

P & D ENVIRONMENTAL

A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

FAX TRANSMITTAL COVER SHEET

Date: 3/25/99 Job #: _____

To: Scott Seery

Company: Alameda Co Environmental Dept

From: Paul H. King
P&D ENVIRONMENTAL

Number of pages in this transmittal, including this cover sheet: 15

SUBJECT: XTRA OIL - Castro Valley Results

MESSAGE: Scott,

Attached are the following:

- (13 pp) Sample results for P20, P21, 23, 24, 25, 26
- (1 p) Map showing sample locations.

P29, P30 were collected 3/20/99.

Site access was denied for P 27 & P28.

We need to discuss the need to sample P22.

If transmittal is incomplete, please call (510) 658-6916.
P&D Environmental fax number: (510) 658-9074.

DESTINATION FAX NUMBER: 337-9335


McCAMPBELL ANALYTICAL INC.

 110 Second Avenue South, #D7, Pacheco, CA 94553
 Telephone: 925-798-1620 Fax: 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 01/29/99
	Client Contact: Paul King	Date Received: 02/01/99
	Client P.O:	Date Extracted: 02/01/99
		Date Analyzed: 02/01/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)*	MTBE	MTBE	Toluene	Ethylbenzene	Xylenes	% Recovery Surrogate
02604	P20	W	100,000,a,h	ND<2300	1500	1600	2300	18,000	109
02605	P21	W	71,000,a,h	ND<1200	15,000	8500	3300	9500	109
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	5.0	0.5	0.5	0.5	0.5	0.5	
	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram: sample peak coelutes with surrogate peak

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant (aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



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	Client Contact: Paul King	Date Received: 02/01/99
	Client P.O:	Date Extracted: 02/01/99
		Date Analyzed: 02/01/99

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *
 EPA methods modified 8015, and 3550 or 3510, California RWQCB (SF Bay Region) method GC/FID(3550) or GC/FID(3510)

Lab ID	Client ID	Matrix	TPH(d)	% Recovery Surrogate
02604	P20	W	68,000,d,b,h	116
02605	P21	W	36,000,d,b,h	101
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		50 ug/L	
	S		1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L
 * cluttered chromatogram resulting in coeluted surrogate and sample peaks, or, surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.
 *The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil-range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than -5 vol. % sediment.

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Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 02/01/99-02/02/99

Matrix: WATER

Analyte	Concentration (mg/L)			Amount Spiked	% Recovery		RPD
	Sample (#02263)	MS	MSD		MS	MSD	
TPH (gas)	0.0	116.8	112.2	100.0	116.8	112.2	4.0
Benzene	0.0	11.1	11.6	10.0	111.0	116.0	4.4
Toluene	0.0	11.4	11.8	10.0	114.0	118.0	3.4
Ethyl Benzene	0.0	11.3	11.3	10.0	113.0	113.0	0.0
Xylenes	0.0	32.4	32.2	30.0	108.0	107.3	0.6
TPH(diesel)	0.0	154	161	150	103	107	4.5
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$


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<http://www.mccampbell.com> E-mail: main@mccampbell.com

P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 11/24/98
	Client Contact: Paul King	Date Received: 11/25/98
	Client P.O:	Date Extracted: 11/25/98
		Date Analyzed: 11/27-12/01/98

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *


EPA methods modified 801.5, and 3550 or 3510; California RWQCB (SF Bay Region) method GC/FID(3550) or GC/FID(3510)

Lab ID	Client ID	Matrix	TPH(d)	Surrogate
99281	P23	W	ND	102
99282	P24	W	230,000,d,a,h	...
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		50 ug/L	
	S		1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/l.

* cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.


