reviewed 2/11/92
SDS

CALIFORNIA GEOPHYSICAL GROUP, INC.
12709 Poway Road, Suite 202, Poway, CA 92064 Tel: (619) 486-1323

91 AUG 21 AM 9:38

August 14, 1991

Department of Environmental Health
Alameda County
80 Swan Way Rm 200
Oakland, Ca 94621

Attn: Mr. Scott Seery

RE: Xtra Oil Co. Service Station, 3495 Castro Valley Blvd. Castro Valley, Ca.

QUARTERLY REPORT

May, June & July 1991

This report describes the work and sampling done at the site for May 17, June 20, and July 10, 1991 at which time water samples and groundwater depth measurements were taken.

During this quarter we have been analyzing various scenarios for a work plan. We have decided not to pursue the electromagnetic induction survey and at present the work plan is not finalized but should be in your hands soon.

Findings

We find the hydraulic gradient to have varied on June 20, 1991 from its normal southeastern direction it changed to east-northeast. The other two gradient measurements remain to the southeast. See tables I & II for lists of reading and gradient results.

Tables III & IIIA list the contaminant readings. The latest three readings are the highest they have ever been at this site. We discussed this with the Xtra Oil officials, but they are unaware of any reason for these readings. They state there have been no unauthorized releases other than those previously reported.

Xtra Oil has recently installed overfill protection at the site so we do not expect future spills from delivery operations.

We attempted to find some trends with all of the water testing we have done. Plot 4 shows Gradient Direction VS Velocity. In this case we do see a definite trend with the lowest velocity to the south. This type of flow pattern is consistent with what would be expected of a groundwater system controlled by the stream to the east of the property which is the case.

TABLE I

WATER TABLE ELEVATIONS

Well No.	Date	Casing Elev.	Depth to Water	Water Table Elev. AMSL
MW-1	2/20/90	175.73'	8.71'	167.02'
	3/19/90		8.98'	166.75'
	7/20/90		9.08'	166.65'
	8/23/90		9.25'	166.48'
	9/27/90		9.67'	166.06'
	12/17/90		8.73'	167.00'
	1/14/91		9.30'	166.43'
	2/15/91		9.00'	166.73'
	4/15/91		8.50'	167.23'
	5/17/91		9.00'	166.73'
	6/20/91		9.08'	166.65'
	7/10/91		9.20'	166.53'
MW-2	2/20/90	175.45'	8.61'	166.84'
	3/19/90		9.35'	166.10'
	7/20/90		9.58'	165.87'
	8/23/90		9.92'	165.53'
	9/27/90		10.29'	165.16'
	12/17/90		9.33'	166.12'
	1/14/91		9.75'	165.70'
	2/15/91		9.60'	165.85'
	4/15/91		9.08'	166.37'
	5/17/91		9.50'	165.95'
	6/20/91		9.50'	165.95'
	7/10/91		9.80'	165.65'
MW-3	2/20/90	175.00'	7.28'	167.72'
	3/19/90		8.08'	166.92'
	7/20/90		9.00'	166.00'
	8/23/90		8.92'	166.08'
	9/27/90		9.35'	165.65'
	12/17/90		8.60'	166.40'
	1/14/91		9.00'	166.00'
	2/15/91		8.60'	166.43'
	4/15/91		8.17	166.83'
	5/17/91		8.70'	166.30'
	6/20/91		8.34'	166.66'
	7/10/91		9.00'	166.00'

AMSL= Above Mean Sea Level

TABLE II

HYDRAULIC GRADIENT INFORMATION

Date	Direction	Gradient (Ft/FT.)
2/20/90	N55E	0.0036
3/19/90	N72E	0.0100
7/20/90	S5W	0.0056
8/23/90	S70E	0.0065
9/27/90	S58E	0.0051
12/17/90	S16E	0.0049
1/14/91	S31E	0.0039
2/15/91	S71E	0.0058
4/15/91	S56E	0.0051
5/17/91	S41E	0.0042
6/20/91	N78E	0.0087
7/10/91	S30E	0.0049

TABLE III

CHEMICAL ANALYSIS
REPORTED IN MG/L OR PPM

Well No.	Date	TPH	Benzene	Toluene	Xylenes	E.Benzene
MW-1	2/20/90	7.6	1.6	<0.015	1.3	<0.015
	3/19/90	40.0	3.7	1.1	3.3	<0.060
	7/20/90	44.0(D)	5.1	4.2	9.1	<0.0003
	8/23/90	40.0	5.1	4.9	6.0	0.35
	9/27/90	28.0	3.7	3.5	6.5	0.01
	1/14/91	33.0	3.9	2.9	5.3	0.21
	2/15/91	120.0	7.4	6.6	13.0	<3.0
	3/21/91	36.0	4.5	5.7	7.3	0.087
	4/15/91	56.0	6.5	8.5	9.9	0.41
MW-2	2/20/90	38.0	7.3	3.1	6.8	0.075
	3/19/90	50.0	7.7	8.7	5.6	0.075
	7/20/90	86.0(D)	9.1	14.0	13.0	0.94
	8/23/90	96.0	8.1	8.4	8.6	1.50
	9/27/90	59.0	8.4	12.0	9.0	0.88
	1/14/91	78.0	11.0	8.7	8.0	0.58
	2/15/91	200.0	12.0	12.0	14.0	1.70
	3/21/91	62.0	9.3	11.0	9.7	0.35
	4/15/91	82.0	5.3	7.4	9.4	1.00
MW-3	2/20/90	46.0	20.0	15.0	9.7	1.8
	3/19/90	210.0	38.0	28.0	12.0	1.8
	7/20/90	88.0(D)	25.1	21.2	14.1	0.61
	8/23/90	220.0	67.0	46.0	18.0	27.0
	9/27/90	25.0	7.2	6.4	3.4	0.42
	1/14/91	160.0	48.0	25.0	16.0	1.00
	2/15/91	230.0	44.0	40.0	31.0	<6.0
	3/21/91	87.0	30.0	14.0	5.4	0.69
	4/15/91	110.0	31.0	15.0	7.4	0.88

D= TPH High Boiling Hydrocarbons. No mark means TPH low to Medium Boiling Hydrocarbons.

