chloroform:	ND<0.5	0.5			
1,1,1-Trichloroethane:	ND<0.5	0.5			
Carbon tetrachloride:	ND<0.5	0.5			
1,2-Dichloroethane:	ND<0.5	0.5			
Trichloroethene:	ND<0.5	0.5	110%	79-132	1%
c-1,3-Dichloropropene:	ND<0.5	0.5			
1,2-Dichloropropane:	ND<0.5	0.5			
t-1,3-Dichloropropene:	ND<0.5	0.5			
Bromodichloromethane:	ND<0.5	0.5			
1,1,2-Trichloroethane:	ND<0.5	0.5			
Tetrachloroethene:	ND<0.5	0.5			
Dibromochloromethane:	ND<0.5	0.5			
Chlorobenzene:	ND<0.5	0.5	132%	92-132	9%
Bromoform:	ND<0.5	0.5			
1,1,2,2-Tetrachloroeth:	ND<0.5	0.5			
1,3-Dichlorobenzene:	ND<0.5	0.5			
1,2-Dichlorobenzene:	ND<0.5	0.5			
1,4-Dichlorobenzene:	ND<0.5	0.5			

Definitions:

ND = Not Detected
PQL = Practical Quantitation Limit

RPD = Relative Percent Difference

QC File No. 14779

10/8/93

Senior Chemist
Account Manager

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

Groundwater Technology Inc.
Attn: TIM WATCHERS

Project 02020 4116 0610
Reported 10/05/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
14779- 1	TB-LB	09/22/93	09/30/93	Water
14779- 3	C3	09/22/93	09/30/93	Water
14779- 5	C2	09/22/93	09/30/93	Water
14779- 7	C1	09/22/93	10/02/93	Water

RESULTS OF ANALYSIS

Laboratory Number:	14779- 1	14779- 3	14779- 5	14779- 7
Gasoline:	ND<50	ND<50	ND<50	79
Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Xylenes:	ND<1.5	ND<1.5	ND<1.5	ND<1.5
Concentration:	ug/L	ug/L	ug/L	ug/L

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

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

QA/QC INFORMATION
SET: 14779

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

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L

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:	90/94	4%	75-125
Benzene:	96/98	2%	75-125
Toluene:	92/95	3%	75-125
Ethyl Benzene:	92/96	4%	75-125
Xylenes:	89/92	3%	75-125

Cecilia G. Joaquin
Senior Chemist
Account Manager

Certified Laboratories

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

14 / 17

Chain-of-Custody-Record

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

Chevron Facility Number 9-0338
Facility Address 5500 Telegraph Ave, Oakland
Consultant Project Number 02020 4116 0610
Consultant Name GTI
Address 4057 Port Chicago Hwy
Project Contact (Name) Tim Watchers
(Phone) 671-2387 (Fax Number) 685-9148

Chevron Contact (Name) Mark Miller
(Phone) 842-8134
Laboratory Name Superior
Laboratory Release Number 264 6690
Samples Collected by (Name) Greg MASON
Collection Date 9/22/93
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)	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)	601 (Hold)	8010					Remarks
TB-LB		2	W	G			yes	X														Do not bill TB-LB
RB-C3		1				HCL											X					
C3		5						X								X	X					hold 601 for C-3 if single peak shows up after running the TPH-G
RBC2		1															X					
C2		2						X														
RBC1		1															X					
C1		2	V	V		V	V	X														

Please Initial:
Samples Stored in ice.
Appropriate containers.
Samples preserved.
VOA's without headspace.
Comments:

call Tim W. He will give verbal authorization to run the 601.

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	GTI	9/23/93 700		GTI	9/23/93 700
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	GTI	9/23/93 1045			
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
	Super	9-23			9/23/93

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted