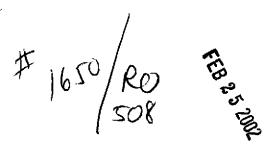
Phone: (925) 283-6000

Fax: (925) 283-6121

February 20, 2002

Mr. Barney Chan ACHCSA 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502



Subject:

Quarterly Groundwater Monitoring Report Sept. '01 and Feb. '02

807 75th Avenue Oakland, CA 95621 AEI Project No. 3190

Dear Mr. Chan:

Enclosed is the report documenting the findings of the eighth and ninth sampling episodes.

Please call Mr. Peter McIntyre at (925) 283-6000 if you have any questions.

Sincerely

Orion Alcalay, M.S.

Environmental Scientist

February 20, 2002



QUARTERLY GROUNDWATER MONITORING REPORT

Eighth and Ninth Episodes September 2001 and February 2002

> 807 75th Avenue Oakland, CA

> Project No. 3190

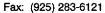
Prepared For

Mr. Allan Kanady Omega Termites 807 75th Avenue Oakland, CA 95621

Prepared By

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(800) 801-3224

AEI





February 20, 2002

Mr. Allan Kanady Omega Termite Control 807 75th Avenue Oakland, CA 95621

RE: Quarterly Groundwater Monitoring and Sampling Report

Eighth and Ninth Sampling Episodes-September 2001 and February 2002 807 75th Avenue Oakland, California Project No. 3190

Dear Mr. Kanady:

AEI Consultants (AEI) has prepared this report to document the results of the eighth and ninth episodes of groundwater sampling at the above referenced site (Figure 1: Site Location Map). This groundwater investigation has been performed in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA). The purpose of this activity is to monitor groundwater quality in the vicinity of the previous locations of the underground storage tanks at the site. This report presents the findings of the eighth and ninth sampling episodes of groundwater monitoring and sampling conducted on September 19, 2001 and February 6, 2002.

Site Description and Background

The property is located on the northern corner of Snell Street and 75th Avenue in the City of Oakland. The site currently supports the operation of Omega Termite Control (Figure 1: Site Location Map).

On September 15, 1996, three gasoline underground storage tanks (USTs) were removed from the property by AEI. The tanks consisted of one 500-gallon, one 1,000-gallon and one 8,000-gallon tank. The former locations of the USTs are shown in Figure 2.

Soil samples were collected from beneath the 500-gallon and 1,000-gallon gasoline tanks and from the three sidewalls of the 8,000-gallon tank excavation. Concentrations of total petroleum hydrocarbons as gasoline (TPH-g) were present in the soil beneath the 500-gallon UST at concentrations of 4,300 mg/kg. Minor concentrations (41 mg/kg) of TPH-g were present beneath the 1,000-gallon tank. The three sidewall samples collected from the 8,000-gallon tank excavation indicated concentrations of TPH-g above 100 mg/kg were present in the western and northwestern samples.

Groundwater was encountered during the excavation of the 8,000-gallon tank. A groundwater grab sample collected from the excavation indicated significant concentrations of petroleum hydrocarbon contaminants (Ref. # 1).

AEI issued a workplan, dated January 10, 1997, to the Alameda County Health Care Services Agency (ACHCSA). The workplan defined the extent and magnitude of petroleum hydrocarbon contamination in the vicinity of the former tanks. Six soil borings were advanced on January 31, 1997. This investigation indicated that groundwater was impacted with up to 27,000 μ g/L of TPH-g and 5,000 μ g/L of benzene. Significant concentrations of TPH-g were also detected in the soil up to ten feet bgs from the excavation (Ref. # 2).

In response to a request by the ACHCSA for further investigation at the site, AEI submitted a workplan to the ACHCSA on May 21, 1999 for the installation and subsequent sampling of four groundwater monitoring wells at the site (Ref. # 3). This workplan was approved by Barney Chan of the ACHCSA and the four wells were installed in June, 1999 (Ref. # 4).