TABLE IIIA
CHEMICAL ANALYSIS
REPORTED IN MG/L OR PPM

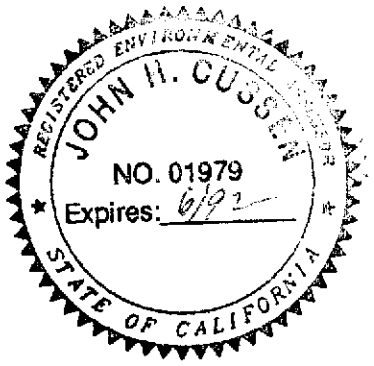
WELL NO.	DATE	TPH-G	TPH-D	Benzene	Toluene	Xylenes	E.Benz.
MW-1	5/17/91	72.0	26.0	7.7	9.9	11.0	<0.6
	6/20/91	76.0	42.0	4.7	7.1	9.8	1.5
	7/20/91	100.0	49.0	11.0	14.0	17.0	2.3
MW-2	5/17/91	62.0	33.0	5.9	6.3	9.0	1.2
	6/20/91	87.0	69.0	8.1	8.4	8.9	1.1
	7/10/91	51.0	100.0	9.9	7.7	7.5	1.2
MW-3	5/17/91	170.0	70.0	32.0	22.0	18.0	2.2
	6/20/91	920.0	210.0	39.0	49.0	69.0	13.0
	7/10/91	450.0	270.0	46.0	29.0	21.0	3.5

We also attempted to find trends for the contaminants, one of the results is shown on Plot 5. Unfortunately the data is too scattered to make real predictions. This plot is of TPH-G but other plots of individual contaminants were even less understandable.

Monthly monitoring at this site will continue, and a work plan to remove the tanks and partial remediation will be presented soon.

