

W. A. CRAIG, INC.

Environmental Consulting and Contracting

P. O. Box 448

Napa, California 94559-0448

Contractor and Hazardous Substances License #455752

Cal/OSHA Statewide Annual Excavation Permit #559351

(800) 522-7244

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Fax: (707) 252-33852

July 17, 1995

Mr. Dennis Buran
Glascock Street Properties
436 14th Street, Room 305
Oakland, CA 94612
(510) 444-1391
(510) 444-1394 FAX

PROJECT NO: 3406D

**SUBJECT: SECOND QUARTER GROUNDWATER SAMPLING RESULTS FOR
2901 GLASCOCK STREET, OAKLAND, CALIFORNIA.**

Dear Mr. Buran:

Enclosed is a copy of the second quarter groundwater monitoring results from the May 15, 1995 sampling event located at 2601 Solano Avenue, Napa, California. Seven wells were sampled and analyzed for TPH-D, TPH-G, and BTEX. The laboratory results revealed elevated levels of TPH-D (310 to 5,100 ppb) in MW-1, MW-2, MW-3, MW-5, and MW-6. Low levels of TPH-G (60 to 310 ppb) were found in MW-1, MW-2, MW-3, and MW-6. Low levels of benzene (2.3 to 7.9 ppb) were found in MW-1, MW-2, and MW-6.

The next quarterly sampling is scheduled for August 15, 1995.

If you have any questions in regard to this report, please call me at 707-252-3353.

Sincerely,

W. A. CRAIG, INC.


W. A. Craig, II

President, R.E.A. 01414

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SECOND QUARTERLY MONITORING REPORT

Located at:

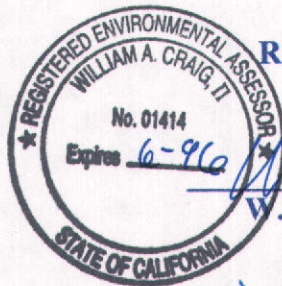
**2893 GASCOCK AVENUE
OAKLAND, CALIFORNIA**

Prepared for:

**MR. DENNIS BURAN
GLASCOCK STREET PROPERTIES
436 14TH STREET, ROOM 305
OAKLAND, CA 94612**

By:

RAFAEL L. GALLARDO



W. A. Craig II, R.E.A. 01414

Franklin J. Goldman
Frank Goldman, R.G. 5557



Rafael L. Gallardo
Rafael L. Gallardo, Project Geologist

W. A. Craig, Inc. Job No. 3406

JUNE 7, 1995

ENVIRONMENTAL
PROTECTION
96 JAN 23 PM 2:27

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1.0 INTRODUCTION

1.1 Site location and description

Glascock Street Properties is located on the southside of Glascock Street, Oakland, California (see attached Figure 1). The site is relatively flat and contains a large building that covers most of the property. The Oakland Estuary is adjacent to the south side of the property. The western half of the existing building is currently leased to the Stan Flowers Company (see attached Figure 2).

