Xtra Oil Company
2307 Pacific Avenue, Alameda, CA 94501
Tel. (510) 865-9503, Fax (510) 865-1889

September 28, 1992

Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Scott Seery

Regarding: 3495 Castro Valley Blvd.
Castro Valley

Dear Mr. Seery,

Please find enclosed Quarterly Report for monitoring and sampling performed at the above location for the second quarter 1992.

Very truly yours,

Keith Simas

Enclosures

P & D ENVIRONMENTAL

300 Monte Vista, #101
Oakland, CA 94611
Telephone (510) 658-6916

September 18, 1992

Mr. Ted Simas
Mr. Keith Simas
XTRA OIL COMPANY
2307 Pacific Ave.
Alameda, CA 94501

SUBJECT: Quarterly Groundwater Monitoring and Sampling Report
XTRA OIL COMPANY
3195 Castro Valley Blvd.
Castro Valley, CA

Gentlmen:

P&D Environmental (P&D) is pleased to present this report documenting the results of the most recent quarterly monitoring and sampling of the wells at the subject site. The reporting period is for February, March, April and May, 1992. A Site Location Map (Figure 1) and Site Plan (Figure 2) are attached with this report.

BACKGROUND

The site is currently used as a gasoline station. Four 10,000 gallon underground fuel storage tanks are present at the site. Three of the tanks contain gasoline and the fourth tank contains diesel fuel. A 550 gallon waste oil tank was removed from the site in November, 1988.

Three monitoring wells, designated as MW1, MW2 and MW3 were installed at the site on February 15, 1990 by Wedge Western Geo-Engineers. Soil samples collected during drilling of the boreholes for the monitoring wells revealed the presence of total petroleum hydrocarbons as gasoline (TPH-G) and total petroleum hydrocarbons as diesel (TPH-D). TPH-G was encountered in boreholes MW1 and MW3 at depths ranging from 5 to 15 feet below grade and at concentrations ranging from 10 to 1,400 ppm at MW1 and concentrations ranging from 25 to 250 ppm at MW3. In MW2, TPH-G was encountered at depths ranging from 10 to 15 feet below grade and at concentrations ranging from 95 to 230 ppm. In borehole MW3, TPH-D was encountered at concentrations ranging up to 1,200 ppm. **Groundwater was encountered in the boreholes at a depth of 15 feet below grade.**

On February 15, 1990 Wedge Western Geo-Engineers drilled three exploratory boreholes at the site designated as SB1, SB2 and SB3. Soil samples were collected from the exploratory boreholes at depths of 10 and 12 feet. TPH-G was detected in SB1 at a depth of 10 feet and at a concentration of 1,700 ppm. In SB2 and SB3, TPH-G was detected at depths of 10 and 12 feet. TPH-G concentrations in both boreholes were 800 ppm at a depth of 10 feet and 2,000 ppm at a depth of 12 feet.

A groundwater monitoring and sampling program was initiated at the site on February 20, 1990.

FIELD ACTIVITIES

On May 29, 1992 all of the wells at the site were monitored and sampled by K&B Environmental of San Jose, California. The wells were monitored for depth to water and the presence of free product or sheen. Depth to water was measured to the nearest 0.01 foot using an electric water level indicator. The presence of sheen was evaluated using a transparent bailer. A sheen was observed in all of the wells. Depth to water level measurements are presented in Table 1.

Prior to sampling, the wells were purged of a minimum of three casing volumes of water. During purging operations, the field parameters of electrical conductivity, temperature and pH were monitored. Once the field parameters were observed to stabilize, and a minimum of three casing volumes had been purged, water samples were collected using a clean Teflon bailer. The water samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles which were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure that no air bubbles were present.

The VOA vials and bottles were then transferred to a cooler with ice, until they were transported to Trace Analysis Laboratory, Inc. in Hayward, California. Trace Analysis Laboratory, Inc. is a State-certified hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report.

