



## Chevron U.S.A. Products Company

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500  
Mail Address P.O. Box 5004, San Ramon, CA 94583-0804

92 JUN 17 11:17:17

Marketing Department

June 16, 1992

Mr. Edgar Howell  
Alameda County Health Care Services  
80 Swan Way, Room 200  
Oakland, CA 94621

**Re: Chevron Service Station #9-1583  
5509 Martin Luther King Way, Oakland**

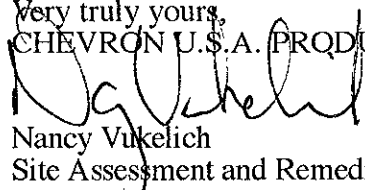
Dear Mr. Howell:

Enclosed we are forwarding the Quarterly Ground Water Sampling Report dated June 2, 1992, 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. Benzene was detected in monitor wells MW-1, MW-2 and MW-3 only at concentrations of 450, 9.3 and 1,500 ppb, respectively. Depth to ground water was measured at approximately 8.6 to 13-feet below grade, and the direction of flow is to the southwest.

Chevron will continue to sample this site and report findings on a quarterly basis.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-9581.

Very truly yours,  
CHEVRON U.S.A. PRODUCTS COMPANY

  
Nancy Vukelich  
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rich Hiatt, RWQCB-Bay Area  
Mr. S.A. Willer  
File (9-1583Q4)

*Wrong: its to the northwest*

**GROUNDWATER  
TECHNOLOGY, INC.**

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

FAX: (415) 685-9148

June 2, 1992

Project No. 020302228

Ms. Nancy Vukelich  
Chevron U.S.A. Inc.  
P. O. Box 5004  
San Ramon, CA 94583-0804

JUN 9 '92 JST

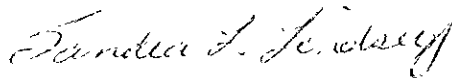
**SUBJECT: GROUNDWATER MONITORING AND SAMPLING ACTIVITIES  
CHEVRON SERVICE STATION NO. 9-1583  
5509 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA**

Dear Ms. Vukelich:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on May 13, 1992. Five of the six groundwater monitoring wells at this site were gauged to determine depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. A car parked over well MW-6 prevented monitoring and sampling. A potentiometric surface map (Figure 1) and a summary of groundwater monitoring data (Table 1) are presented in Attachments A and B, respectively. After measuring the DTW, each monitoring well was purged and sampled. The groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and total petroleum hydrocarbons (TPH)-as-gasoline. Results of the chemical analyses are summarized in Table 1. Laboratory reports and chain-of-custody records are included in Attachment C. Monitoring well purge water was transported by Groundwater Technology, Inc. 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 feel free to call Groundwater Technology at our Concord office at (510) 671-2387.

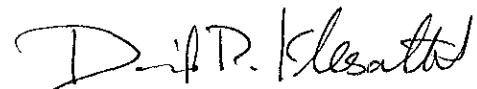
Sincerely,  
GROUNDWATER TECHNOLOGY, INC.



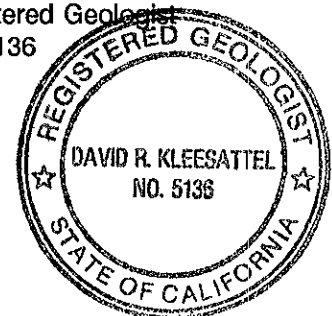
Sandra L. Lindsey  
Project Manager

Attachments: Attachment A - Figure 1  
Attachment B - Table 1  
Attachment C - Laboratory Reports

LR2228A1.NM  
(061022)