On March 16, 2000, the former UST excavation was expanded to remove soil contaminated with gasoline. Prior to removal of the soil, the water that was in the excavation was pumped into a Baker tank and stored on-site. The excavation was expanded in all directions. The contaminated soil was stockpiled on the north portion of the property and covered with Visqueen. During the over-excavation activities, a 500-gallon UST was discovered on the east corner of the excavation. The tank was removed, and additional contaminated soil was removed from the area of the former tank.

As requested by the ACHCSA, AEI installed a 10-foot length of 4-inch ID PVC pipe in the area of the former UST to act as a temporary extraction well (TW-5).

The analytical results of the current and prior groundwater sampling episodes are included in Table 2.

Summary of Activities

AEI measured the depth to groundwater and collected water samples from the four wells (MW-1 through MW-4) and the temporary extraction well (TW-5) on September 19, 2001 and February 6, 2002. The well locations are shown in Figure 2. The depths from the top of the well casings were measured prior to sampling with an electric water level indicator. Well TW-5 was checked with an oil/water interface probe. The wells were purged using a battery powered submersible pump, and a groundwater sample was collected from each well using clean, disposable Teflon bailers.

Temperature, pH, specific conductivity and dissolved oxygen were measured during the purging of the wells. Once these parameters stabilized, a water sample was collected. AEI removed at least 4 well volumes.

Water was poured from the bailers into 40 ml VOA vials and 1-Liter amber bottles and capped so that neither head space nor air bubbles were visible within the sample containers. Samples were shipped on ice under proper chain of custody protocol to McCampbell Analytical, Inc. of Pacheco, California (State Certification #1644).

Groundwater samples from the five wells were submitted for chemical analysis for TPH-g (EPA Method 5030/8015), methyl tertiary butyl ether (MTBE) (EPA Method 8020/602), benzene, toluene, ethylbenzene, and xylenes (BTEX) (EPA Method 8020/602). Additionally, the sample from TW-5 was analyzed for TPH as diesel and TPH as motor oil (EPA Method 8015/3550).

Field Results

Hydrocarbon odor was observed in all of the wells during the September and February sampling episodes. In particular, a viscous hydrocarbon sheen was also observed in the temporary extraction well TW-5 during well purging activities; however, no reasonable thickness of product was noted in this well during either episode. Due to the inaccessibility of well MW-1, no purging and/or sampling activities were performed for the February episode. Groundwater levels for the September and February sampling episodes ranged from -0.57 to -0.38 feet below Mean Sea Level (MSL) and -.06 to .23 feet below MSL, respectively. The groundwater elevations for the September episode were an average of 0.28 feet lower than the May sampling episode. The groundwater elevations for the February episode were an average of 0.52 feet higher than the September episode. The direction of the groundwater flow for the September episode was towards the south with a gradient of .004 foot per foot (ft/ft). Due to the inaccessibility of well MW-1, the calculated direction of groundwater flow and corresponding gradient may be skewed for the February episode; however, utilizing groundwater elevations for wells MW-2 through MW-4, the direction of groundwater flow was to the southeast with a gradient of 0.005 ft/ft.

Groundwater elevation data are summarized in Table 1. The groundwater elevation contours and the groundwater flow direction are shown in Figures 3 and 4. Refer to Appendix B for the Groundwater Monitoring Well Field Sampling Forms.

Groundwater Quality

Concentrations of TPH-g and BTEX remained elevated in all wells during the September and February sampling episodes. During the September episode, TPH-g and BTEX decreased in wells MW-1 through MW-4 when compared to the previous sampling episode; however, during the February episode, these constituents increased when compared to the September episode.

The temporary extraction well TW-5, exhibited a significant increase in all analyzed petroleum hydrocarbon constituents during the September episode. Concentrations of TPH-g, TPH-d, and TPH-mo were detected up to 15,000 ug/L, 2,700,000 ug/L, and 1,100,000 ug/L, respectively. In particular, concentrations of MTBE which were previously non detect, were present at 530 ug/L. In contrast, all analyzed petroleum hydrocarbon constituents in well TW-5 decreased significantly during the February episode.