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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014: Xtra Oil-Castro Valley	Date Sampled: 11/24/98
	Client Contact: Paul King	Date Received: 11/25/98
	Client P.O.:	Date Extracted: 11/25/98
		Date Analyzed: 11/27-11/30/98

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline* with Methyl tert-Butyl Ether & BTEX
 EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GC/FID(5030)

Lab ID	Client ID	Matrix	TPH(g)*	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Recovery Surrogate
99281	P23	W	88j	---	ND	ND	ND	ND	90
99282	P24	W	36,000,a,h	---	3600	250	1900	7000	98
Reporting Limit unless otherwise stated: ND means not detected above the reporting limit:		W	50 ug/l.	50	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/l., wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/l.

^ cluttered chromatogram; sample peak coelutes with surrogate peak

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

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Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 11/26/98-11/27/98

Matrix: WATER

Analyte	Concentration* (mg/L)			Amount Spiked	% Recovery		RPD
	Sample (#98653)	MS	MSD		MS	MSD	
TPH (gas)	0.0	111.5	124.9	100.0	111.5	124.9	11.3
Benzene	0.0	10.2	10.0	10.0	102.0	100.0	2.0
Toluene	0.0	10.4	10.6	10.0	104.0	106.0	1.9
Ethyl Benzene	0.0	10.1	10.6	10.0	101.0	106.0	4.8
Xylenes	0.0	30.5	30.7	30.0	101.7	102.3	0.7
TPH (diesel)	0.0	165	151	150	110	100	8.9
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A


* Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

CHAIN OF CUSTODY RECORD

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PROJECT NUMBER: Jobs # 0014			PROJECT NAME: XTRA OIL - CASTRO VALLEY			NUMBER OF CONTAINERS	ANALYSIS(ES):		PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) Paul H. King							TPH (GL)	STEX		
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION						
+2 P23	11/24/78		Water	P23	Borehole	4	X	X	ICE	NORMAL FURN AROUND
+2 P24	11/24/78		Water	P24	Borehole	4	X	X	"	"
ICE <input checked="" type="checkbox"/> GOOD CONDITION <input checked="" type="checkbox"/> HEAD SPACE ABSENT <input checked="" type="checkbox"/> PRESERVATION APPROPRIATE <input checked="" type="checkbox"/> CONTAINERS <input checked="" type="checkbox"/> VOAS <input checked="" type="checkbox"/> O&G <input checked="" type="checkbox"/> METALS <input checked="" type="checkbox"/> OTHER <input checked="" type="checkbox"/>										
RELINQUISHED BY: (SIGNATURE) Paul H. King			DATE 11-25-78	TIME 10:10	RECEIVED BY: (SIGNATURE) Tom Hall 2839			TOTAL NO. OF SAMPLES (THIS DEPARTMENT) 2	LABORATORY: McCAMBERG ANALYTICAL	
RELINQUISHED BY: (SIGNATURE) Tom Hall			DATE 11/25	TIME 12:30	RECEIVED BY: (SIGNATURE) Dina A Ruttle			LABORATORY CONTACT: EO HAMILTON	LABORATORY PHONE NUMBER: (925) 798-1620	
RELINQUISHED BY: (SIGNATURE)			DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)			SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO		
REMARKS:										

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; XTRA Oil - Castro Valley	Date Sampled: 06/28/98
	Client Contact: Paul King	Date Received: 06/30/98
	Client P.O:	Date Extracted: 07/06/98
		Date Analyzed: 07/06/98

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)*	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	Recovery Surrogate
91391	P25	W	22,000,a,h,i	ND<200	ND	90	690	2100	103
91392	P26	W	ND,i	ND	ND	ND	ND	ND	93
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	5.0	0.5	0.5	0.5	0.5		
	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005		

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water (mobile phase is present); i) liquid sample that contains greater than -5 vol. % sediment; j) no recognizable pattern.