1.2 Site History

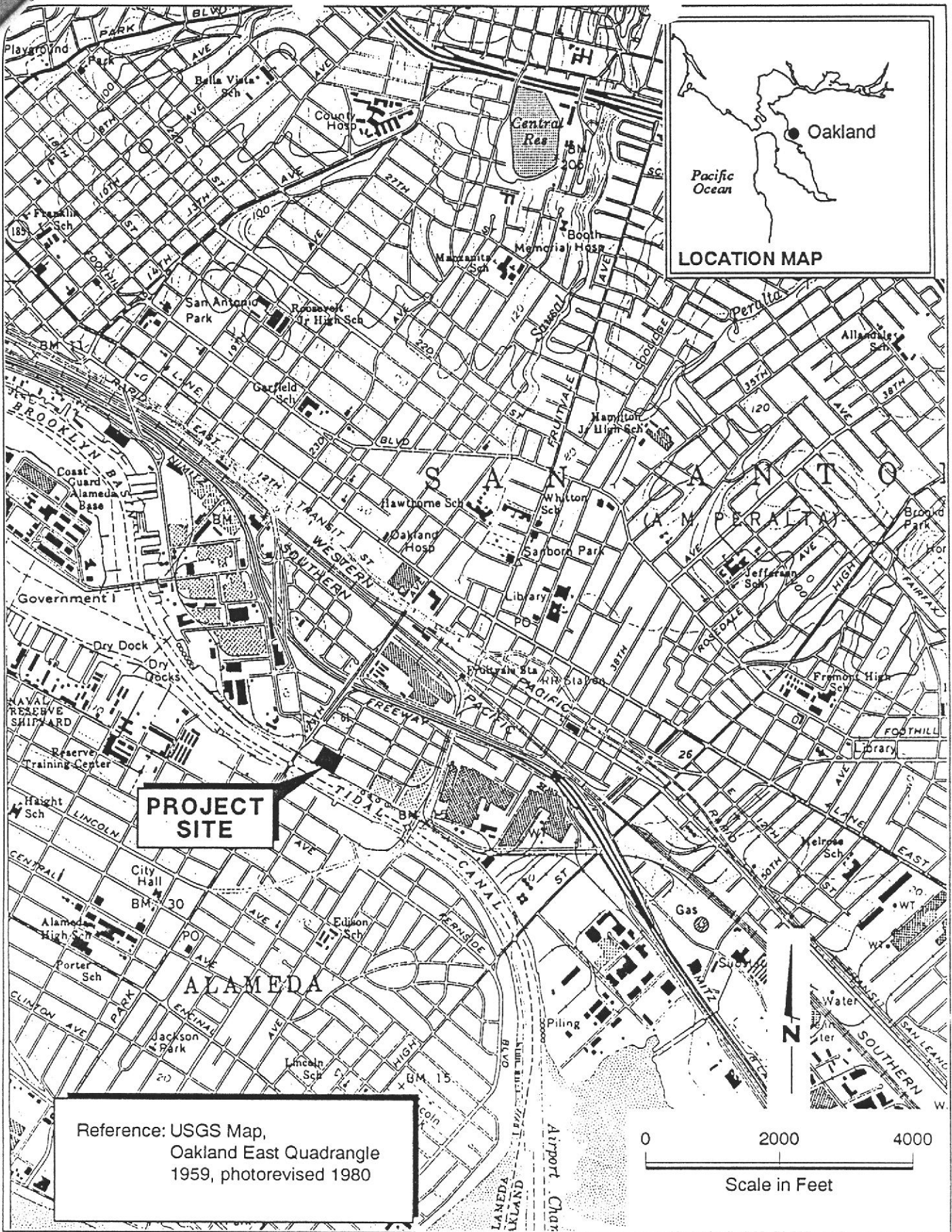
The warehouse was built in the 1920's. The property was used by Oliver United Filters for the manufacturing of water filters for oil field applications.

In February of 1993, two underground fuel oil storage tanks were removed from the warehouse. The tanks had been out of operation for approximately thirty years.

On February 23, 1993, Pacific Rim Environmental removed and disposed of a 4,000 gallon underground fuel tank (Tank No. 1). The tank showed signs of corrosion but was free of punctures. A soil sample was collected from each end of the excavation at a depth of eighteen inches below the bottom of the tank excavation. The analytical results revealed 1,400 ppm of total petroleum hydrocabons as diesel (TPH-D) and 1 ppm of total petroleum hydrocabons as gasoline (TPH-G).

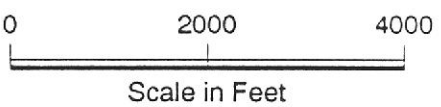
On February 26, 1993, Pacific Rim Environmental removed and disposed of a 20,000 gallon underground fuel tank (Tank No. 2). The tank showed signs of corrosion but was intact. Four soil samples were collected from the excavation pit and tested for Oil and Grease (O&G), TPH-D, TPH-G, and BTEX. The analytical results revealed O&G levels between 390 and 1,900 ppm, TPH-D levels between 1,200 to 3,800 ppm, and minor amounts of Ethylbenzene and Xylenes.

Pacific Rim Environmental subsequently performed overexcavation remediation at both tank site locations. However, the extent of the contamination was never defined.



