

October 24, 1997

STID 3707

Mr. Tzu Ming Chen c/o Ms. Janice Chow Wo Lee Food Company 208 Jackson Street Oakland, California 94607

RE: Biannual Groundwater Monitoring Report 208 Jackson Street, Oakland, California *ACC Project No. 96-6238-001.02*

Dear Mr. Chen:

ACC Environmental Consultants, Inc., (ACC) conducted groundwater monitoring and sampling at 208 Jackson Street, Oakland, California on October 1, 1997. Biannual monitoring and sampling was requested by the Alameda County Health Care Services Agency (ACHCSA), in a letter dated August 12, 1996.

Groundwater analytical results indicate that natural attenuation processes at the site are reducing the concentration of dissolved-phase petroleum hydrocarbons. Gasoline concentrations have decreased in well MW-4 and increased in well MW-5 since the previous sampling event in March 1997. ACC recommends that you forward one copy of this groundwater monitoring report to the ACHCSA under your cover letter in a timely manner.

Mr. Thomas F. Peacock Alameda County Health Care Services Agency Department of Environmental Health 1131 Harbor Bay Parkway, 2nd Floor Alameda, CA 94502

De (I

If you have any questions regarding this report or the project, please call me at (510) 638-8400.

Sincerely,

X109

David R. DeMent, RG Senior Geologist

/drd:clm

Enclosures

Wo Lee Food Co. PROTECTION

TEL: (510) 444-7083 • (510) 834-5868 • FAX: (510) 444-946877 18 AM 9: 17

11-4-1997

ALAMEDA COUNTY ENVIRONMENTAL HEALTH DIV

1311 HARBOR BAY PARKWAY, ROOM 250

ALAMEDA, CA 94502-6577

ATTN: Mr. Thomas F. Peacock.

RE: BIANNUAL GROUNDWATER MONITORING REPORT 208 JACKSON STREET, OAKLAND CA 94607 ACC PROJECT NO. 96-6238-DDT:02

DEAR SIRS/MADAM:

ELCLOSED PLEASE FIND ONE COPY OF THE BIANNUAL GROUNDWATER MONITOR-ING REPORT PREPARED BY ACC ENVIRONMENTAL CONSULTANTS, INC. (ACC).

THIS REPORT WAS REQUESTED BY YOU.

SINCERELY,

(JANICH CHOW) (MS.)

SECRETARY



BIANNUAL GROUNDWATER MONITORING REPORT

Wo Lee Food Company 208 Jackson Street Oakland, California

ACC Project No. 96-6238-001.02

Prepared for:

Wo Lee Food Company 208 Jackson Street Oakland, California

October 24, 1997

Prepared by:

Misty C. Kaltreider Senior Project Geologist

Reviewed by:

David R. DeMent, RG Senior Geologist NO. SETA

DAVID R. DEMEN

TABLE OF CONTENTS

2.0 BACKGROUND 1 3.0 GROUNDWATER MONITORING AND SAMPLING 2 3.1 Groundwater Monitoring 2 3.2 Groundwater Gradient 3 3.3 Groundwater Sampling 4 4.0 RESULTS OF GROUNDWATER SAMPLING 4 5.0 DISCUSSION 5 5.1 Natural Attenuation 6 6.0 CONCLUSIONS 6	1.0	INTRODUCTION	Page
3.0 GROUNDWATER MONITORING AND SAMPLING 3.1 Groundwater Monitoring 3.2 Groundwater Gradient 3.3 Groundwater Sampling 4.0 RESULTS OF GROUNDWATER SAMPLING 5.0 DISCUSSION 5.1 Natural Attenuation 6.0 CONCLUSIONS 7.0 RECOMMENDATIONS 7 TABLES 1 - Groundwater Depth Information 2 - Groundwater Gradient and Flow Direction. 3 - Groundwater Sample Analytical Results FIGURES 1 - Location Map 2 - Site Plan	1.0	INTRODUCTION	
3.1 Groundwater Monitoring 3.2 Groundwater Gradient	2.0	BACKGROUND	1
3.1 Groundwater Monitoring 3.2 Groundwater Gradient	3.0	GROUNDWATER MONITORING AND SAMPLING	2
3.2 Groundwater Gradient 3.3 Groundwater Sampling 4 4.0 RESULTS OF GROUNDWATER SAMPLING 5.0 DISCUSSION 5.1 Natural Attenuation 6 6.0 CONCLUSIONS 6 7.0 RECOMMENDATIONS 7 TABLES 1 - Groundwater Depth Information 2 - Groundwater Gradient and Flow Direction 3 - Groundwater Sample Analytical Results 5 FIGURES 1 - Location Map 2 - Site Plan		3.1 Groundwater Monitoring	2
3.3 Groundwater Sampling		3.2 Groundwater Gradient	3
5.0 DISCUSSION 5.1 Natural Attenuation 6.0 CONCLUSIONS 6.0 RECOMMENDATIONS 7.0 RECOMMENDATIONS 7.0 TABLES 1 - Groundwater Depth Information 2 - Groundwater Gradient and Flow Direction 3 - Groundwater Sample Analytical Results 5.1 - Location Map 2 - Site Plan 5.1 Natural Attenuation 6.1 Natural			
5.1 Natural Attenuation 6 6.0 CONCLUSIONS 6 7.0 RECOMMENDATIONS 7 TABLES 1 - Groundwater Depth Information 2 2 - Groundwater Gradient and Flow Direction 3 3 - Groundwater Sample Analytical Results 5 FIGURES 1 - Location Map 2 - Site Plan	4.0	RESULTS OF GROUNDWATER SAMPLING	4
5.1 Natural Attenuation 6 6.0 CONCLUSIONS 6 7.0 RECOMMENDATIONS 7 TABLES 1 - Groundwater Depth Information 2 - Groundwater Gradient and Flow Direction 3 - Groundwater Sample Analytical Results 7 FIGURES 1 - Location Map 2 - Site Plan	5.0	DISCUSSION	5
7.0 RECOMMENDATIONS			
TABLES 1 - Groundwater Depth Information	6.0	CONCLUSIONS	e
TABLES 1 - Groundwater Depth Information	7.0	RECOMMENDATIONS	
1 - Groundwater Depth Information			
2 - Groundwater Gradient and Flow Direction	TAI	BLES	
3 - Groundwater Sample Analytical Results	1 - 0	Groundwater Depth Information	3
FIGURES 1 - Location Map 2 - Site Plan			
1 - Location Map 2 - Site Plan	3-(Groundwater Sample Analytical Results	
2 - Site Plan	FIG	FURES	
2 - Site Plan	1 1	ocation Man	
		•	
APPENDICES	API	PENDICES	
1 - Well Monitoring Worksheet	1 - 1	Well Monitoring Worksheet	
2 - Analytical Results and Chain of Custody Record			