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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; XTRA Oil – Castro Valley	Date Sampled: 06/28/98
	Client Contact: Paul King	Date Received: 06/30/98
	Client P.O:	Date Analyzed: 07/02-07/04/98
		Date Extracted: 07/01/98

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel

EPA methods modified 801.5 and 3550 or 3510; California RWQCB (SF Bay Region) method GC/FID (3350) or GC/FID (3355)

Lab ID	Client ID	Matrix	TPH(d)*	% Recovery Surrogate
91391	P26	W	32,000,d,h,i	107
91392	P26	W	54,b,g,i	106
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		50 ug/L	
	S		1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/l.

* cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present. g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 07/01/98-07/02/98

Matrix: WATER

Analyte	Concentration (mg/L)			Amount Spiked	% Recovery		RPD
	Sample (#91177)	MS	MSD		MS	MSD	
TPH (gas)	0.0	109.0	107.7	100.0	109.0	107.7	1.2
Benzene	0.0	10.0	9.8	10.0	100.0	98.0	2.0
Toluene	0.0	10.4	10.2	10.0	104.0	102.0	1.9
Ethyl Benzene	0.0	10.2	10.1	10.0	102.0	101.0	1.0
Xylenes	0.0	29.9	29.9	30.0	99.7	99.7	0.0
TPH(diesel)	0.0	159	157	150	106	105	0.9
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553

Tel: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 07/06/98-07/07/98

Matrix: WATER

Analyte	Concentration (mg/L)			Amount Spiked	% Recovery		RPD
	Sample (#91209)	MS	MSD		MS	MSD	
TPH (gas)	0.0	91.0	83.7	100.0	91.0	83.7	8.4
Benzene	0.0	9.4	9.0	10.0	94.0	90.0	4.3
Toluene	0.0	9.9	9.4	10.0	99.0	94.0	5.2
Ethyl Benzene	0.0	10.1	9.6	10.0	101.0	96.0	5.1
Xylenes	0.0	30.4	28.9	30.0	101.3	96.3	5.1
TPH (diesel)	0.0	174	172	150	116	115	1.2
TRPH (oil & grease)	0	21500	21900	23700	91	92	1.8

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$


P & D ENVIRONMENTAL

A Division of Paul H. King, Inc.
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CHAIN OF CUSTODY RECORD