David R. Kleesattel  
Registered Geologist  
No. 5136

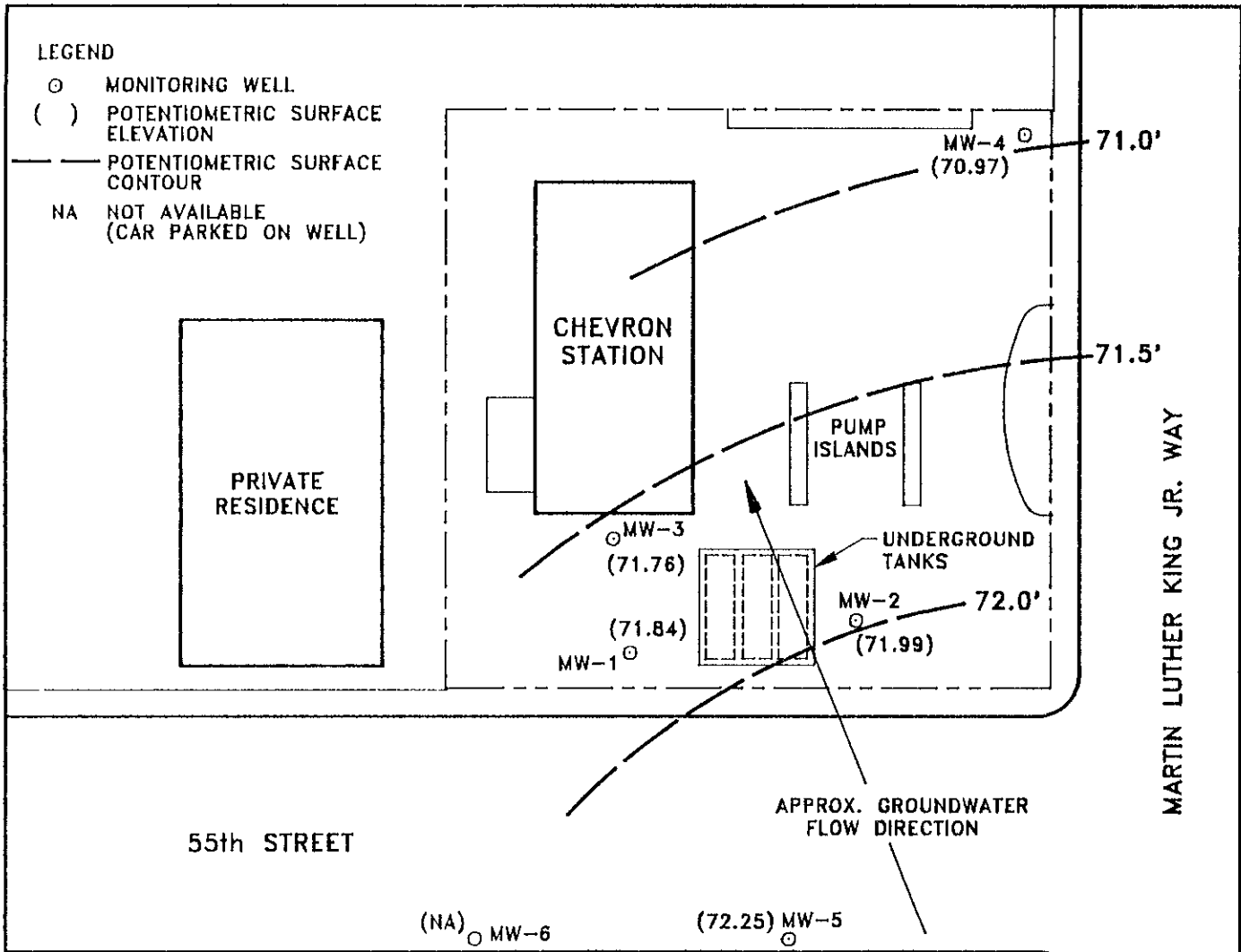


**ATTACHMENT A**

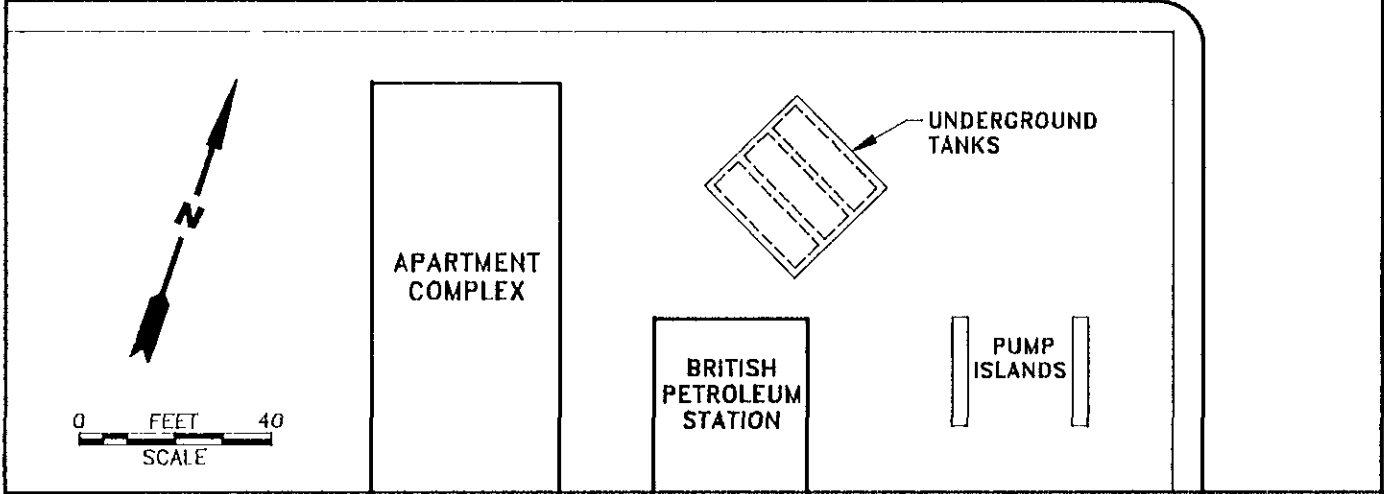
**FIGURE**

**LEGEND**

- MONITORING WELL
- ( ) POTENTIOMETRIC SURFACE ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR
- NA NOT AVAILABLE (CAR PARKED ON WELL)



MARTIN LUTHER KING JR. WAY



**GROUNDWATER TECHNOLOGY**  
 4057 PORT CHICAGO HWY  
 CONCORD, CA 94520  
 (510) 671-2387

**POTENTIOMETRIC SURFACE MAP  
 (5/13/92)**

CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-1583		LOCATION: 5509 MARTIN LUTHER KING JR. WAY OAKLAND, CALIFORNIA		REV. NO.: 0	DATE: 6/4/92
PM SAM	PE/RG DRE	DESIGNED GM	DETAILED ML	ACAD FILE: PSM51392/SP292	PROJECT NO.: 020302228
					FIGURE: 1

**ATTACHMENT B**

**TABLE**

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**CHEVRON SERVICE STATION NO. 9-1583**  
**5509 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA**

WELL ID/ ELEV	DATE	TPH-AS- GASOLINE	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (feet)	SPT (ft)	WTE (ft)
MW-1  81.97/ 82.42	12/22/83	--	--	--	--	--	10.25	0.0	71.72