BIANNUAL GROUNDWATER MONITORING REPORT

Wo Lee Food Company 208 Jackson Street Oakland, California

1.0 INTRODUCTION

On behalf of Wo Lee Food Company, ACC Environmental Consultants, Inc., (ACC) has prepared this report of biannual groundwater monitoring performed at 208 Jackson Street, Oakland, California (Figure 1). The purpose of the work was to evaluate groundwater in the vicinity of the former fuel underground storage tanks (USTs). The project objectives were to: 1) measure the groundwater levels in each well and calculate groundwater elevation, gradient, and flow direction; 2) obtain groundwater samples from the two selected monitoring wells and analyze the water samples for petroleum hydrocarbon constituents; and 3) report the findings.

2.0 BACKGROUND

Four USTs were removed from the site in March 1990 (Figure 2). Tanks #1 and #3 are reported to have contained diesel fuel and tanks #2 and #4 reportedly contained gasoline fuel. Laboratory analytical results indicated that concentrations of total petroleum hydrocarbons as diesel (TPHd) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) were reported in the soil from the excavation of tank #1. Soils left in place in the other tank excavations contained relatively low concentrations of total petroleum hydrocarbons as gasoline (TPHg), TPHd, and BTEX. Approximately 125 cubic yards of soil generated from the tank removals were reportedly excavated and stockpiled on site.

Three exploratory soil borings were drilled at the site by Subsurface Consultants, Inc., (SCI) in May 1990 and converted into groundwater monitoring wells MW-1, MW-2, and MW-3 (Figure 2). SCI collected water samples from monitoring wells MW-2 and MW-3 and the tank #2 excavation in January 1994 and submitted the samples for analyses. Analytical results of groundwater samples from wells MW-2 and MW-3 did not indicate concentrations of TPHg, TPHd, or BTEX, but a sample of water collected from the tank #2 excavation indicated 3,700 μ g/L or micrograms per liter, equivalent to parts per billion (ppb) TPHd and 1.1 ppb xylenes.

SCI conducted further subsurface assessment in May 1994. Two additional groundwater monitoring wells (MW-4 and MW-5) were installed downgradient of the former USTs, adjacent to Second Street in the southern corner of the property. SCI sampled the onsite monitoring wells but was unable to locate well MW-1. Well MW-1 is believed to have been destroyed during overexcavation of soil in the vicinity of former tanks #1 and #3. Analytical results of groundwater samples collected from wells MW-2, MW-4, and MW-5 indicated that groundwater had been impacted by petroleum hydrocarbons from the former underground storage of gasoline and diesel fuels.

Due to the constituents in the groundwater detected on site, Alameda County Health Care Services Agency (ACHCSA) requested additional offsite and onsite subsurface investigation.

In March 1995, ACC performed an additional subsurface investigation, which included drilling five exploratory soil borings (B-1 through B-5) off site along Second and Madison Streets (in the downgradient direction) and 11 onsite borings (B-6 through B-16). Laboratory analytical results indicated that subsurface soil and groundwater impacts were predominantly located in the immediate vicinity of the open excavation and wells MW-4 and MW-5, with little or no offsite migration. In September through November 1995, ACC measured water levels in four groundwater monitoring wells and calculated groundwater flow direction and gradient. This work was performed in order to properly place any proposed downgradient monitoring wells.

ACC prepared a Corrective Action Plan (CAP) dated July 10, 1996. Based on investigation work performed to date, ACC recommended selective excavation and impacted groundwater removal as a means of source removal. This CAP was later amended to recommend natural attenuation as the primary remedial action option due to decreases in the concentrations of gasoline and diesel fuel constituents documented in groundwater.