Yours truly,

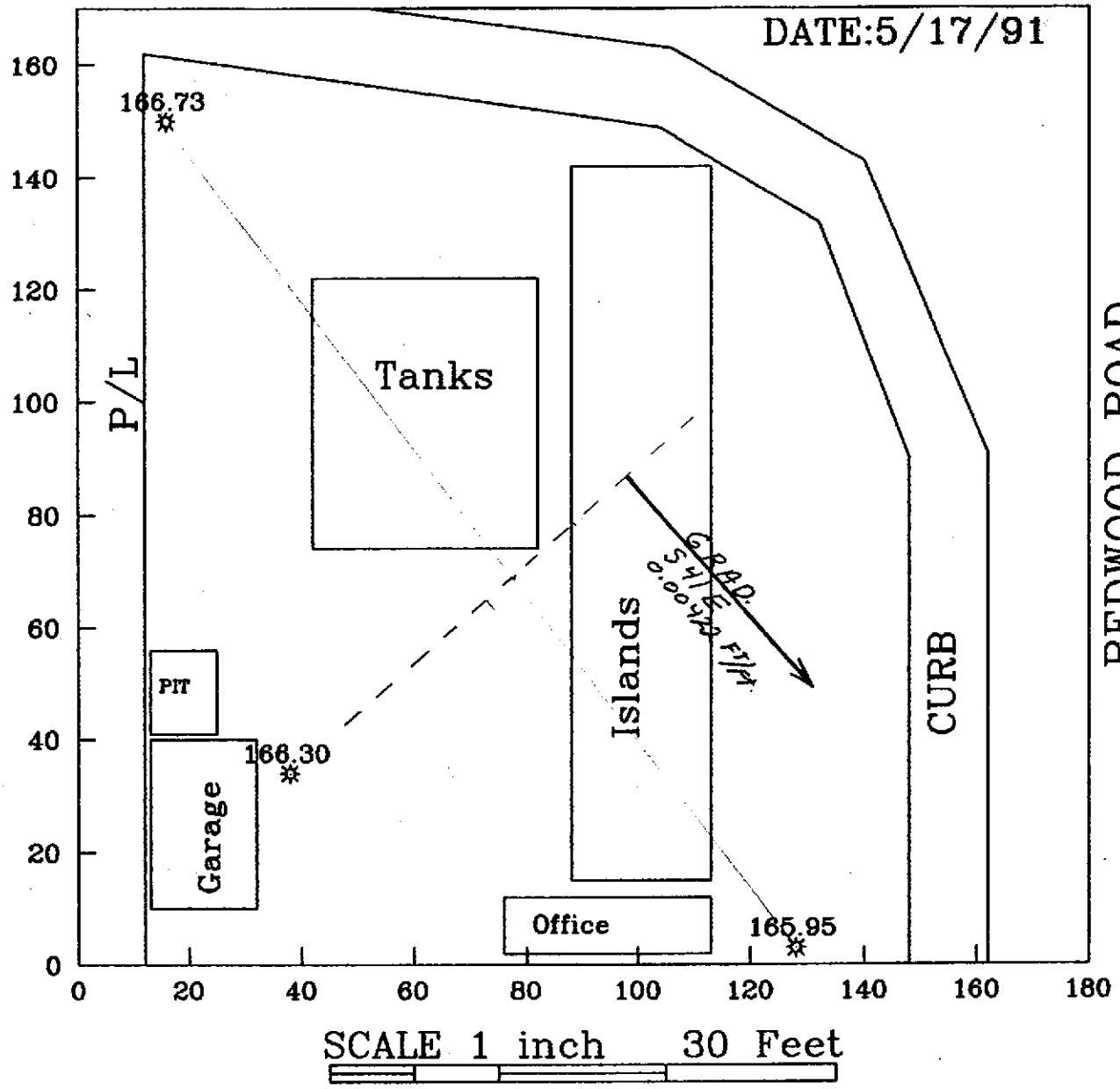
John Cussen
President



Richard Merriam Cal.
California Certified
Engineering Geologist #850

HYDRAULIC GRADIENT

CASTRO VALLEY BLVD.



XTRA Oil Station
Castro Valley, Ca.

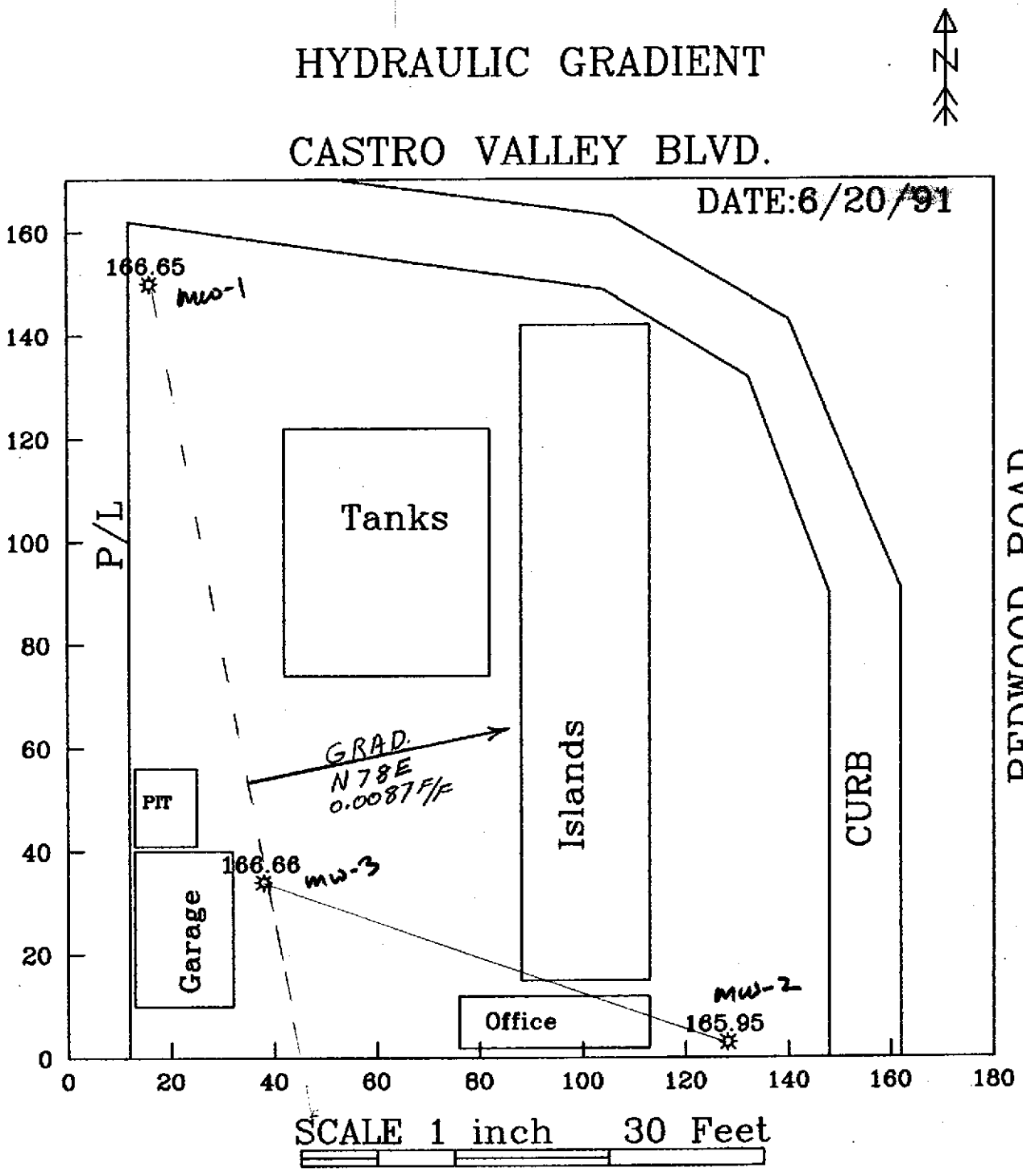
California Geophysical Group, Inc.
Engineering & Environmental Geophysics

PLOT 1

SCALE	DATE
CHK'D	

HYDRAULIC GRADIENT

CASTRO VALLEY BLVD.



XTRA Oil Station
Castro Valley, Ca.