	12/30/83	--	--	--	--	--	9.17	0.0	72.80
	03/12/90	50,000	3,000	7,300	1,900	18,000	10.08	0.0	71.89
	03/25/90	--	--	--	--	--	10.46	0.0	71.51
	10/18/90	--	--	--	--	--	--	--	--
	10/31/90	--	--	--	--	--	--	--	--
	11/16/90	--	--	--	--	--	11.58	0.0	70.84
	02/08/91	100,000	4,200	8,400	16,000	2,600	10.11	0.0	72.31
	05/08/91	31,000	200	66	670	2,000	10.45	0.0	71.97
	08/12/91	17,000	81	7.2	270	710	11.23	0.0	71.19
	11/07/91	7,100	24	6	130	170	10.70	0.0	71.72
	02/05/92	110,000	8,900	14,000	2,700	12,000	10.37	0.0	72.05
	05/13/92	19,000	450	85	480	870	10.58	0.0	71.84
	MW-2  83.48	12/22/83	--	--	--	--	--	10.50	0.0
12/30/83		--	--	--	--	--	9.92	0.0	73.56
03/12/90		800	400	22	18	55	11.02	0.0	72.46
03/25/90		--	--	--	--	--	11.33	0.0	72.15
10/18/90		--	--	--	--	--	12.31	0.0	71.17
10/31/90		--	--	--	--	--	--	--	--
11/16/90		--	--	--	--	--	--	--	--
02/08/91		4,600	820	440	720	210	11.05	0.0	72.43
05/08/91		<50	5	<0.5	<0.5	<0.5	11.36	0.0	72.12
08/12/91		<50	<0.5	<0.5	<0.5	<0.5	11.97	0.0	71.51
11/07/91		<50	<0.5	<0.5	<0.5	<0.5	11.50	0.0	71.98
02/05/92		1,700	390	170	60	200	11.19	0.0	72.29
05/13/92		74*	9.3	<0.5	<0.5	<0.5	11.49	0.0	71.99