In its letter dated August 12, 1996, ACHCSA requested that biannual groundwater monitoring and sampling be reinstated to evaluate groundwater conditions at the site. The letter requested that samples be analyzed for TPHg, TPHd, BTEX, and methyl tertiary butyl ether (MTBE). Initial biannual monitoring was conducted on September 4, 1996. ACHCSA approved sampling in wells MW-4 and MW-5 only in a letter dated September 24, 1997, based on previous non-reportable concentrations of petroleum hydrocarbons in wells MW-2 and MW-3.

3.0 GROUNDWATER MONITORING AND SAMPLING

ACC conducted biannual groundwater monitoring and sampling on October 1, 1997. Work at the site included measuring depth to water and subjectively evaluating groundwater in the four existing wells, and purging and sampling wells MW-4 and MW-5 for laboratory analysis.

3.1 Groundwater Monitoring

Before groundwater sampling, the depth to the surface of the water table was measured from the top of the polyvinyl chloride well casing using an electric water level meter. The water level measurements were recorded to the nearest 0.01 foot with respect to mean sea level (MSL). Groundwater monitoring data recorded on the well monitoring worksheet is included as Appendix 1. Information regarding well elevations and groundwater levels are summarized in Table 1.

TABLE 1 - GROUNDWATER DEPTH INFORMATION

Well Number	Date Measured	Casing Elevation (MSL)	Groundwater Depth (feet)	Groundwater Elevation (MSL)
MW-2	09/26/95	6.64	5.20	1.44
	10/27/95		5.11	1.53
	11/30/95		5.19	1.45
	09/04/96		5.05	1.59
	03/21/97		4.31	2.33
	10/01/97		5.18	1.46
MW-3	09/26/95	7.71	5.71	2.00
	10/27/95		5.81	1.90
	11/30/95		5.90	1.81
	09/04/96	ļ	5.64	2.07
:	03/21/97		5.03	2.68
	10/01/97		5.84	1.87
MW-4	09/26/95	6.74	5.39	1.35
	10/27/95		5.43	1.31
	11/30/95		5.51	1.23
	09/04/96		5.28	1.46
	03/27/97		4.67	2.07
	10/01/97		5.46	1.28
MW-5	09/26/95	6.73	5.14	1.59
	10/27/95		5.17	1.56
	11/30/95		5.26	1.47
	09/04/96		5.11	1.62
	03/21/97		4.32	2.41
	10/01/97		5.23	1.50

Notes: All measurements in feet relative to MSL

3.2 Groundwater Gradient

The groundwater flow direction as determined from monitoring well data obtained on October 1, 1997, is illustrated on Figure 3. Based on groundwater elevation measurements, groundwater flow at the site is toward the south at a gradient of 0.003 foot/foot. The groundwater flow direction and gradient are consistent with previous sampling events. Table 2 summarizes historic gradients and approximate flow directions determined from groundwater elevations.

TABLE 2 - GROUNDWATER GRADIENT AND FLOW DIRECTION

Date Monitored	Average Gradient (foot/foot)	Direction
September 9, 1995	0.004	south-southeast
October 27, 1995	0.003	south
November 30, 1995	0.003	south
September 4, 1996	0.003	south
March 21, 1997	0.007	south
October 1, 1997	0.003	south

3.3 Groundwater Sampling

Before groundwater sampling, each well was purged using a disposable polyethylene bailer. Groundwater samples were collected when temperature, pH, dissolved oxygen (DO), salinity, turbidity, and conductivity of the water stabilized and a minimum of four well casing volumes of water had been removed. Following purging, each well was allowed to recharge before sampling. When recovery to 80 percent of the static water level was observed, a sample was collected for analysis. Groundwater conditions were monitored during purging and sampling. A copy of the well monitoring worksheet is presented as Appendix 1.

Wells were sampled using disposable polyethylene bailers attached to new string. From each monitoring well, approved, laboratory-supplied sample vials were filled to overflowing and sealed so that no air was trapped in the vial. Once filled, sample vials were inverted and tapped to test for air bubbles. Sample containers were labeled with self-adhesive, preprinted tags. The samples were stored in a pre-chilled, insulated container pending delivery to a state-certified laboratory for analysis.

Water purged during the development and sampling of the monitoring wells was temporarily stored on site in Department of Transportation approved 55-gallon drums pending laboratory analysis and proper disposal.

4.0 RESULTS OF GROUNDWATER SAMPLING

Groundwater samples collected from wells MW-4 and MW-5 were submitted to Chromalab, Inc., following chain of custody protocol. The samples were analyzed for TPHg, BTEX, and MTBE by EPA Methods SW846 8020A Nov 1990/8015M and TPHd by EPA Methods 8015M. Samples from wells MW-4 and MW-5 had reportable concentrations of TPHg and BTEX and TPHd was reported in well MW-5. Table 3 summarizes groundwater sample analytical results. A copy of the analytical results and chain of custody record is included in Appendix 2.