HYDROGEOLOGY

Water levels were measured in the wells once during the quarter. The measured depth to water at the site on May 29, 1992 ranged from 8.15 to 9.31 feet. Groundwater levels have decreased in wells MW1, MW2 and MW3 by 0.02, 0.31 and 0.19 feet, respectively, since the previous quarter. The groundwater flow direction on May 29, 1992 was to the southeast (S36E) with a gradient of 0.0050. The groundwater flow direction and gradient have remained relatively unchanged since the end of the previous quarter.

Groundwater monitoring data collected during the quarter are presented in Table 1. The groundwater flow direction and gradient at the site on May 29, 1992 are shown on Figure 2.

LABORATORY RESULTS

All of the groundwater samples collected from the monitoring wells were analyzed for TPH-G using EPA Method 5030 and Modified EPA Method 8015; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8020; and for TPH-D using EPA Method 3510 in conjunction with Modified EPA Method 8015.

The laboratory analytical results for the groundwater samples from MW1, MW2 and MW3 showed TPH-G at concentrations of 120, 89 and 370 ppm, respectively, and TPH-D at concentrations of 11, 130 and 27 ppm, respectively. Since the previous quarter, TPH-G concentrations have increased in all of the wells, and TPH-D concentrations have decreased in all of the wells. The laboratory analytical

results are summarized in Table 2. Copies of the laboratory analytical results and chain of custody documentation are attached with this report.

DISCUSSION AND RECOMMENDATIONS

During this quarter, the monthly sampling program was reduced to a quarterly sampling program in accordance with discussions with Mr. Scott Seery of the Alameda County Health Care Service. Replacement of the underground storage tanks is scheduled to occur during the next quarter. Based on the laboratory analytical results of the water samples collected from the monitoring wells, P&D recommends that the quarterly groundwater monitoring program be continued.

DISTRIBUTION

Copies of this report should be sent to Mr. Richard Hiett at the Regional Water Quality Control Board, San Francisco Bay Region, and to Mr. Scott Seery at the Alameda Health Care Services. Copies of the report should be accompanied by a transmittal letter signed by the principal executive officer of the XTRA OIL Company.

LIMITATIONS

This report was prepared solely for the use of XTRA OIL. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgement based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgement based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no

warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact Paul King at (510) 658-6916.

Sincerely,

P&D Environmental

Paul H. King

Paul H. King
Hydrogeologist

Sherban A. Duncan
Registered Civil Engineer
Registration No.: 32972
Expiration Date: 6/30/94

PHK
0014.R1

Attachments: Tables 1 & 2
Site Location Map (Figure 1)
Site Plan (Figure 2)
Field Parameter Forms
Laboratory Analytical Results
Chain of Custody Documentation

TABLE 1

WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	5/29/92	175.73	8.59	167.14
	1/14/92		8.57	167.16
	12/23/91		9.65	166.08
	11/25/91		9.41	166.32
	10/10/91		9.70	166.03
	9/17/91		9.50	166.23
	8/19/91		9.31	166.42
MW2	5/29/92	175.45	9.31	166.14
	1/14/92		8.97	166.48
	12/23/91		10.39	165.06
	11/25/91		9.81	165.64
	10/10/91		10.39	165.06
	9/17/91		10.23	165.22
	8/19/91		9.60	165.85
MW3	5/29/92	175.00	8.45	166.55
	1/14/92		8.24	166.55
	12/23/91		9.37	165.63
	11/25/91		9.19	165.81
	10/10/91		9.43	165.57
	9/17/91		9.20	165.80
	8/19/91		8.95	166.05

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected On May 27, 1992			
MW1	11	120	8.8	16	2.3	15
MW2	130	89	18	19	1.7	14
MW3	27	370	91	57	3.0	21
			Samples Collected On January 14, 1992			
MW1	19	39	7.3	8.7	1.3	8.9
MW2	1600	59	17	14	1.8	15
MW3	270	130	76	30	3.4	21
			Samples Collected On December 23, 1991			
MW1	34	78	9.3	7.3	0.54	13
MW2	700	2100	36	130	79	560
MW3	540	740	30	61	31	180
			Samples Collected On November 25, 1991			
MW1	36	170	5.5	5.6	1.6	8.4
MW2	130	230	11	9.7	1.4	9.7
MW3	74	150	65	31	3.4	18

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
Results in parts per million (ppm), unless otherwise indicated.