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**CHEVRON SERVICE STATION NO. 9-1583**  
**5509 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA**

WELL ID/ ELEV	DATE	TPHAS- GASOLINE	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (feet)	SPT (ft)	WTE (ft)
MW-3  84.36/ 84.38	12/22/83	--	--	--	--	--	11.58	0.0	72.78
	12/30/83	--	--	--	--	--	11.17	0.0	73.19
	03/12/90	47,000	1,000	9,900	1,700	9,800	12.14	0.0	72.22
	03/25/90	--	--	--	--	--	12.55	0.0	71.81
	10/18/90	--	--	--	--	--	--	--	--
	10/31/90	--	--	--	--	--	--	--	--
	11/16/90	--	--	--	--	--	13.62	0.0	70.76
	02/08/91	58,000	4,900	5,200	9,500	2,000	12.18	0.0	72.20
	05/08/91	50,000	2,100	1,400	2,000	9,400	12.52	0.0	71.86
	08/12/91	15,000	1,300	160	920	1,900	13.27	0.0	71.11
	11/07/91	26,000	1,000	310	1,900	5,900	12.81	0.0	71.57
	02/05/92	35,000	2,800	1,300	1,500	4,700	12.47	0.0	71.91
	05/13/92	47,000	1,500	1,200	1,100	4,800	12.62	0.0	71.76
MW-4/  84.25	10/18/90	--	--	--	--	--	15.75	0.0	68.50
	10/31/90	<50	<0.5	<0.5	<0.5	1	13.90	0.0	70.35
	11/16/90	--	--	--	--	--	14.25	0.0	70.00
	02/08/91	60	17	2	12	<0.5	12.32	0.0	71.93
	05/08/91	65	<0.5	<0.5	<0.5	<0.5	12.23	0.0	72.02
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	13.93	0.0	70.32
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	13.42	0.0	70.83
	02/05/92	<50	<0.5	<0.5	<0.5	<0.5	12.83	0.0	71.42
	05/13/92	<50	<0.5	<0.5	<0.5	<0.5	13.28	0.0	70.97
MW-5  81.95	10/18/90	--	--	--	--	--	10.78	0.0	71.17
	10/31/90	110	<0.5	<0.5	<0.5	<0.5	10.63	0.0	71.32
	11/16/90	--	--	--	--	--	10.68	0.0	71.27
	02/08/91	<50	<0.5	<0.5	<0.5	<0.5	9.17	0.0	72.78
	05/08/91	<50	<0.5	<0.5	<0.5	<0.5	8.68	0.0	73.27
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	10.33	0.0	71.62
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	9.76	0.0	72.19
	02/05/92	69*	<0.5	<0.5	<0.5	<0.5	9.47	0.0	72.48
	05/13/92	74*	<0.5	<0.5	<0.5	<0.5	9.70	0.0	72.25

**TABLE 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**  
**CHEVRON SERVICE STATION NO. 9-1583**  
**5509 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA**

WELL ID/ ELEV	DATE	TPH-AS- GASOLINE	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (feet)	SPT (ft)	WTE (ft)
MW-6  80.60	10/18/90	--	--	--	--	--	9.79	0.0	70.81
	10/31/90	<50	<0.5	<0.5	<0.5	3	9.69	0.0	70.91
	11/16/90	--	--	--	--	--	9.74	0.0	70.86
	02/08/91	--	--	--	--	--	--	--	--
	05/08/91	56	<0.5	<0.5	<0.5	<0.5	9.54	0.0	71.06
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	9.50	0.0	71.10
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	8.89	0.0	71.71
	02/05/92	<50	<0.5	<0.5	<0.5	<0.5	8.59	0.0	72.01
	05/13/92	--	--	--	--	--	--	--	--
TRIP BLANK	03/12/90	<50	<0.3	<0.3	<0.3	<0.6	--	--	--
	02/08/91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	05/08/91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	02/05/92	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	05/13/92	<50	<0.5	<0.5	<0.5	<0.5	--	--	--