Dissolved oxygen (DO) and reduction/oxidation potential (Redox) have been monitored during recent episodes. Very low DO concentrations were found in all four monitoring wells (average DO 2/6/02: MW-2 = 0.28 mg/L, MW-3 = 0.16 mg/L, and MW-4 = 0.39 mg/L). In addition, the Redox measurements were all strongly negative (reducing conditions) during the September 2001 episode.

A summary of groundwater quality data is presented in Table 2. Laboratory results and chain of custody documents are included in Appendix B.

Conclusions

Hydrocarbon concentrations in the four monitoring wells (MW-1 through MW-4) appear relatively stable since monitoring was initiated, with decreasing trends observed in BTEX concentrations observed in MW-2 and MW-3. Higher concentration variability is observed in MW-1 and MW-4.

The concentrations of TPH as diesel and TPH as motor oil in well TW-5 are well above saturation ranges for diesel and oil range products and is indicative of free phase liquid present in this area.

The very low dissolved oxygen concentrations (generally less than 0.10 mg/l in September 2001) reveals that aerobic hydrocarbon degradation may have occurred in the groundwater system. Alternatively, the site is located in an area characterized as a groundwater discharge area, not receiving groundwater with higher oxygen content, as would occur in a farther up gradient recharge area. In either case, it is unlikely that further aerobic hydrocarbon degradation will occur due to the absence of sufficient oxygen in the groundwater system. This suspected lack of significant aerobic degradation is supported by the relatively stable hydrocarbon concentrations exhibited since sampling inception.

Groundwater monitoring and sampling of the five wells will continue, with the next episode scheduled for May 2002. Based on the very high hydrocarbon concentrations present in TW-5, further investigation may be necessary to determine the extent of heavier range dissolved hydrocarbons and determine whether source material remains in the soil. Prior to the site being made eligible for closure, a determination of the extent of the TPH as gasoline / BTEX plume may also be necessary.

References

- 1. Underground Storage Tank Removal Final Report, prepared by AEI October 10, 1996
- 2. Phase II Soil and Groundwater Investigation Report, prepared by AEI March 17, 1997
- 3. Workplan, prepared by AEI May 21, 1999
- 4. Soil Boring and Groundwater Monitoring Well Installation Report, prepared by AEI-September 16, 1999
- 5. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-July 28, 2000.
- 6. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-November 3, 2000.
- 7. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-February 7, 2001.
- 8. Quarterly Groundwater Monitoring and Sampling Report, prepared by AEI-July 2, 2001.

Report Limitations and Signatures

This report presents a summary of work completed by AEI Consultants, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field which existed at the time and location of the work.

Please contact the undersigned or Peter McIntyre for questions regarding the findings outlined in this report.

Sincerely,

AEI Compultarits

Orion Alcalay, M.S. Environmental Scientist

J. P. Derhake, PE

Principal

Figure 1 Site Location Map

Figure 2 Site Plan

Figure 3 Groundwater Contour Map

Table 1 Groundwater Elevations

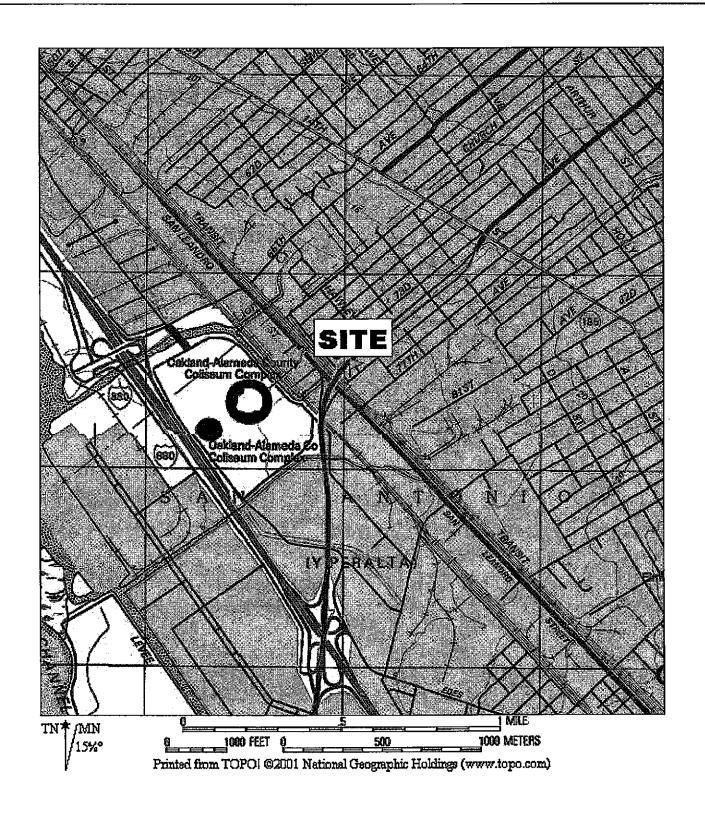
Table 2 Groundwater Sample Analytical Results