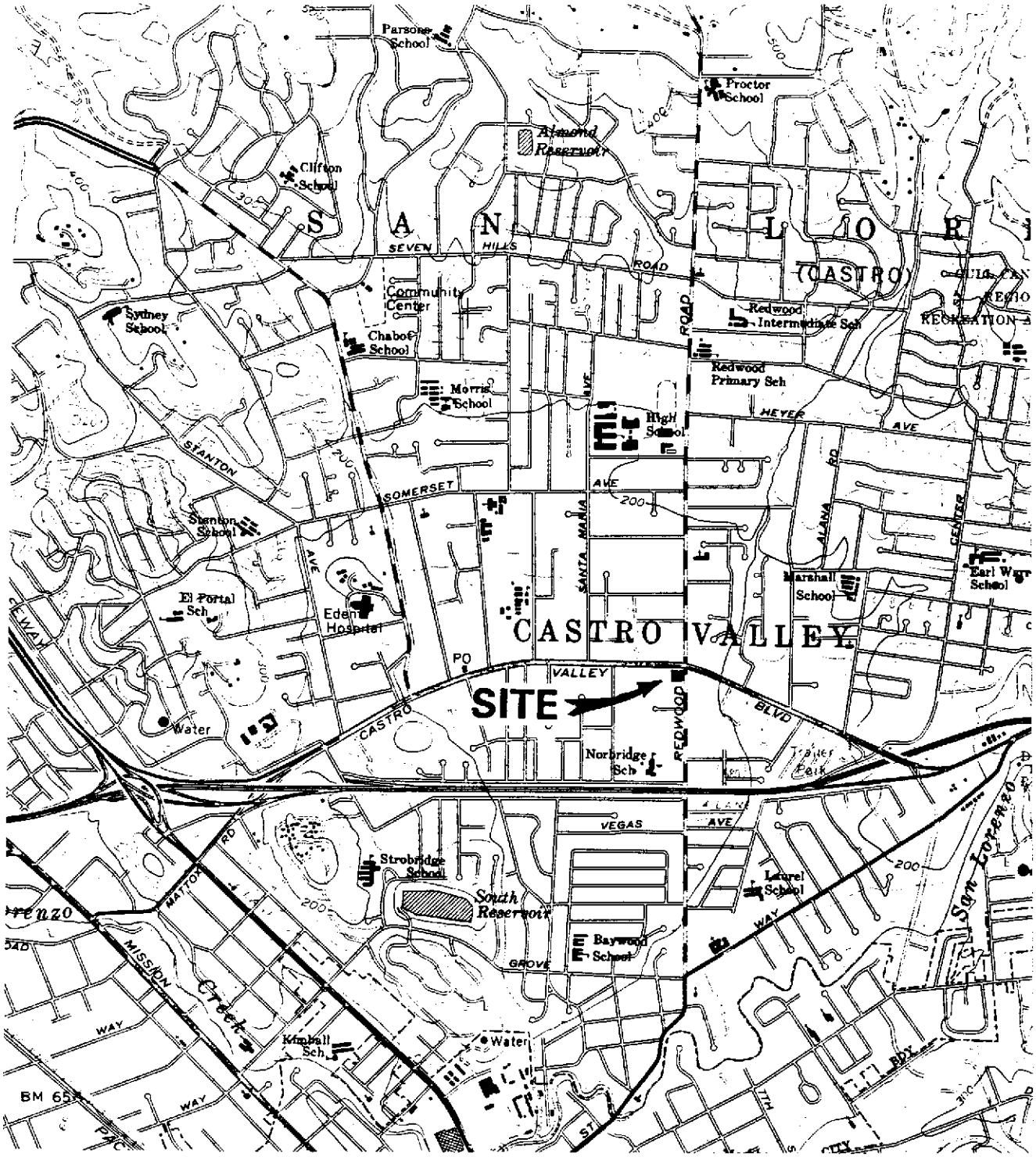
TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
(Continued)