PROJECT SITE

Reference: USGS Map,
Oakland East Quadrangle
1959, photorevised 1980



W. A. CRAIG, INC.
INDUSTRIAL AND ENVIRONMENTAL CONTRACTOR

Site Location Map
2901 Glascock Street
Oakland, California

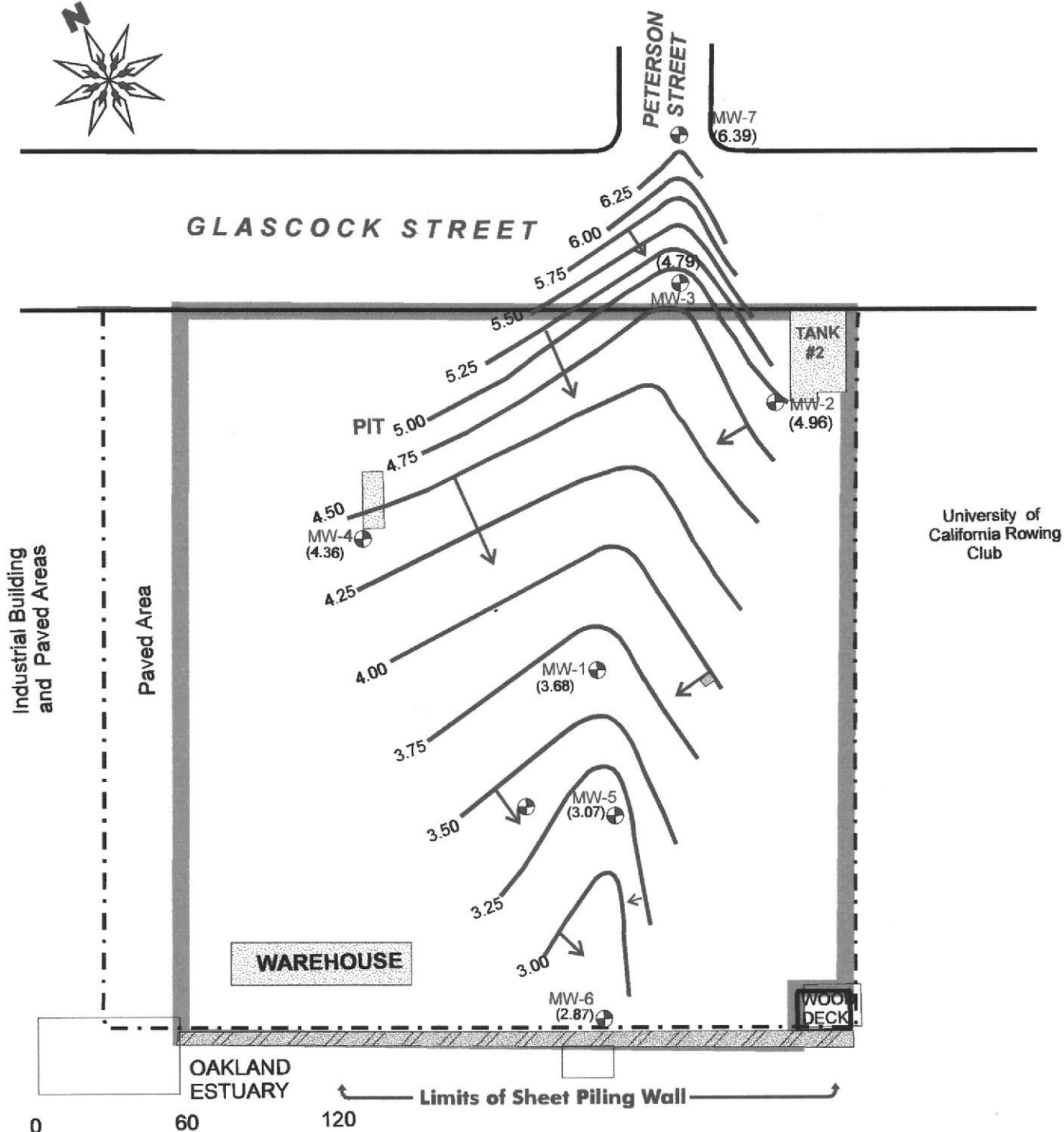
PLATE
1

JOB NUMBER
3406

REVIEWED BY
JAC

DATE
8/94

REVISED DATE



Approximate Scale In Feet

FIGURE 2

LEGEND

 GROUNDWATER MONITORING WELL

 GROUNDWATER ELEVATION CONTOUR

W.A. CRAIG, INC.