Appendix A Groundwater Monitoring Well Field Sampling Forms

Appendix B Current Laboratory Analyses With Chain of Custody Documentation

cc: Mr. Barney Chan, ACHCSA, 1131 Harbor Bay Parkway, Suite 250, Alameda,

CA 94502

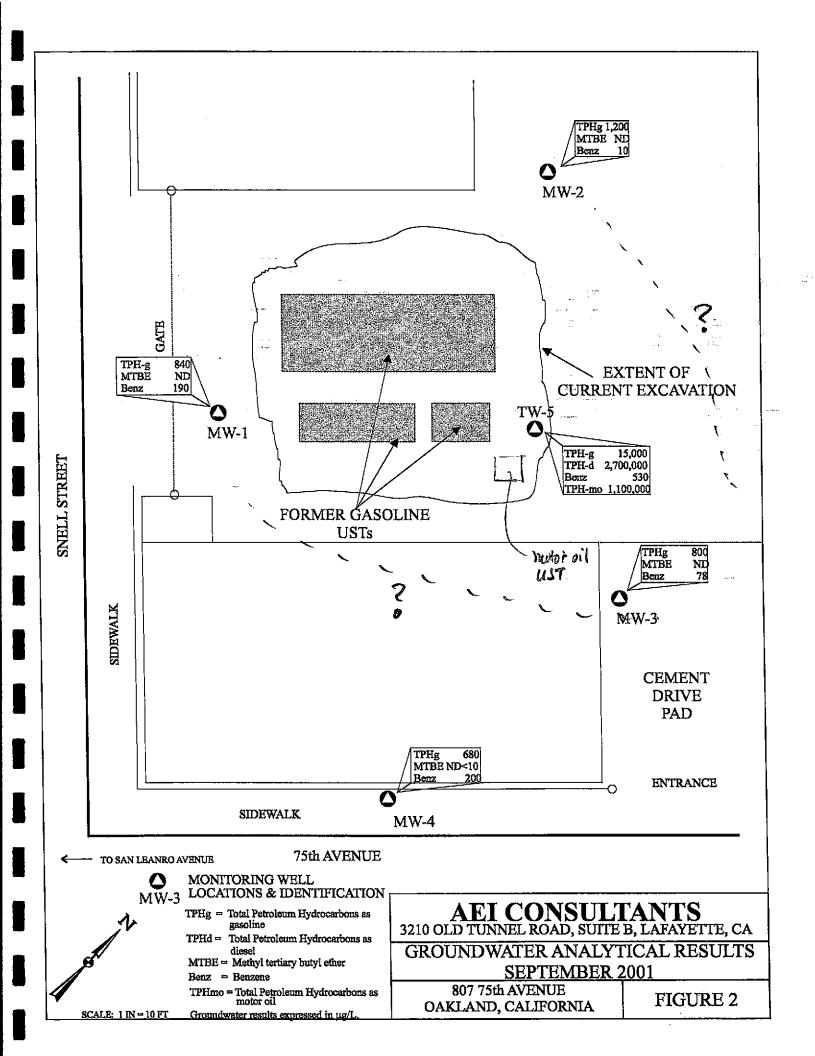


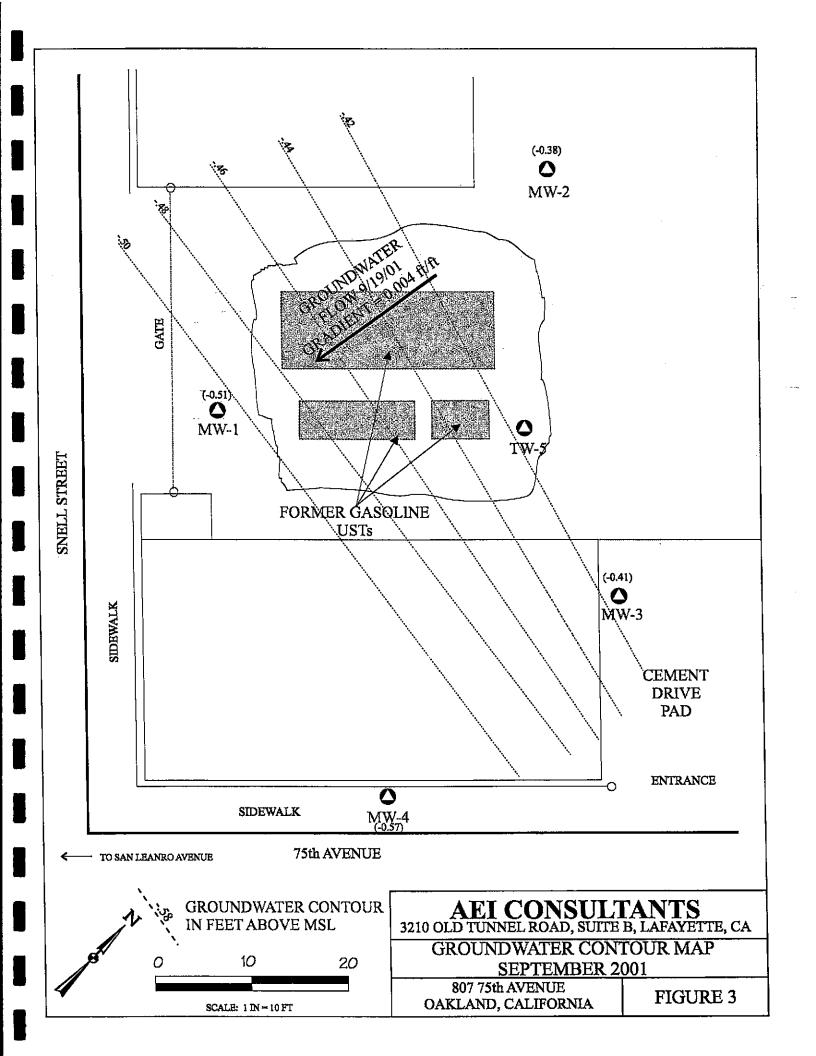
AEI CONSULTANTS 3210 OLD TUNNEL RD, STE B, LAFAYETTE, CA

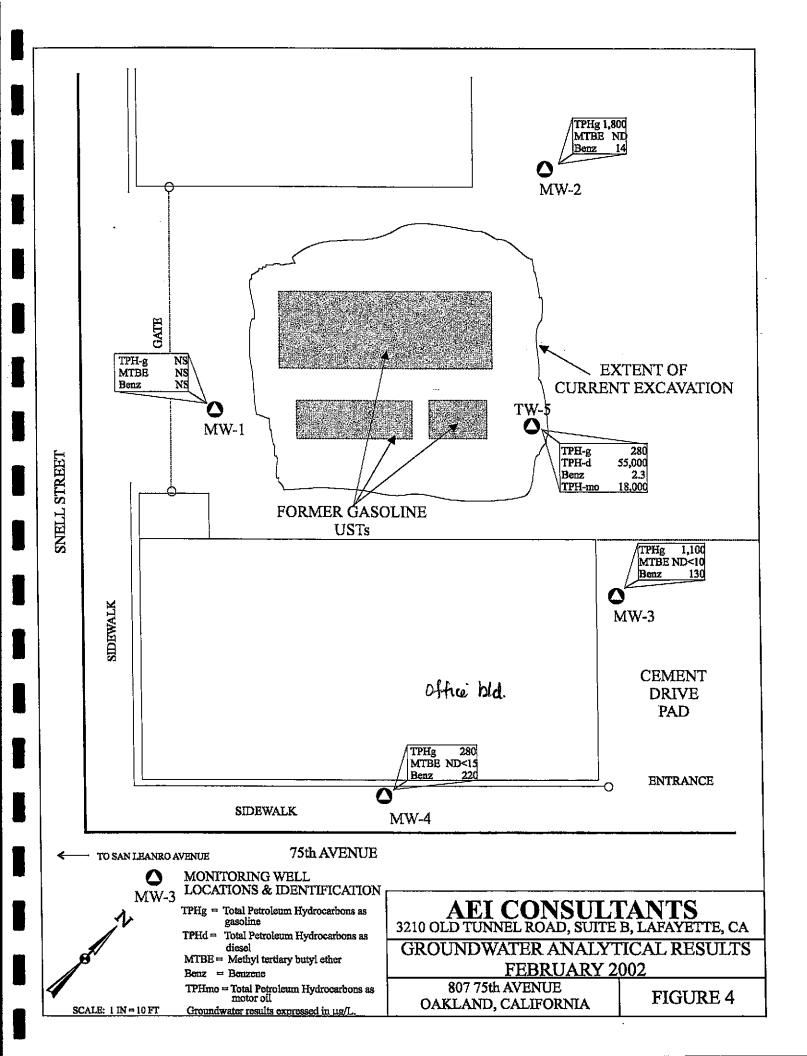
SITE LOCATION MAP

807 75TH STREET OAKLAND, CALIFORNIA

FIGURE 1 PROJECT No. 3190







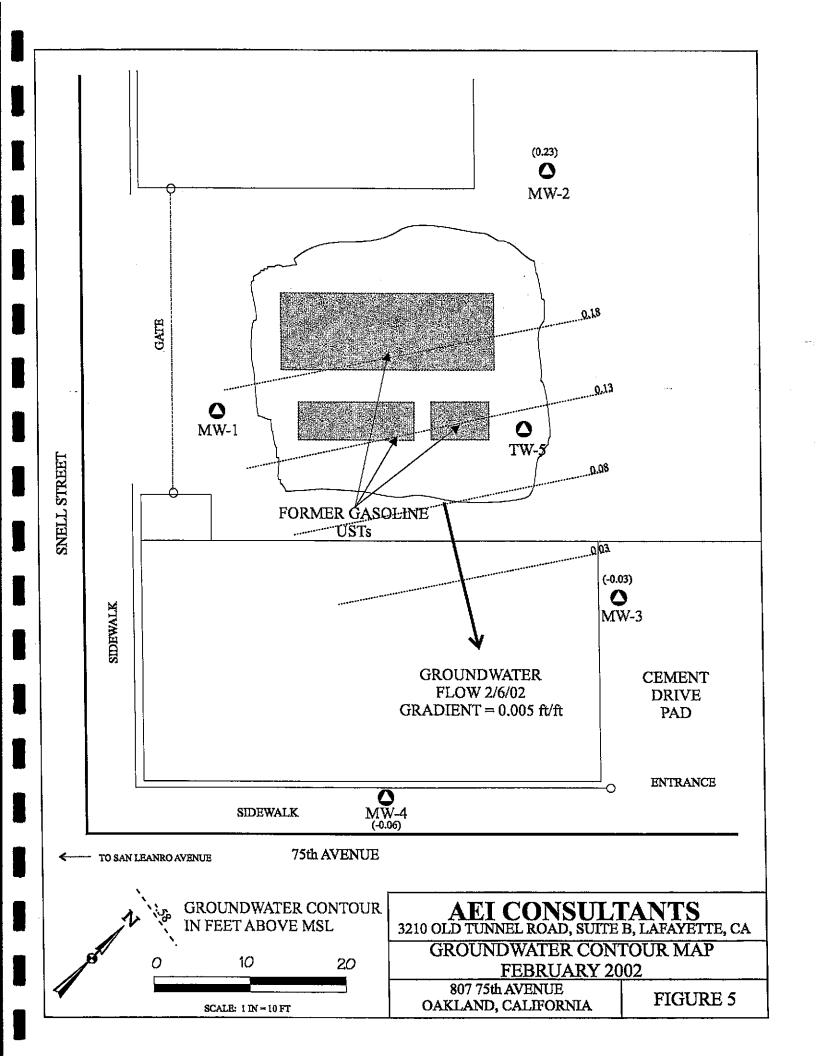


Table 1: Groundwater Elevations

Well ID	Date	Well	Depth	Groundwater