Well No.	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected On October 10, 1991			
MW1	19	28	1.1	1.7	1.0	1.8
MW2	360	85	21	25	2.1	14
MW3	39	140	57	31	2.2	14
			Samples Collected On September 17, 1991			
MW1	19	39	1.9	1.1	1.2	5.9
MW2	56	74	10	11	1.4	8.1
MW3	140	180	47	25	2.6	15
			Samples Collected On August 19, 1991			
MW1	17	18	13	8.4	0.99	29
MW2	19	69	26	22	2.1	18
MW3	150	170	82	31	4.4	22

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
Results in parts per million (ppm), unless otherwise indicated.

P & D ENVIRONMENTAL

300 Monte Vista, #101
Oakland, CA 94611
Telephone (510) 658-6916

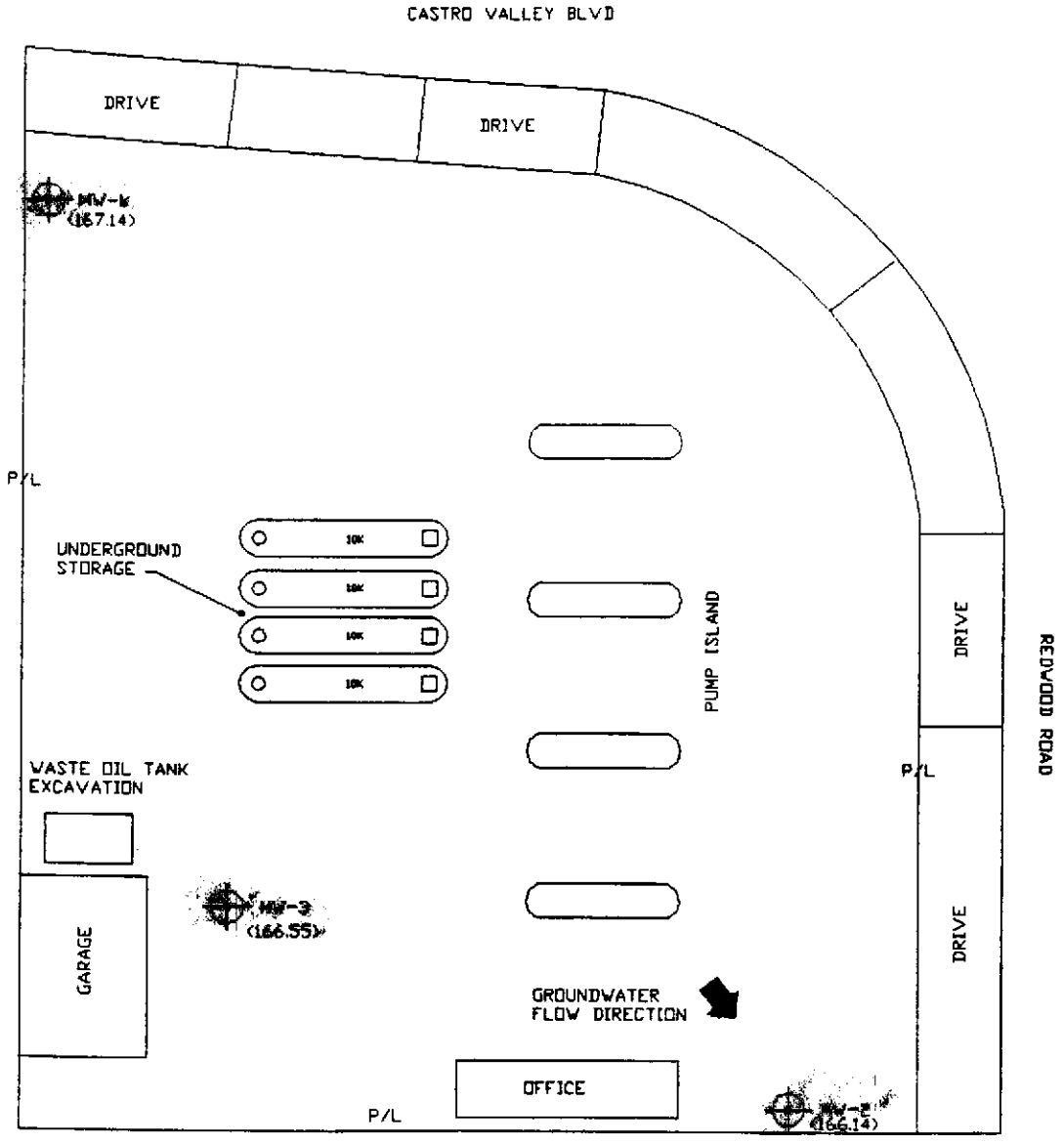


Base Map from:
U.S. Geological Survey
Hayward, Calif.
7.5 Minute Quadrangle
Photorevised 1980

Figure 1
SITE LOCATION MAP
XTRA OIL Company
3195 Castro Valley Blvd.
Alameda, California

P & D ENVIRONMENTAL

300 Monte Vista, #101
Oakland, CA 94611
Telephone (510) 658-6916



LEGEND

⊕ Monitoring Well Location

➡ Groundwater Flow Direction

( ) Groundwater Surface Elevation on 5/29/92

P/L Property Line

N

0 10 20 30 60

Scale in Feet

Base Map from:
K&B Environmental
dated 9/14/92

Figure 2
SITE PLAN
XTRA OIL Company
3195 Castro Valley Blvd.
Castro Valley, CA

K&B Environmental
Groundwater Sample Collection
Data Sheet

Collected By K. Bond

Sample Number MW-1 CBS

Date Collected 5/27/97

Sample Container 40ml VOA

Time Collected 11:40

Analysis Required GRO, DRO/BTEX

Date Shipped 5/27/97