P.O. BOX 448, NAPA, CALIFORNIA 94559-0448

2901 GLASCOCK STREET
OAKLAND, CALIFORNIA
JOB # 3518

GROUNDWATER GRADIENT MAP

MAY 15, 1995

1.3 GEOLOGY AND HYDROGEOLOGY

Geology

The site is located on the East Bay Plain adjacent to the Tidal Canal and across from Alameda and the San Francisco Bay. The property is relatively flat.

The site is underlain by Undivided Quaternary Deposits (Qu). The predominant formation is the Temescal Formation consisting of contemporaneous alluvial units of different origin, lithology, and physical properties. The material ranges from irregularly bedded clay, silt, sand and gravel to lenses of clay, silt, sand, and gravel with Claremont Chart.

The Hayward Fault is approximately 3.25 miles northeast of the site and is an active historic fault. The Hayward Fault is the only active fault in the Oakland East Quadrangle.

Hydrogeology

The site is located within the East Bay Plain which makes up the ground water reservoir in the area. The water bearing capacity varies within the area due to the juxtaposed positions of the various types of soils and strata encountered underneath the East Bay Plain.

In general the water bearing capacities of the Younger Alluvium range from moderately permeable to low permeable soils. Below the Younger Alluvium at a depth of approximately 70 feet lies the Older Alluvium, which yields large to small quantities of water.

References:

Radbruch, Dorothy H., Areal and Engineering Geology of the Oakland West Quadrangle, California, Map I-239, 1957.

Bulletin No. 118 California's Ground water.
State of California. Department of Water Resources, September 1975.

Bulletin 118-80, Ground Water Basins in California.
State of California. Department of Water Resources, January 1980.

2.0 GROUNDWATER SAMPLING

2.1 GROUNDWATER ELEVATION MEASUREMENTS

The groundwater elevation was measured for monitoring wells MW-1 through MW-7 on May 15, 1995. The static groundwater elevation was recorded on a Sample Event Data Sheets for the May quarterly sampling and are presented in **Appendix A**.

The groundwater flow direction was calculated from the May 16, 1995 reading. Groundwater elevation data is shown on **Figure 2**. The groundwater flow direction is towards the south. The hydraulic gradient was .009ft/ft. The water level dropped approximately four feet since the last measurement taken in January of 1995.

Table 1 contains the monitor well elevation, static water level and groundwater surface elevation.

2.2 MONITORING WELL SAMPLING

Monitoring Wells MW-1 through MW-7 were sampled on May 15, 1995. Each well was sampled after purging at least three casing volumes and allowing the water level to recover to at least 80% of the original, static level. Temperature, turbidity, electrical conductivity, and pH were monitored during each purging. The data was used to verify that water had been removed from well casing storage and that well water was representative of the aquifer. The sampling event data sheets are presented in **Appendix A**.

Water samples were collected using disposable Teflon bailers. Each water sample was contained in three 40-milliliter VOA vials and one 1-liter amber bottle. The samples were labeled and stored on ice until delivered, under chain-of-custody procedures, to McCampbell Analytical, Inc. of Pacheco, California, a State-Certified analytical laboratory. The Samples were analyzed for total petroleum hydrocarbons in the diesel range (TPH-D) using GCFID 3550/EPA modified Method 8015, total petroleum hydrocarbons in the gasoline range (TPH-G) and benzene, toluene, ethylbenzene, and xylenes (BTEX) using GCFID 5030/EPA Method 8015/8020.

TABLE 1
Groundwater Elevation Data
May 15, 1995
2901 Glascock Street, Oakland, California

WELL	WELL DIAMETER (Inches)	TOP OF CASING *(Feet)	DEPTH TO WATER (Feet)	STATIC WATER LEVEL (Feet)
MW-1	2	10.76	7.08	3.68
MW-2	2	10.62	5.66	4.96
MW-3	2	9.87	5.08	4.79
MW-4	2	10.64	6.28	4.36
MW-5	2	10.61	7.54	3.07
MW-6	2	10.27	7.46	2.81
MW-7	2	9.85	3.46	6.39

* Datum point, corner of Glascock and Peterson Streets, city of Oakland = 10.296 Mean Sea Level, (MSL).