TABLE 3 - GROUNDWATER SAMPLE ANALYTICAL RESULTS

Well No.	Date Sampled	TPHg (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Xylenes (μg/L)	TPHd (μg/L)	MTBE (μg/L)
MW-1	05/21/90	25,000	400	440	330	650	5,500	
(destroyed)			_					
MW-2	05/21/90	< 50	<1.0	<1.0	< 1.0	<1.0	< 50	
 	01/06/94	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 50	
	09/04/96	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 50	< 5.0
	03/21/97	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 50	< 5.0
	10/01/97							
MW-3	05/21/90	< 50	<1.0	<1.0	<1.0	<1.0	< 50	
	01/06/94	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 50	
	06/03/94	< 50	< 0.5	< 0.5	< 0.5	< 0.5	230 ⁽¹⁾	
	09/04/96	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 50	< 50
	03/21/97	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 50	< 5
	10/01/97							
MW-4	06/03/94	210,00	7,600	28,000	3,700	24,000	9,800	
	09/04/96	0	5,100	4,600	4,100	14,000	< 50	< 500
	03/21/97	45,000	5,000	6,300	4,600	14,000	< 50	< 250
	10/01/97	58,000	5,000	3,800	3,900	12,000	< 260	<250
		48,000						
MW-5	06/03/94	7,800	3.8	6.2	10	16	4,600	
	09/04/96	1,600	14	3.6	9.7	13	< 50	< 5
	03/21/97	430	4.2	< 0.5	1.4	0.62	690 ⁽²⁾	< 5
	10/01/97	1,100	0.7	1.1	1.2	1.9	1,800 ⁽²⁾	< 5

Notes: (1) Reported to be an anomalous result from one chromatogram peak

5.0 DISCUSSION

Overall, concentrations of TPHg and BTEX decreased in well MW-4 and concentrations of TPHg, BTEX, and TPHd increased in well MW-5. For the third consecutive sampling event, TPHd was not detected in well MW-4 above the laboratory reporting limit. No MTBE was detected in any of the groundwater samples and does not appear to have been added to the gasoline used at the site.

Due to the limitations of the analytical methods used to quantify gasoline and diesel range petroleum hydrocarbons, it is difficult to accurately document concentration changes. According to the analytical laboratory, gasoline constituents range from C4 to C13, diesel constituents range from C9

⁽²⁾ Hydrocarbon reported does not match laboratory diesel standard

to C24, and motor oil constituents range from C18 upward. Therefore, C9 to C13 and C18 to C24 range constituents are not double counted but may be incorrectly identified. For example, ACC believes that degraded diesel may be quantified as gasoline in wells MW-4 and MW-5, and motor oil identified in well MW-5 may degrade and be quantified as diesel. In addition, with both gasoline and diesel fuel constituents present, interference effects can occur, like those that raised the diesel reporting limit to 260 ppb in the sample from well MW-4.

Flow direction and gradient were consistent with previous sampling events. Gradient appears to vary on a seasonal basis from 0.003 during dry periods to approximately 0.007 following precipitation events. Generally, groundwater gradient is relatively flat and flow direction is consistently to the south.

5.1 Natural Attenuation

Remediation by natural attenuation is the reduction in concentration, mass, or mobility of constituents of concern with distance and time due to naturally occurring processes in the environment. For petroleum hydrocarbons in the subsurface, biological degradation is the most important process in the reduction of mass.

Direct evidence of natural attenuation has been documented at the site. Groundwater monitoring has demonstrated decreases in concentrations of petroleum hydrocarbons, particularly BTEX and short-chain hydrocarbons. Previous boring investigation indicated little or no offsite migration. Site conditions appear to support natural biodegradation before the petroleum hydrocarbons can migrate any appreciable distance. Concentrations of petroleum hydrocarbons fluctuate but are generally decreasing with time.

6.0 CONCLUSIONS

Based on information collected during three consecutive sampling events, ACC concludes that:

- Calculated groundwater flow direction and gradient are consistent;
- MTBE was not detected in any of the sampled wells;
- Concentrations of gasoline and diesel constituents continue to fluctuate in wells MW-4 and MW-5 but generally trend downward;
- Natural attenuation processes, principally biodegradation, are reducing the mass and concentration of dissolved-phase petroleum hydrocarbons but are controlled by dissolved oxygen levels.

7.0 RECOMMENDATIONS

Based on conclusions from consecutive sampling events, ACC recommends that:

- MTBE analysis be removed from any subsequent sampling events;
- Oxygen releasing compound be installed in wells MW-4 and MW-5, or in the vicinity of the wells, to enhance natural biodegradation and assist in preventing any offsite migration of impacted groundwater;
- Groundwater sampling and monitoring of onsite wells (MW-4 and MW-5) should continue on a biannual basis to verify the trend of decreasing petroleum hydrocarbon concentrations.

The next biannual groundwater sampling will be conducted in March 1998.