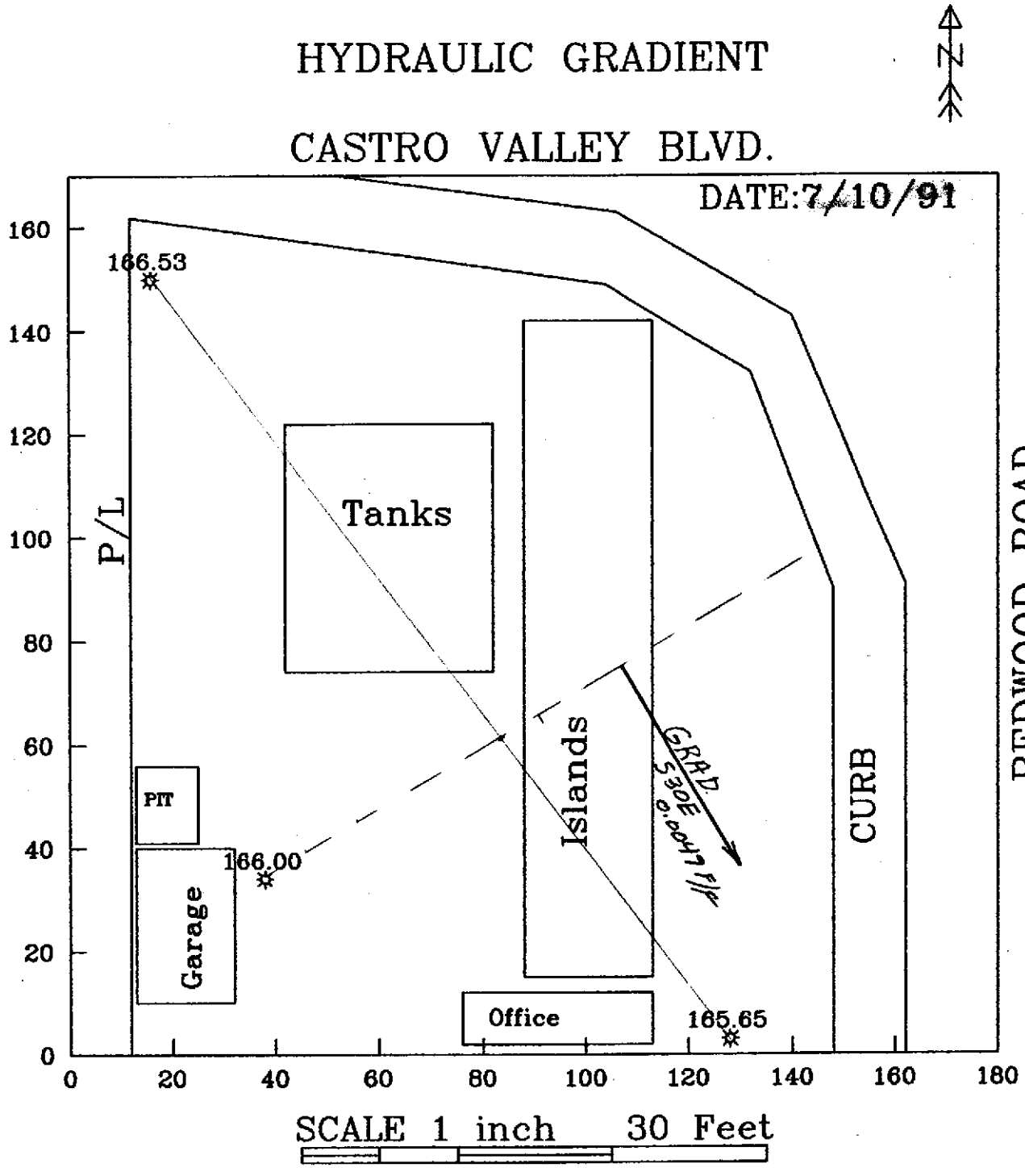
California Geophysical Group, Inc.
Engineering & Environmental Geophysics

PLOT 2

SCALE	DATE	
CHK'D		

HYDRAULIC GRADIENT

CASTRO VALLEY BLVD.