3.0 ANALYTICAL RESULTS

3.1 MONITORING WELL SAMPLING ANALYTICAL RESULTS

The analytical results of the May 1995 sampling and historical results of previous sampling rounds can be found in **Table 2**. The laboratory analytical data sheets and chain-of-custody records for the May sampling are included as Appendix A. The detection limits for the TPH-G and TPH-D analyses are 50 ug/L and for the BTEX analysis 0.5 ug/L.

The analytical results revealed elevated levels of TPH-D (310 to 5,100 ppb) in monitoring wells MW-1, MW-2, MW-3, MW-5, and MW-6. MW-4, and MW-7 were non-detectable. Elevated levels of TPH-G (60 to 310 ppb) were found in MW-1, MW-2, MW-3, MW-6, and MW-7. MW-4 and MW-5 were non-detectable. Low levels of Benzene (2.3 to 7.9 ppb) were found in MW-1, MW-2, and MW-6. MW-3, MW-4, MW-5, and MW-7 were non-detectable.

TABLE 2
Historical and Current sampling results for Glascock Site

WELL NUMBER	SAMPLE DATE	TPH-Diesel ug/L	TPH-Gas ug/L	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Xylenes ug/L
MW-1	10/06/94	NT	NT	NT	NT	NT	NT
	01/20/95	1,900	670	5.3	ND	ND	1.1
	05/15/95	3,400	290	7.9	ND	ND	1.4
MW-2	10/06/94	NT	NT	NT	NT	NT	NT
	01/20/95	4,000	520	2.2	1.9	ND	1.3
	05/15/95	5,100	310	2.3	1.9	ND	1.4
MW-3	10/06/94	320	NT	ND	ND	ND	ND
	01/20/95	460	86	ND	ND	ND	ND
	05/15/95	310	60	ND	ND	ND	ND
MW-4	10/06/94	ND	NT	ND	ND	ND	ND
	01/20/95	ND	ND	ND	ND	ND	ND
	05/15/95	ND	ND	ND	ND	ND	ND
MW-5	05/15/95	490	ND	ND	ND	ND	ND
MW-6	05/15/95	1,100	120	5.6	0.88	ND	2.1
MW-7	05/15/95	ND	110	ND	ND	ND	ND
*California Department of Health Services primary maximum contamination level for drinking water.		None Listed	None Listed	1.0	1000	680	1750

* Marshall, J.B., 1989, A Compilation of Water Quality Goals, Staff Report of the California Regional Water Quality Control Board, Central Valley Region, 15 p.

ND = Non-detectable levels
NT = Not Tested

4.0 RECOMMENDATIONS

Analytical results for monitoring wells MW-1 and MW-2 revealed increased levels of TPH-D and Benzene. Both wells also revealed a large decrease in TPH-G. MW-4 has displayed non-detectable levels for three consecutive quarters. MW-5, MW-6, and MW-7 were sampled for the first time. MW-5 and MW-6 revealed elevated levels of TPH-D (490, and 1,100 ppb respectively). MW-6 revealed elevated levels of TPH-G and Benzene. MW-7 was non-detectable for TPH-D and Benzene. The increasing levels of TPH-D in MW-1 and MW-2 may indicate the presence of a hidden tank. W.A. Craig, Inc. recommends continued monitoring for another quarter. In addition, we recommend that the monitoring wells be measured hourly for one day. By performing this task, we will be able to determine if there is a tidal connection with the groundwater beneath the site.

5.0 SCHEDULE OF ACTIVITIES FOR NEXT QUARTER

5.1 GROUNDWATER ELEVATION MEASUREMENT

The on-site wells will be sounded and the groundwater level will be measured for each quarter. Water samples will again be collected along with water level measurements. The direction of groundwater flow and the hydraulic gradient will be calculated.

5.2 QUARTERLY SAMPLING

The next quarterly sampling event will occur the second week in August, 1995. The quarterly report will present the results of the August sampling.