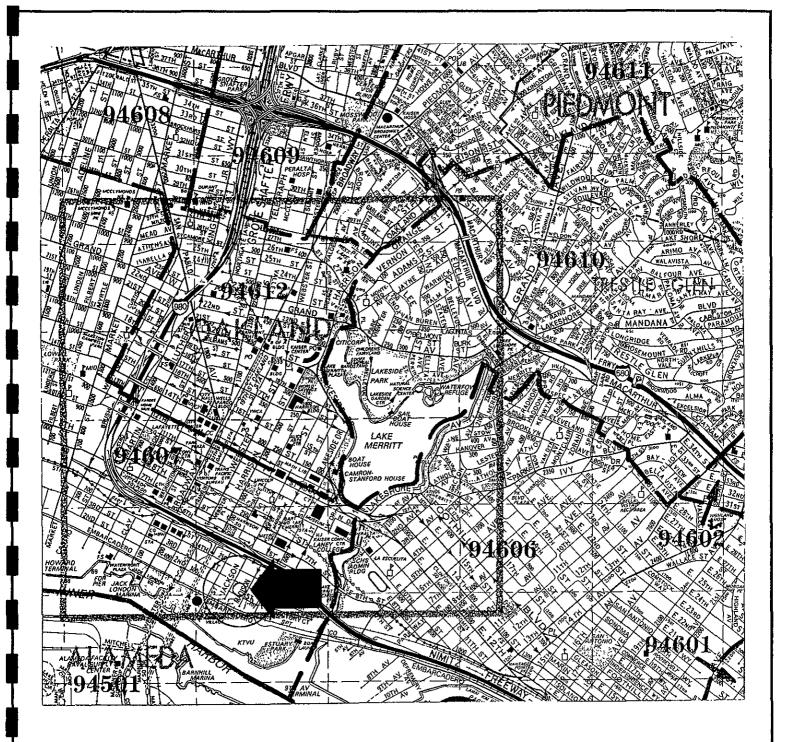


FIGURE 1: LOCATION MAP

208 Jackson Street Oakland, California

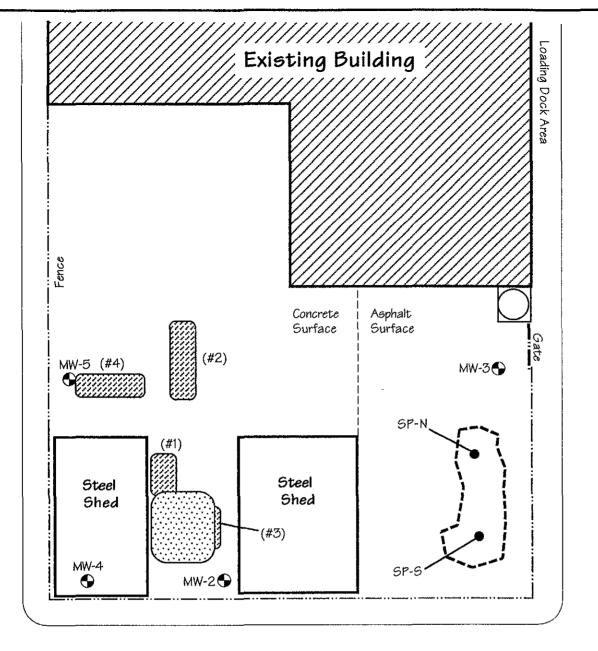
Project No. 6249-1.0 Scale: 1" = 40'

Drawn By: JVC Date: 10/30/95

ACC Environmental Consultants 7977 Capwell Drive, Suite 100 Oakland, CA 94621 (510)638-8400 Fax (510)638-8404

7

Source: Thomas Brothers Guide



Jackson Street

Madison Street

Legend



- Open Excavation



- Former UST Location



Existing Groundwater
Monitoring Well



- Soil Stockpile

SP-5 - Soil Sample

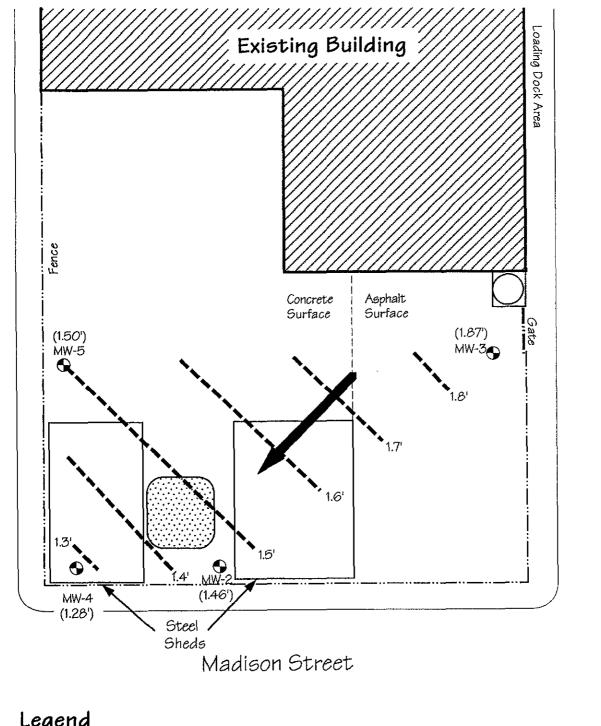
Title: SITE Plan

208 Jackson Street Oakland, California

Project No: 6249-001.00

ACC Environmental Consultants, Inc. 7977 Capwell Drive, Sults 100 Oakland, CA 94621 (510)638-8400 Fax (510)638-8404