XTRA Oil Station
Castro Valley, Ca

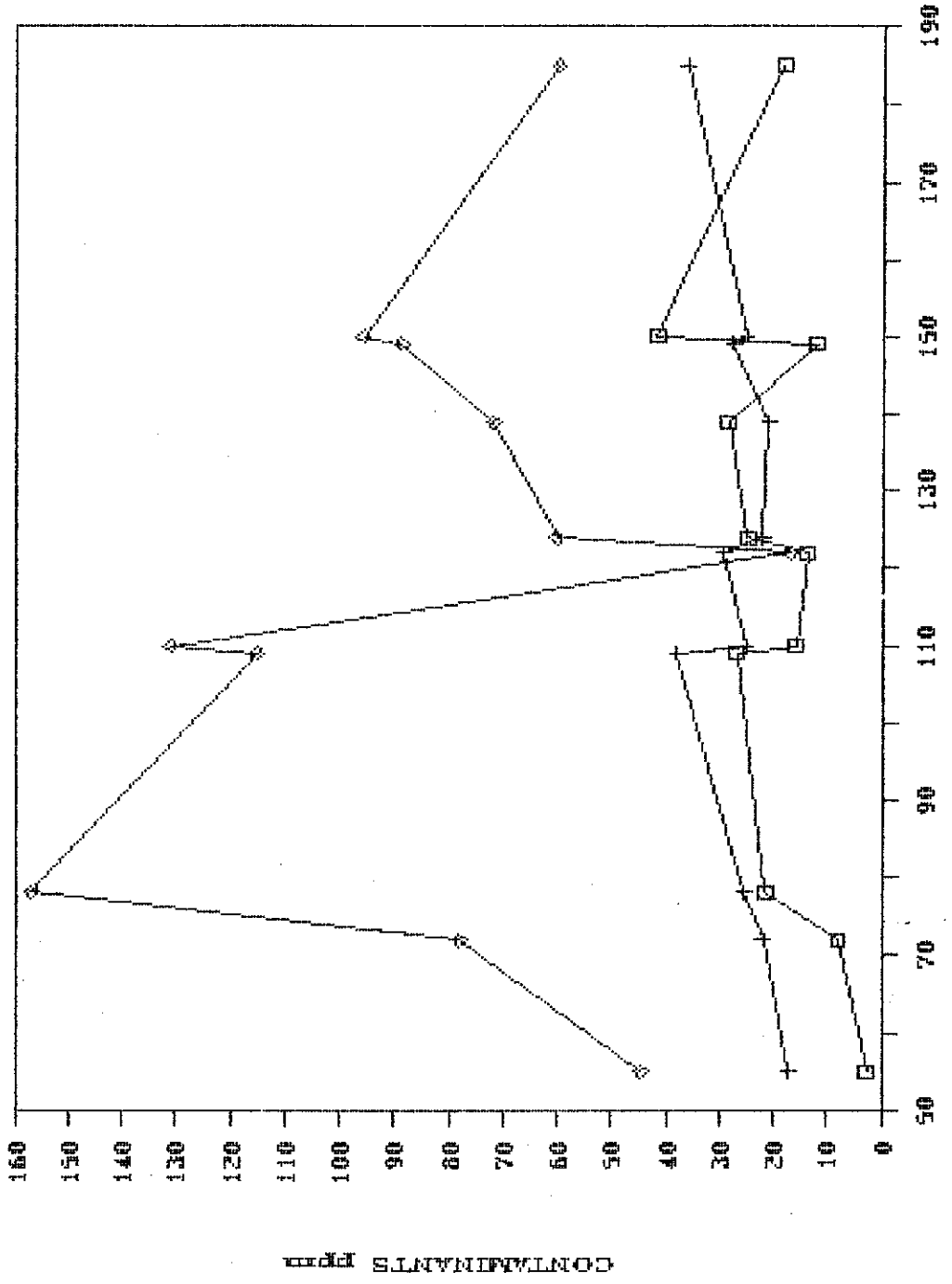
California Geophysical Group, Inc.
Engineering & Environmental Geophysics