6.0 LIMITATIONS

This report has been prepared in accordance with generally accepted environmental, geological and engineering practices. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analysis, conclusions and recommendations contained in this report are based upon site conditions as they existed at the time of the investigation and they are subject to change.

The conclusions presented in this report are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. W.A. Craig, Inc., recognizes that the limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs, or requirements of other state agencies, or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of said user.

APPENDIX A

ANALYTICAL DATA SHEETS
AND
CHAIN-OF-CUSTODY RECORD
FOR MONITORING WELL SAMPLING
May 15, 1995

W. A. CRAIG, INC.

CHAIN-OF-CUSTODY RECORD

Z4125-AWACX 368

CR# 6483 18700.00

PROJECT NO.		PROJECT NAME		MATRIX: Soil, Water, Air, Sludge, Other	ANALYSIS							REMARKS	LABORATORY I. D. NUMBER
PURCHASE ORDER NO.		SIGNATURE OF SAMPLER			TPHgasoline (8015)	BTEX (602/8020)	TPHdiesel (8015)	TPHg & BTEX	Preserved?				
DATE	TIME	W. A. CRAIG, INC.'S SAMPLE IDENTIFICATION											
1995													
5/15	10:50	MW-7		W			✓	✓		✓		52468	
"	11:05	MW-3		W			✓	✓		✓		52469	
"	12:55	MW-2		W			✓	✓		✓		52470	
"	13:50	MW-1		W			✓	✓		✓		52471	
"	14:25	MW-5		W			✓	✓		✓		52472	
"	15:15	MW-6		W			✓	✓		✓		52473	
"	16:00	MW-4		W			✓	✓		✓		52474	
				ICE/✓ GOOD CONDITION ✓ HEAD SPACE ABSENT ✓ PRESERVATIVE ✓ APPROPRIATE CONTAINERS ✓ VOALS & GINT ✓									

RELINQUISHED BY (Signature): *Russell Beatty*

DATE/TIME: 5/15/95 15:05

RECEIVED BY (Signature): *[Signature]*

LABORATORY: *McCorpbeel Analytical*

PLEASE SEND RESULTS TO:
W. A. CRAIG, INC.
 P.O. BOX 448
 NAPA, CA 94559-0448
 (707) 252-3353

RELINQUISHED BY (Signature):

DATE/TIME:

RECEIVED BY (Signature):

TURNAROUND TIME:

RELINQUISHED BY (Signature):

DATE/TIME:

RECEIVED BY (Signature):

ATTN:

McCAMPBELL ANALYTICAL INC.

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

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

W.A. Craig, Inc. P.O. Box 448 Napa, CA 94559-0448	Client Project ID: # 3406; Glascock	Date Sampled: 05/15/95
		Date Received: 05/15/95
	Client Contact: Bill Craig	Date Extracted: 05/15-05/16/95
	Client P.O:	Date Analyzed: 05/15-05/16/95

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with 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) ⁺	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
52468	MW-7	W	110,d/e	ND	ND	ND	ND	100
52469	MW-3	W	60,f	ND	ND	ND	ND	100
52470	MW-2	W	310,b,h	2.3	1.9	ND	1.4	95
52471	MW-1	W	290,c,b	7.9	ND	ND	1.4	109
52472	MW-5	W	ND,f	ND	ND	ND	ND	102
52473	MW-6	W	120,d	5.6	0.88	ND	2.1	102
52474	MW-4	W	ND	ND	ND	ND	ND	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, soil samples in mg/kg, and all TCLP extracts in mg/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 (Stoddards solvent?); 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.

QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/15-05/16/95

Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		
	Sample	MS	MSD		MS	MSD	RPD
TPH (gas)	0.0	102.4	102.3	100	102.4	102.3	0.0
Benzene	0	9.5	9.8	10	95.0	98.0	3.1
Toluene	0	9.7	10.2	10	97.0	102.0	5.0
Ethyl Benzene	0	9.7	10.1	10	97.0	101.0	4.0
Xylenes	0	29.9	31.5	30	99.7	105.0	5.2
TPH (diesel)	0	194	195	200	97	97	0.4
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

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