Legend

MW-2

Second Street

- Existing Groundwater Monitoring Well



Groundwater Elevation Contour



- Approximate Groundwater



- Open Excavation

Flow Direction

Title: Gradient Map

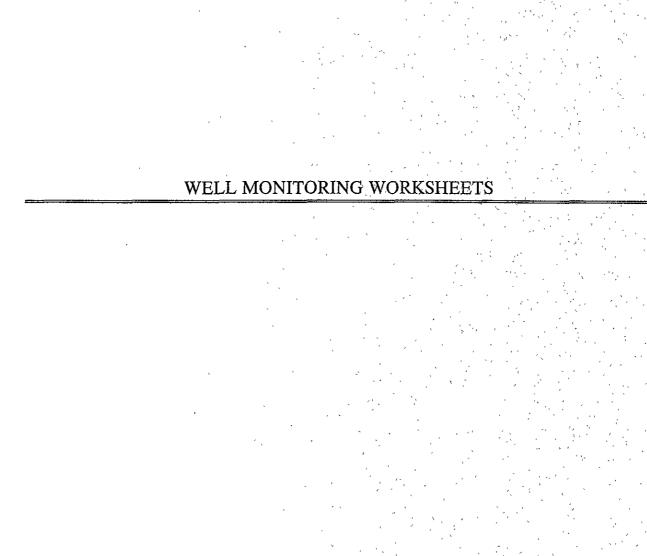
Wo Lee Food 208 Jackson Street Oakland, California

Figure No: Scale: 1" = 40' Date: 10/20/97 Drawn By: JVC/DRD

6238-001.02 Project No:

ACC Environmental Consultants, Inc. 7977 Capwell Drive, Sults 100 Oakland, CA 94621 (510)638-8400 Fax (510)638-8404

Groundwater levels measured on October 1, 1997





ACC MONITORING WELL WORKSHEET

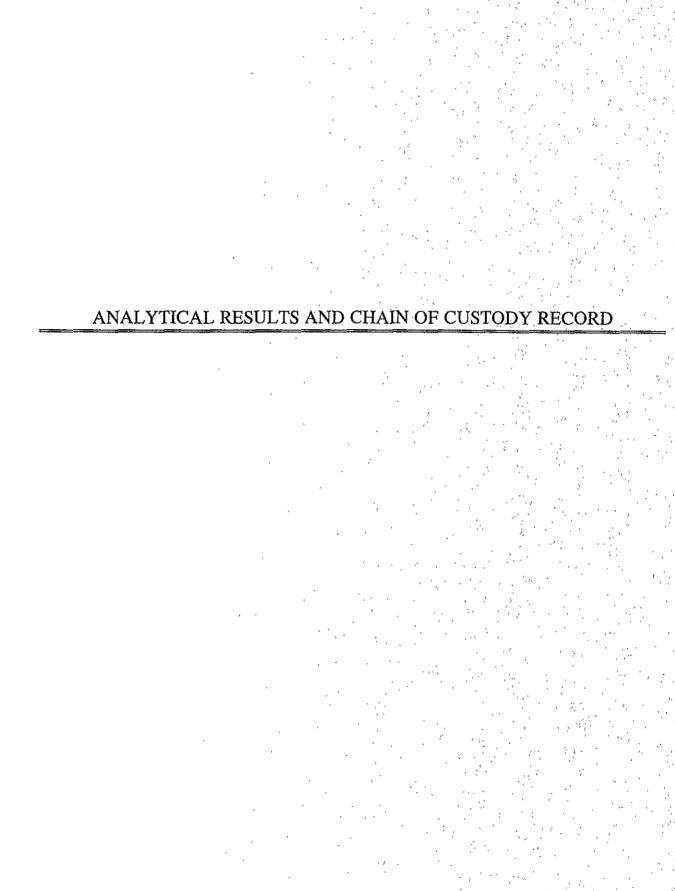
JOBNAME: Wolee Food Co.			PURGE METHOD: Manual Bailing					
SITE ADDRESS: 208 Julison St.				SAMPLED BY: Eloy Cisnoros				
JOB#: 1249-1.0				LABORA	TORY:	<u>Ch</u>	roma,	146
DATE: 10/1/97				ANALYS	is: T	PHG,	BIEX	MTBE, TPHd
Onsite Drum Inventory SOIL:				MONITO		•		DEVELOPING
EMPTY: / WATER: /=100	10 2	= 50%	<u>/</u>	SAMPLIN	ig 🕱		****	
	PURGE							
	VOL:		PURG	EWATE	RREAD	INGS		OBSERVATIONS
WELL: MW-2	(Gal)	рН	Temp.(C)	Cond.	Sal.	Turb.	D.O.	Froth
DEPTH OF BORING: 4,20'								Sheen
DEPTH TO WATER: 5.18								Odor Type
WATER COLUMN: 4,02						- ,		Free Product
WELL DIAMETER: λ^{μ}								AmountType
WELL VOLUME:			_/_					Other
COMMENTS: Dizl Not Sample								
	2/							
WELL: MW-3	(Gal)	рН	Temp.(C)	Cond.	Sal.	Turb.	D.O.	Froth
DEPTH OF BORING: 9.23								Sheen
DEPTH TO WATER: 5,84								Odor Type
WATER COLUMN: 3.39								Free Product
WELL DIAMETER: 2"					<u> </u>			AmountType
WELL VOLUME:]				Other
COMMENTS: Did Not Sample				<u> </u>				
WELL: MW-4	(Gal)	рН	Temp.(C)		Sal.	Turb.	D.O.	Froth
DEPTH OF BORING: 9.38		7.68	21.1	1.19	0.10	999	1.42	Sheen
DEPTH TO WATER: 5.46	1.4		20.8		0.09			Odor Type gws
WATER COLUMN: 3.42	2.1	7.61	20.6	1.17	0.09	999	2.04	Free Product
WELL DIAMETER: 2"		ļ						AmountType
WELL VOLUME: 26.7gal		ļ						Other
COMMENTS:				<u> </u>				
			<u> </u>					
	2.8	7.61	20.5	1.17	0.09	999	11.81	
7977 Capwell Driv	e, Suite 10	00 • Oa	akland, C	94621	(510) 6	38-8400	FAX: (5	o10) 638-8404