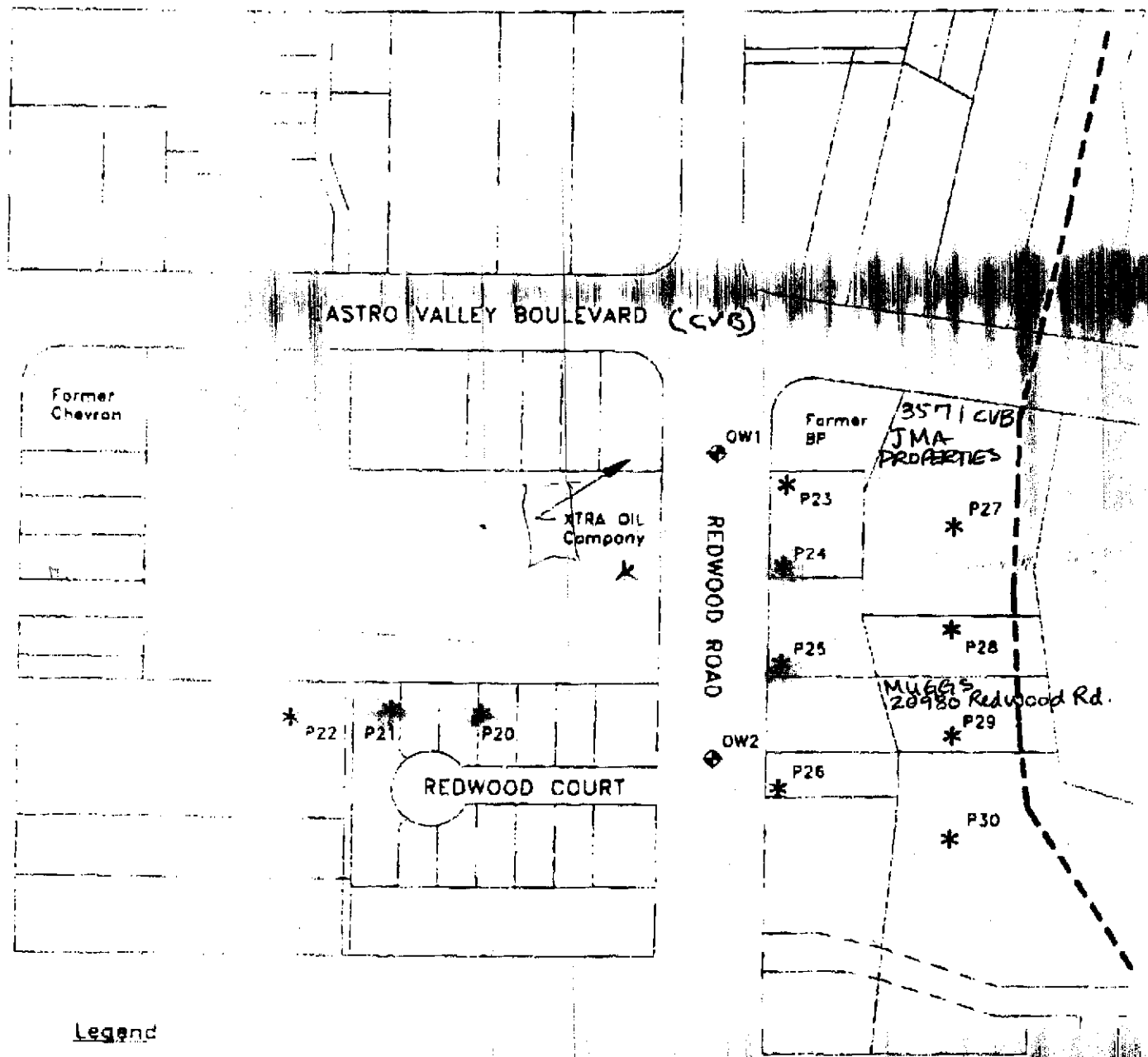
11615 xpd 277 doc

PAGE 1 OF 1

PROJECT NUMBER: 0014			PROJECT NAME: XTRA OIL - Castro Valley			NUMBER OF CONTAINERS	ANALYSIS(ES) TPH-Gas/STEX TPH-Direct				PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) Paul H. King												
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION								
5+ P25	6/28/98		Water	Borehole P25		4	X	X			ICE	Normal Turn Around
5+ P26	6/28/98		Water	Borehole P26		4	X	X			"	" " "
												
RELINQUISHED BY: (SIGNATURE) Paul H. King			DATE 6/30	TIME 9:45	RECEIVED BY: (SIGNATURE) Thuan # 2573			TOTAL NO. OF SAMPLES (THIS SHIPMENT) 2	LABORATORY: McCampbell Analytical			
RELINQUISHED BY: (SIGNATURE) Thuan # 2573			DATE 6/30	TIME 10:35	RECEIVED BY: (SIGNATURE) N. J. Ricci			TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 8	LABORATORY CONTACT: Fed Hamilton LABORATORY PHONE NUMBER: (510) 798-1620			
RELINQUISHED BY: (SIGNATURE)			DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)			SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO				
REMARKS: VOAs preserved with ICE.												

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P&D ENVIRONMENTAL
5106589074
03/25/1999 15:20

P & D Environmental
4020 Panama Court
Oakland, CA 94611
Telephone (510) 658-6916



Legend

- * Proposed Groundwater Grab Sample Collection Location
- ◆ Proposed Observation Well Location
- - - - - Approximate Creek Location

Base Map From:
Castro Valley Sanitation District
Undated
(821085)

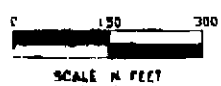


Figure 2
SITE VICINITY MAP
XTRA OIL Company
3459 Castro Valley Blvd
Castro Valley, California