Sample Preservation HCl

Observations Clear - slight odor

Field Parameters

Well Number MW-1

Purge Method Bailer pump

Collection Method Bail

Well Diameter 4" IN.

Well Depth 25' FT.

Depth To Water 8.59 FT.

Well Purge Volume 7 Gal. Total Volume Purged 28 gal

	Volume Purged	Temp.(°C)	PH	Conductivity
(1)	7	15°	6.1	"not Available"
(2)	7	15°	6.15	
(3)	7	15°	6.0	
(4)	7	15°	6.1	

K&B Environmental
Groundwater Sample Collection
Data Sheet

Collected By K.B.S.A. Sample Number MW-2 GW

Date Collected 5/29/92 Sample Container 40ml VOA, 1 Liter Amber

Time Collected 11:59 Analysis Required GAS Diesel BTEX

Date Shipped 5/29/92 Sample Preservation Yes

Observations Slow recharge

Field Parameters

Well Number MW-2 Purge Method Peristaltic pump

Collection Method Bailer Well Diameter 4" IN.

Well Depth 20 FT. Depth To Water 7.31 FT.

Well Purge Volume 5.6 Gal. Total Volume Purged 20 gal

Volume Purged	Temp.(°C)	PH	Conductivity
6 gal	15°C	PH 6.12	N/A
6 gal	15°C	PH 6.09	
6 gal	15°C	PH 6.1	
6 gal	15°C	PH 5.96	

K&B Environmental
Groundwater Sample Collection Data Sheet

Collected By V. Roth Sample Number MW-3

Date Collected 5/29/92 Sample Container 40 ml VOA

Time Collected 1230 Analysis Required [illegible]
[illegible]

Date Shipped 5/29/92 Sample Preservation [illegible]

Observations [illegible]

Field Parameters

Well Number MW-3 Purge Method [illegible] pump

Collection Method Bailer Well Diameter 4" IN.

Well Depth 20 FT. Depth To Water 8.45 FT.