ACC MONITORING WELL WORKSHEET

			PURGE METHOD: W. 12-1						
				PURGE METHOD: Manual Briling. SAMPLED BY: Elon Cisners					
JOB#: 6249-1.0							toma		
DATE: 10/1/97							STEX	· M	TBE, TPHd.
Onsite Drum Inventory SOIL:				MONITO		×		DEVE	ELOPING 🗆
EMPTY: / WATER: /=/00	J = 3	50%		SAMPLI	VG 🔀		(355)	300000000000000000000000000000000000000	200,000
	PURGE								
	AOL.		PURG	EWATE	H REAL	NGS			OBSERVATIONS
WELL: MW-5	(Gal)		Temp.(C)		Sal.	Turb.	D.O.	F	-roth
DEPTH OF BORING: 9.00	0.7	7.59	21.8	0.843	0.03	999	2.23		Sheen
DEPTH TO WATER: 5,23	1,4	763	214	0.856	0.03	l	1,97		Odor Type
WATER COLUMN: 3,77	2.1	7.64	21.0	0.861	<i>0.</i> 03	999	2.08		Free Product
WELL DIAMETER: 2"								Amou	intType
WELL VOLUME: ~ B. Figal					 	ļ			Other
COMMENTS:									
_	2.8	36 ,64	20,8	0.860	0.03	999	2.11		
WELL:	(Gal)	рН	Temp.(C)	Cond.	Sal.	Turb.	D.O.		Froth
DEPTH OF BORING:			<u> </u>						Sheen
DEPTH TO WATER:								<u> </u>	Odor Type
WATER COLUMN:									Free Product
WELL DIAMETER:								Amot	untType
WELL VOLUME:									Other
COMMENTS:									
]	
WELL:	(Gal)	ρН	Temp.(C)	Cond.	Sal.	Turb.	D,O.		Froth
DEPTH OF BORING:									Sheen
DEPTH TO WATER:									Odor Type
WATER COLUMN:									Free Product
WELL DIAMETER:								Amo	untType
WELL VOLUME:									Other
COMMENTS:			T						
		1				<u> </u>		1	
		 	<u> </u>	1				7	

7977 Capwell Drive, Suite 100 • Oakland, CA 94621 • (510) 638-8400 • FAX: (510) 638-8404



Environmental Services (SDB)

October 13, 1997

Submission #: 9710065

ACC ENVIRONMENTAL CONSULTANTS 7977 CAPWELL DRIVE, SUITE 100 OAKLAND, CA 94621

Attn: David DeMent

RE: Analysis for project 208 JACKSON ST., number 6249-1.0.

REPORTING INFORMATION

Samples were received cold and in good condition on October 3, 1997. They were refrigerated upon receipt and analyzed as described in the attached report. ChromaLab followed EPA or equivalent methods for all testing reported.

No discrepancies were observed or difficulties encountered with the testing.

Motor oil was found in sample MW-5.

Dennis Mayugba

Chemist

Álex Tam

Semivolatiles Supervisor

Environmental Services (SDB)

October 13, 1997

Submission #: 9710065

ACC ENVIRONMENTAL CONSULTANTS

Atten: David DeMent

Project: 208 JACKSON ST.

Received: October 3, 1997

Project#: 6249-1.0

re: 2 samples for TPH - Diesel analysis.

Method: EPA 8015M

Sampled: October 1, 1997

Matrix: WATER

Extracted: October 9, 1997

Run#: 9091 Analyzed: October 11, 1997

		REPORTING	BLANK	BLANK I	NOITULIC
	DIESEL	LIMIT	RESULT	SPIKE	FACTOR
Spl# CLIENT SPL ID	(ug/L)	(ug/L)	(ug/L)	(%)	
150878 MW-4	N.D.	260	N.D.	71.5	5
<i>150879</i> MW-5	1800	56	N.D.	71.5	1
			~		

Note: Hydrocarbon reported does not match the pattern of our Diesel Standard. Estimated concentration due to overlapping fuel patterns

Dennis Mayugba

Chemist

Alex Tam

Semivolatiles Supervisor

Environmental Services (SDB)

October 15, 1997

Submission #: 9710065

ACC ENVIRONMENTAL CONSULTANTS

Atten: David DeMent

Project: 208 JACKSON ST.