-- = not applicable/not sampled/not measured  
DTW = Depth to water  
SPT = Separate-phase hydrocarbon thickness  
WTE = Water table elevation  
81.97/82.42 = March 3, 1990 survey/November 30, 1990 survey

All elevations are given as feet above mean sea level.  
Analytical results in micrograms per liter ( $\mu$ /L), or parts per billion



**ATTACHMENT C**  
**LABORATORY REPORTS**



# 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

LABORATORY NO.: 13099  
CLIENT: Groundwater Technology Inc.  
CLIENT JOB NO.: 020302228..061004

DATE RECEIVED: 05/14/92  
DATE REPORTED: 05/19/92

Page 1 of 3

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
13099- 1	TB-LB	05/13/92	05/15/92
13099- 2	RB-MW4	05/13/92	05/18/92
13099- 3	MW4	05/13/92	05/15/92
13099- 4	RB-MW5	05/13/92	/ /
13099- 5	MW5	05/13/92	05/18/92
13099- 6	RB-MW2	05/13/92	/ /
13099- 7	MW2	05/13/92	05/15/92
13099- 8	RB-MW3	05/13/92	/ /
13099- 9	MW3	05/13/92	05/15/92
13099-10	RB-MW1	05/13/92	/ /

Laboratory Number:	13099	13099	13099	13099	13099
	1	2	3	4	5

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	ND<50	ND<50	NA	*74
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5	NA	ND<0.5
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	NA	ND<0.5
ETHYL BENZENE:	ND<0.5	ND<0.5	ND<0.5	NA	ND<0.5
XYLENES:	ND<0.5	1.0	ND<0.5	NA	ND<0.5

Laboratory Number:	13099	13099	13099	13099	13099
	6	7	8	9	10

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	NA	*74	NA	47000	NA
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	NA	9.3	NA	1500	NA
TOLUENE:	NA	ND<0.5	NA	1200	NA
ETHYL BENZENE:	NA	ND<0.5	NA	1100	NA
XYLENES:	NA	ND<0.5	NA	4800	NA



# 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

LABORATORY NO.: 13099  
CLIENT: Groundwater Technology Inc.  
CLIENT JOB NO.: 020302228..061004

DATE RECEIVED: 05/14/92  
DATE REPORTED: 05/19/92

Page 2 of 3

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
13099-11	MW1	05/13/92	05/15/92

Laboratory Number: 13099  
11

### ANALYTE LIST                      Amounts/Quantitation Limits (ug/L)

OIL AND GREASE:	NA
TPH/GASOLINE RANGE:	19000
TPH/DIESEL RANGE:	NA
BENZENE:	450
TOLUENE:	85
ETHYL BENZENE:	480
XYLENES:	870



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 3 of 3  
QA/QC INFORMATION  
SET: 13099

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

OIL AND GREASE ANALYSIS By Standard Methods Method 503E:  
Minimum Detection Limit in Water: 5000ug/L

Modified EPA-SW846 Method 8015 for Extractable Hydrocarbons:  
Minimum Quantitation Limit for Diesel in Water: 50ug/L  
Standard Reference: NA

EPA-SW846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:  
Minimum Quantitation Limit for Gasoline in Water: 50ug/L  
Standard Reference: 10/12/91

SW-846 Method 8020/BTXE  
Minimum Quantitation Limit in Water: 0.5ug/L  
Standard Reference: 04/07/92

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	04/07/92	200ng	93/90	3.4	76-111
Benzene	04/07/92	200ng	96/109	13	78-110
Toluene	04/07/92	200ng	90/102	12	78-111
Ethyl Benzene	04/07/92	200ng	88/99	12	78-118
Total Xylene	04/07/92	600ng	92/103	11	73-113

\* Does not match typical gasoline pattern.

Richard Srna, Ph.D.

*Cecilia Young (for)*  
Laboratory Director