Well Purge Volume 7 Gal. Total Volume Purged 28

Volume Purged	Temp.(°C)	PH	Conductivity
7	15	5.72	
7	15	5.96	
7	15	5.91	
7	15	6.0	

LOG NUMBER: 2167
DATE SAMPLED: 05/29/92
DATE RECEIVED: 06/01/92
DATE ANALYZED: 06/06/92 and 06/10/92
DATE REPORTED: 06/23/92
PAGE: Four

Sample Type: Water

Method and Constituent:	Units	MW-1 CAS Concentration	MW-1 CAS Reporting Limit	MW-2 CAS Concentration	MW-2 CAS Reporting Limit	MW-3 CAS Concentration	MW-3 CAS Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/l	120,000	1,400	89,000	550	370,000	2,900
Modified EPA Method 8020 for:							
Benzene	ug/l	8,800	90	18,000	55	91,000	180
Toluene	ug/l	16,000	70	19,000	42	57,000	140
Ethylbenzene	ug/l	2,300	70	1,700	42	3,000	140
Xylenes	ug/l	15,000	200	14,000	110	21,000	390

Method and Constituent:	Units	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:			
Total Petroleum Hydrocarbons as Gasoline	ug/l	ND	50
Modified EPA Method 8020 for:			
Benzene	ug/l	ND	0.50
Toluene	ug/l	ND	0.50
Ethylbenzene	ug/l	ND	0.50
Xylenes	ug/l	ND	1.5

QC Summary:

% Recovery: 108 and 120
% RPD: 3.0 and 20

Concentrations reported as ND were not detected at or above the reporting limit.

Louis W. DuPuis
Quality Assurance/Quality Control Manager

LOG NUMBER: 2167
DATE SAMPLED: 05/29/92
DATE RECEIVED: 06/01/92
DATE EXTRACTED: 06/05/92
DATE ANALYZED: 06/09/92
DATE REPORTED: 06/23/92
PAGE: Two

Sample Type: Water

Method and Constituent:	Units	MW-1 CAS Concentration	MW-1 CAS Reporting Limit	MW-2 CAS Concentration	MW-2 CAS Reporting Limit	MW-3 CAS Concentration	MW-3 CAS Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/l	11,000	57	130,000	300	27,000	300

Method and Constituent:	Units	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:			
Total Petroleum Hydrocarbons as Diesel	ug/l	ND	50

QC Summary:

% Recovery: 72
% RPD: 3.5

Concentrations reported as ND were not detected at or above the reporting limit.

These samples contain compounds eluting earlier than the diesel standard.

K&B ENVIRONMENTAL

309 Laurelwood Ave.
Suite 4
Santa Clara, Ca. 95054
TEL:(408) 988-8346
FAX:(408) 988-8348

CHAIN OF CUSTODY

2167

Project#	Project Name	Project Site Address	Sample Type (Gas Bag-A, Water-W, Soil-S)	Analysis: Gas/Diesel/BTEX				Remarks
035A	035 XTRA OIL Castro Valley	3495 Castro Valley Blvd Castro Valley, Ca.						

Sampler: K. Porter

Date	Time	Grab	Comp	Sample ID Number	Sample Type	Gas/Diesel/BTEX				Remarks
5/27/92		X		MW-1 CAS	W	X				Monitoring well MW-1 STRONG ODOR of Gas, SHEEN, transferred to [illegible]
↓		X		MW-2 CAS	W	X				Monitoring well MW-2 Diesel ODOR, Free Floating Product transferred [illegible]
↓		X		MW-3 CAS	W	X				Monitoring Well MW-3 Slight ODOR
5/27/92			X	SB-75	S	X				Brass TUBE - Doesn't need the sample analyzed per Kip Porter 6/1/92 JT - Ma.
5/27/92			X	OLD-PIT	S	X				Brass TUBE
										Pick-up water 1-liter ea; soil 1 bt ea
										2-40ml/HCl ea white; Y-4; Reg TAT; JT; one ice

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Page
	Ch. Cox 1405 6/1/92	Ch. Cox 1405 6/1/92	TAL [signature]	Sample SB-75 Jeanette [signature]	