Plot 3

SCALE	DATE	
CHK'D		

GRADIENT DIRECTION VS. CONTAMINANTS

CASTRO VALLEY STATION

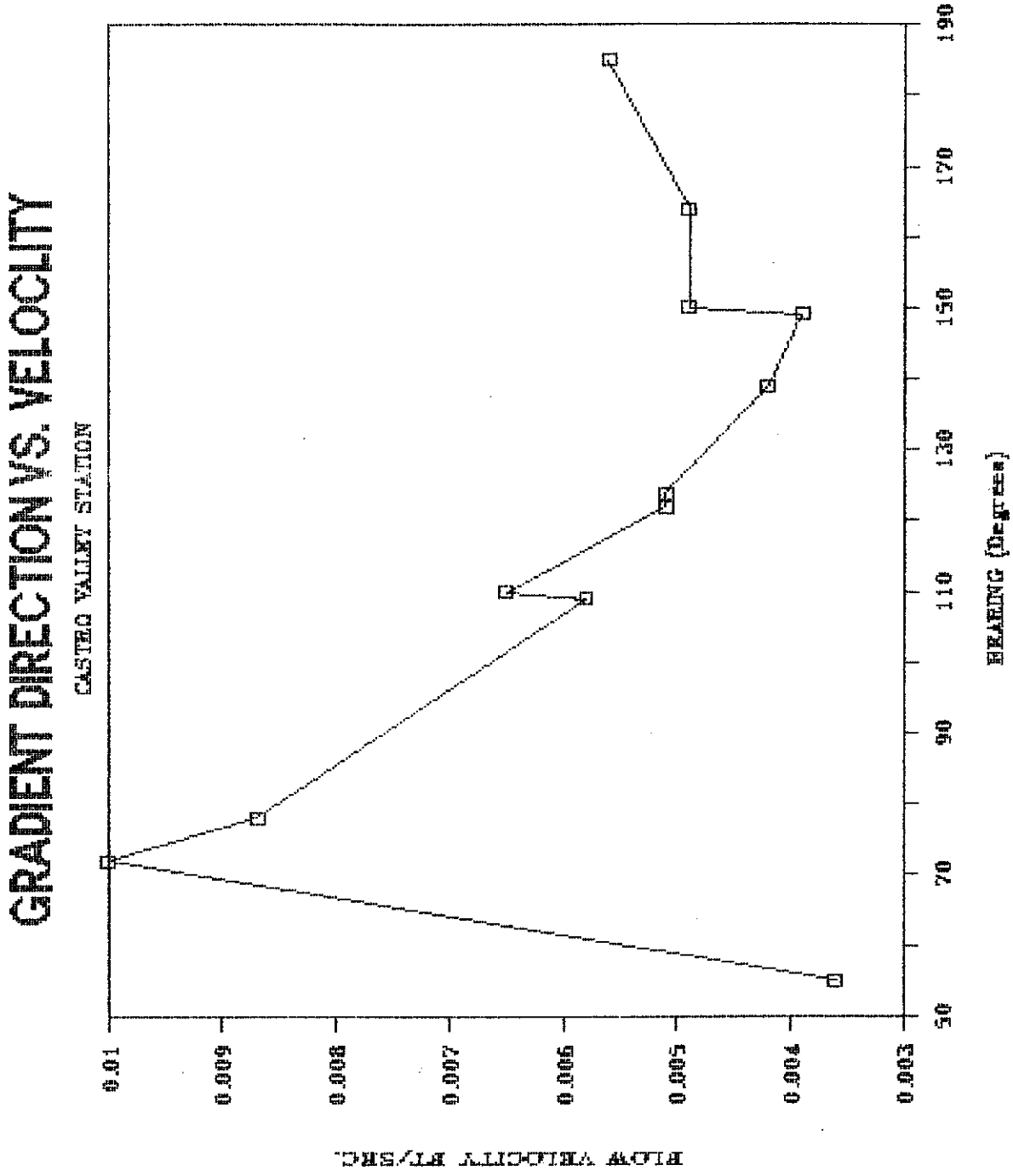


XTRA Oil Station
Castro Valley, Ca.

California Geophysical Group, Inc.
Engineering & Environmental Geophysics

PLOT 5

SCALE	DATE	
CHK'D		



XTRA Oil Station
Castro Valley, Ca.

California Geophysical Group, Inc.
Engineering & Environmental Geophysics

PLOT 4

SCALE	DATE	
CHK'D		

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Xtra Oil Company	Client Project ID:	3495 Castro Valley Blvd.	Sampled:	Jun 20, 1991
2307 Pacific Avenue	Matrix Descript:	Water	Received:	Jun 20, 1991
Alameda, CA 94501	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jun 24, 1991
Attention: Keith Simas	First Sample #:	106-3344 B-C	Reported:	Jul 2, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
106-3344	MW-1	76,000	4,700	7,100	1,500	9,800
106-3345	MW-2	87,000	8,100	8,400	1,100	8,900
106-3346	MW-3	920,000	39,000	49,000	13,000	69,000
106-3347	Travel Blank	N.D.	N.D.	N.D.	N.D.	N.D.
Detection Limits:		**30**	**0.30**	**0.30**	**0.30**	**0.30**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maile McBirney Springer
Project Manager

1063344.XXX <1>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Xtra Oil Company	Client Project ID:	3495 Castro Valley Blvd.	Sampled:	Jun 20, 1991
2307 Pacific Avenue	Matrix Descript:	Water	Received:	Jun 20, 1991
Alameda, CA 94501	Analysis Method:	EPA 3510/8015	Extracted:	Jun 24, 1991
Attention: Keith Simas	First Sample #:	106-3344 A	Analyzed:	Jun 27, 1991
			Reported:	Jul 2, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons µg/L (ppb)
106-3344	MW-1	42,000
106-3345	MW-2	69,000
106-3346	MW-3	210,000

Detection Limits:	50

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Malle McBirney Springer
Project Manager

1063344.XXX <2>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Xtra Oil Company
2307 Pacific Avenue
Alameda, CA 94501
Attention: Keith Simas

Client Project ID: 3495 Castro Valley Blvd.

QC Sample Group: 1063344-7

Reported: Jul 2, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Nuygen	M. Nuygen	M. Nuygen	M. Nuygen
Reporting Units:	ng	ng	ng	ng
Date Analyzed:	Jun 24, 1991	Jun 24, 1991	Jun 24, 1991	Jun 24, 1991
QC Sample #:	GBLK062491	GBLK062491	GBLK062491	GBLK062491
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	100	100	100	300
Conc. Matrix Spike:	94	94	98	280
Matrix Spike % Recovery:	94	94	98	93
Conc. Matrix Spike Dup.:	90	91	98	280
Matrix Spike Duplicate % Recovery:	90	91	98	93
Relative % Difference:	4.3	3.2	0.0	0.0

SEQUOIA ANALYTICAL

Maile McBirney Springer
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Xtra Oil Company
2307 Pacific Avenue
Alameda, CA 94501
Attention: Keith Simas

Client Project ID: 3495 Castro Valley Blvd.

QC Sample Group: 1063344-46

Reported: Jul 2, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel

Method:	EPA 8015
Analyst:	R. Lee
Reporting Units:	ng
Date Analyzed:	Jun 26, 1991
QC Sample #:	DBLK062491

Sample Conc.:	N.D.
Spike Conc. Added:	900
Conc. Matrix Spike:	760
Matrix Spike % Recovery:	84
Conc. Matrix Spike Dup.:	710
Matrix Spike Duplicate % Recovery:	79
Relative % Difference:	6.8

SEQUOIA ANALYTICAL

Malle McBirney Springer
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

COPY

CHAIN OF CUSTODY REPORT

CLIENT: XTRA OIL

ADDRESS: 3495 CASTRO VALLEY BLVD

PHONE: 415 Y65 9503

PROJECT NAME/SITE: SHELL GAS STATION

SAMPLER: CRAIG LEE

DATE: 6/20/91

REPORT TO:

BILLING TO:

TURNAROUND TIME: 8 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY

PO#/BILLING REFERENCE:

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	ANALYSIS REQUESTED: TPH(G) BTEX	ANALYSIS REQUESTED: TPH(D) DIESEL	REMARKS	SAMPLE NUMBER
MW1	MONITORING WATER	3 2	VIALS	1515P 6/20/91	X			1063344 (A-C)
MW1	"	1	W.M. AMB	1507 6/20/91		X		
MW3	"	3 2	VIALS	2330P 6/20/91	X			1063346
MW3	"	1	W.M. AMB	2301 6/20/91		X		
MW2	"	3 2	VIALS	2457 6/20/91	X			1063345
MW2	"	1	W.M. AMB	2457 6/20/91		X		
								1063347 (T.B)

RELINQUISHED BY: Craig C Lee — DATE: 6/20/91 — TIME: 427PM

RECEIVED BY: Sophia Patigo — DATE: 6/20 — TIME: 4:27

RELINQUISHED BY: — DATE — TIME:

RECEIVED BY: — DATE — TIME:

RELINQUISHED BY: — DATE — TIME:

RECEIVED IN LAB BY:

TRAVEL TIME: 1HR 15 MIN

ON SITE TIME: 2HRS

OTHER:

	YES	NO
WERE SAMPLES:		
PRESERVED ?		
IN GOOD CONDITION?		

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Xtra Oil Company	Client Project ID:	Castro Valley Shell	Sampled:	Jul 10, 1991
2307 Pacific Avenue	Matrix Descript:	Water	Received:	Jul 10, 1991
Alameda, CA 94501	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jul 11, 1991
Attention: Ted Simas	First Sample #:	107-1348	Reported:	Jul 22, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
107-1348	Well 1	100,000	11,000	14,000	2,300	17,000
107-1349	Well 2	51,000	9,900	7,700	1,200	7,500
107-1350	Well 3	450,000	46,000	29,000	3,500	21,000
Detection Limits:		**30**	**0.30**	**0.30**	**0.30**	**0.30**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maile McBirney Springer
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Xtra Oil Company	Client Project ID:	Castro Valley Shell	Sampled: Jul 10, 1991
2307 Pacific Avenue	Matrix Descript:	Water	Received: Jul 10, 1991
Alameda, CA 94501	Analysis Method:	EPA 3510/8015	Extracted: Jul 12, 1991
Attention: Ted Simas	First Sample #:	107-1348	Analyzed: 7/12, 7/15/91
			Reported: Jul 22, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons µg/L (ppb)
107-1348	Well 1	49,000
107-1349	Well 2	100,000
107-1350	Well 3	270,000

Detection Limits:	50

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maile McBirney Springer
Project Manager

1071348.XXX <2>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Xtra Oil Company
2307 Pacific Avenue
Alameda, CA 94501
Attention: Ted Simas

Client Project ID: Castro Valley Shell

Q.C. Sample Group: 1071348-1350

Reported:

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015
Analyst:	L. Laikhtman	L. Laikhtman	L. Laikhtman	L. Laikhtman	R. Lee
Reporting Units:	ng	ng	ng	ng	ng
Date Analyzed:	Jul 11, 1991	Jul 11, 1991	Jul 11, 1991	Jul 11, 1991	Jul 12, 1991
QC Sample #:	GBLK071191	GBLK071191	GBLK071191	GBLK071191	DBLK071291
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	100	100	100	300	950
Conc. Matrix Spike:	100	100	99	300	770
Matrix Spike % Recovery:	100	100	99	100	81
Conc. Matrix Spike Dup.:	100	100	110	310	750
Matrix Spike Duplicate % Recovery:	100	100	110	100	79
Relative % Difference:	0.0	0.0	11	3.3	2.6

SEQUOIA ANALYTICAL

Maile McBirney Springer
Project Manager

$$\%\ \text{Recovery:} = \frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} = \frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$$

COPY

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SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

CHAIN OF CUSTODY REPORT

CLIENT: XTRA OIL

ADDRESS:

PHONE:

PROJECT NAME/SITE: CASTRO VALLEY SHELL

SAMPLER: JOE JENCKS & BEAU SULLIVAN

DATE: 7/10/91

REPORT TO: XTRA OIL

BILLING TO:

TURNAROUND TIME: 0 HR. | 24 HR. | 48 HR. | 72 HR. | 5 DAY | 10 DAY | 15 DAY (X)

PO#/BILLING REFERENCE:

SAMPLE ID# / STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	ANALYSIS REQUESTED: TPH GAS	TPH DIESEL	BTEX	REMARKS	SAMPLE NUMBER
	#1 WELL WATER	1	1L AMBER	10:00 AM 7/10/91					1071348 (C)
	" WATER	2	VOAS	10:00 AM 7/10/91					↓ (A-B)
	#2 WELL WATER	1	1L AMBER	10:35 AM 7/10/91					1071349 (C)
	" WATER	2	VOAS	10:35 AM 7/10/91					↓ (A-B)
	#3 WELL WATER	1	1L AMBER	10:25 AM 7/10/91					1071350 (C)
	" WATER	2	VOAS	10:25 AM 7/10/91					↓ (A-B)

RELINQUISHED BY: Beau Sullivan — DATE: 7/10/91 — TIME: 1:25 PM

RELINQUISHED BY: — DATE: — TIME:

RELINQUISHED BY: — DATE: — TIME:

RECEIVED BY:

RECEIVED BY:

RECEIVED IN LAB BY: 7/10 1325

TRAVEL TIME: 120 min

ON SITE TIME: 170 min

OTHER: BOTH SITES COMB

	YES	NO
WERE SAMPLES: PRESERVED ?		
IN GOOD CONDITION?		