Received: October 3, 1997

Project#: 6249-1.0

re: One sample for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-5

Spl#: 150879 Sampled: October 1, 1997 Matrix: WATER

Run#: 9147

Analyzed: October 14, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	1100	50	N.D.	92	1
MTBE	N.D.	5.0	N.D.	115	1
BENZENE	0.70	0.50	N.D.	103	1
TOLUENE	1.1	0.50	N.D.	106	1
ETHYL BENZENE	$\bar{1}, \bar{2}$	0.50	N.D.	106	1
XYLENES	1.9	0.50	N.D.	103	1

Kayvan Kimyai

Chemist

Marianne Alexander

Gas/BTEX Supervisor

Environmental Services (SDB)

October 15, 1997

Submission #: 9710065

ACC ENVIRONMENTAL CONSULTANTS

Atten: David DeMent

Project: 208 JACKSON ST.

Received: October 3, 1997

Project#: 6249-1.0

re: One sample for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-4

Spl#: 150878 Sampled: October 1, 1997 Matrix: WATER

Run#: 9147

Analyzed: October 14, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK DILUTION SPIKE FACTOR (%)
GASOLINE MTBE BENZENE TOLUENE ETHYL BENZENE XYLENES	48000 N.D. 5000 3800 3900 12000	2500 250 25 25 25 25	N.D. N.D. N.D. N.D. N.D.	92 50 115 50 103 50 106 50 106 50 103 50

Kayvan Kimyai

Chemist

Marianne Alexander

Gas/BTEX Supervisor

SUBM #: 9710065 REP: PM

CLIENT: ACC

10/10/97

REF #:35880

35880

Chain of Custody

DATE 10/3/97 PAGE 1 OF _ Environmental Services (SDB) (DOHS 1094) ANALYSIS REPORT PROJ MGR Dave De Went COMPANY ACC Environmental PURGEABLE HALOCARBONS PROJ MGR Z NUMBER OF CONTAINERS Zu, (EPA 625/627, 8270, 525) PRIORITY POLLUTANT METALS (13) PURGEABLE AROMATICS BTEX (EPA 602, 8020) BASE/NEUTRALS, ACIDS ADDRESS 7977 Capwell Dr., Suite 100 Oakland, CA 94621 TOTAL RECOVERABLE HYDROCARBONS (EP. TOTAL OIL & GREASE (EPA 5520, 8+F, E+F) VOLATILE ORGANICS (EPA 624, 8240, 524.2) METALS: Cd, Cr, Pb, CAM METALS (17) (EPA 608, 8080) EXTRACTION (TCLP, STLC) (EPA 601, 8010) (PHONE NO.) (510) 638-8400 (FAX,NO.) SAMPLERS (SIGNATURE) MW-4 10/197 10:30 100 mw-5 RELINQUISHED BY 1. RELINOVISHED RELINQUISHED BY SAMPLE RECEIPT PROJECT INFORMATION TOTAL NO. OF CONTAINERS (SIGNATURE) (SIGNAXUPE) (TIME) ELONGUISHEROS 193/97
(PRINTED HAME) (DATE)
ACC Equitionnetal (TIME) (DATE) PRINTED NAME REC'D GOOD CONDITION/COLD P.O. # CONFORMS TO RECORD (COMPANY) RECEIVED BY WARDRAY ORY OTHER STANDARD 72 24 RECEIVED BY SPECIAL INSTRUCTIONS/COMMENTS. (SIGNATURE) (PRINTED NAME) (COMPANY)

Environmental Service (SDB)

Sample Receipt Checklist

lient Name: ACC ENVIRONMEN	TAL CONSULTANTS	Date/Time Receiy	ed; 10/03/97 /575
eference/Submis: 35880 //9	710065/)	Received by: P	M
/ //	MI Poully 10	16/97 Paris	wed by: M() 10-6-97
Checklist completed by: $\frac{M}{s}$	ignature	Date Revie	Initials Date
atrix: H20	Carrier	name: Client -	(/L)
-			Not
hipping container/cooler in good	d condition?	Yes	No Present
Custody seals intact on shipping	container/cooler?	Yes	No Not Present
eustody seals intact on sample b	ottles?	Yes	No Not
hain of custody present?			YesNo
hain of custody signed when rel	inquished and receive	ed?	YesNo
Chain of custody agrees with sam	ple labels?		YesNo
amples in proper container/bott	le?		YesNo
Sample containers intact?			YesNo
ufficient sample volume for ind	icated test?		YesNo
- All samples received within hold	ing time?	0.0	YesNo
ontainer/Temp Blank temperature	in compliance?	Temp:	°C Yes No
• Water - VOA vials have zero head	space? No VO	vials submitted	Yes No
ater - pH acceptable upon recei	pt? √ lS Adjus	sted? Checke	ed by Chemist for VOAs
■ Any No and/or NA (not applicable	,	etailed in the comme	
	#==##==###############################		
Client contacted:	Date contacted:	Person o	ontacted:
i			
tontacted by:	Regarding:		
comments:			
Corrective Action:			
-			