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Xtra Oil Company	Client Project ID:	Castro Valley	Sampled:	May 17, 1991
2307 Pacific Avenue	Matrix Descript:	Water	Received:	May 17, 1991
Alameda, CA 94501	Analysis Method:	EPA 5030/8015/8020	Analyzed:	May 20, 1991
Attention: Kerti Simas	First Sample #:	105-2648 A-B	Reported:	Jun 5, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
105-2648	#1	72,000	7,700	9,900	N.D.	11,000
Detection Limits:		**60,000**	**600**	**600**	**600**	**600**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Maile McBirney Springer
Project Manager

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Xtra Oil Company	Client Project ID:	Castro Valley	Sampled: May 17, 1991
2307 Pacific Avenue	Matrix Descript:	Water	Received: May 17, 1991
Alameda, CA 94501	Analysis Method:	EPA 5030/8015/8020	Analyzed: May 20, 1991
Attention: Kertl Simas	First Sample #:	105-2649 A-B	Reported: Jun 5, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
105-2649	#2	62,000	5,900	6,300	1,200	9,000
105-2650	#3	170,000	32,000	22,000	2,200	18,000
105-2651	Travel Blank	N.D.	N.D.	N.D.	N.D.	N.D.
Detection Limits:		**30**	**0.30**	**0.30**	**0.30**	**0.30**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maile McBirney Springer
Project Manager

1052648.XXX <2>

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Xtra Oil Company	Client Project ID:	Castro Valley	Sampled: May 17, 1991
2307 Pacific Avenue	Matrix Descript:	Water	Received: May 17, 1991
Alameda, CA 94501	Analysis Method:	EPA 3510/8015	Extracted: May 23, 1991
Attention: Kertl Simas	First Sample #:	105-2648 C	Analyzed: May 24, 1991
			Reported: Jun 5, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons µg/L (ppb)
105-2648	#1	26,000
105-2649	#2	33,000
105-2650	#3	30,000

Detection Limits:	**50**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

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Malle McBirney Springer
Project Manager

1052648.XXX <3>

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Xtra Oil Company
2307 Pacific Avenue
Alameda, CA 94501
Attention: Kertl Simas

Client Project ID: Castro Valley

QC Sample Group: 1052648-0

Reported: Jun 5, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8015	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Lee	S. Hoffmann	S. Hoffmann	S. Hoffmann	S. Hoffmann
Reporting Units:	ng	ng	ng	ng	ng
Date Analyzed:	May 24, 1991	May 20, 1991	May 20, 1991	May 20, 1991	May 20, 1991
QC Sample #:	DBLK052391-A	GBLK052091	GBLK052091	GBLK052091	GBLK052091
Instr. I.D.:		GCHP-2	GCHP-2	GCHP-2	GCHP-2
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	900	100	100	100	300
Conc. Matrix Spike:	600	110	110	110	320
Matrix Spike % Recovery:	67	110	110	110	110
Conc. Matrix Spike Dup.:	770	110	110	110	320
Matrix Spike Duplicate % Recovery:	85	110	110	110	110
Relative % Difference:	25	0.0	0.0	0.0	0.0

SEQUOIA ANALYTICAL

Malle McBirney Springer
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

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Xtra Oil Company
2307 Pacific Avenue
Alameda, CA 94501
Attention: Kertl Simas

Client Project ID: Castro Valley

QC Sample Group: 105-2651

Reported: Jun 5, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	S. Hoffmann	S. Hoffmann	S. Hoffmann	S. Hoffmann
Reporting Units:	ng	ng	ng	ng
Date Analyzed:	May 20, 1991	May 20, 1991	May 20, 1991	May 20, 1991
QC Sample #:	GBLK052091	GBLK052091	GBLK052091	GBLK052091
Instr. I.D.:	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	100	100	100	300
Conc. Matrix Spike:	100	100	100	300
Matrix Spike % Recovery:	100	100	100	100
Conc. Matrix Spike Dup.:	100	100	100	300
Matrix Spike Duplicate % Recovery:	100	100	100	100
Relative % Difference:	0.0	0.0	0.0	0.0

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Maile McBirney Springer
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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COPY

CHAIN OF CUSTODY REPORT

CLIENT: XTRA OIL

ADDRESS:

PHONE:

PROJECT NAME/SITE:

SAMPLER: KEVIN VAN SLAMBROOK
JOE JENCKS

DATE: 05.17.91

REPORT TO:

BILLING TO:

TURNAROUND TIME:

				8 HR.	
24 HR.		48 HR.		72 HR.	
5 DAY		10 DAY		15 DAY	

PO#/BILLING REFERENCE:

SAMPLE ID#/ STATION	SAMPLE DESCRIPTION	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	ANALYSIS REQUESTED	REMARKS	SAMPLE NUMBER
	H_2O	6	Vial	05.17.91			105264[illegible]-5[illegible] A/
	↓			↓			
	↓	3	Amber	↓			105264[illegible]-5[illegible] C
	blank	1					105265[illegible]

RELINQUISHED BY: Kevin VanSlambrook — DATE: 05.17.91 — TIME:

RELINQUISHED BY: — DATE: — TIME:

RELINQUISHED BY: — DATE: 5/17 — TIME: 3:40

RECEIVED BY:

RECEIVED BY:

RECEIVED IN LAB BY: K. Will

TRAVEL TIME: 100 MINUTES

ON SITE TIME: 70 MINUTES

OTHER:

	YES	NO
WERE SAMPLES:		
PRESERVED ?		
IN GOOD CONDITION?		