		Elevation	to Water	Elevation
		(ft msl)	(ft)	(ft msl)
			Ü	
MW-1	07/30/99	5.00	5.82	-0.82
	11/09/99	5.00	5.70	-0.70
	02/23/00	5.00	2.84	2.16
	05/26/00	5.00	5.50	-0.50
	10/10/00	5.00	5.70	-0.70
	02/07/01	5.00	5.25	-0.25
•	05/25/01	5.00	5.25	-0.25
	09/19/01	5.00	5.51	-0.51
	02/06/02	NS	NS	NS
MW-2	07/30/99	5.95	6.64	-0.69
141 44 -2	11/09/99	5.95	6.42	-0.47
	02/23/00	5.95	3.31	2.64
	05/26/00	5.95	6.34	-0.39
i	10/10/00	5.95 5.95	6.52	-0.57
	02/07/01	5.95 5.95	5.90	0.05
		5.95 5.95		-0.13
	05/25/01 09/19/01		6.08	-0.13 - 0.38
	*******	5.95 5.05	6.53	
	02/06/02	5.95	5.72	0.23
MW-3	07/30/99	4.66	5.35	-0.69
	11/09/99	4.66	5.11	-0.45
	02/23/00	4.66	2.37	2.29
	05/26/00	4.66	4.98	-0.32
	10/10/00	4.66	5.24	-0.58
	02/07/01	4.66	4.73	-0.07
	05/25/01	4.66	4.73	-0.07
	09/19/01	4.66	5.07	-0.41
	02/06/02	4.66	4.69	-0.03
NATT7 4	07/00/00	4.50	F 15	0.04
MW-4	07/30/99	4.59 4.59	5.45	-0.86
	11/09/99		5.31	-0.72
	02/23/00	4.59	2.72	1.87
1	05/26/00	4.59	5.07	-0.48
	10/10/00	4.59	5.32	-0.73
	02/07/01	4.59	4.73	-0.14
i	05/25/01	4.59	4.90	-0.31
ļ	09/19/01	4.59	5.16	-0.57
	02/06/02	4.59	4.65	-0.06

Notes:

Well elevations measured from top of casing not from ground surface.

ft msl = feet above mean sea level

Table 2: Groundwater Sample Analytical Results

Sample	Sample	TPH	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	TPH as	TPH as
D .	Collection	as gasoline	µg/L	μg/L	μg/L	μg/L	μg/L	diesel	motor oil
	Date	μg/L						μg/L	μg/L
	07.100.100	2.500	-10	200		4.0	100		
MW-1	07/30/99	2,700	<10	920	5.5	18	130	-	-
	11/09/99	1,800	<20	430	1.5	26	60	-	
3	02/23/00	3,800	<10	1,500	56	78	35	- [-
	05/26/00	7,100	<10	2,800	70	220	81	·	-
	10/10/00	980	<5.0	260	2.9	10	11	-	~
	02/07/01	570	<5.0	150	1.8	4.9	9.3	- 1	-
	05/25/01	18,000	ND<100	3,800	350	550	620	- [-
	09/19/01	840	<5.0	190	4.0	4.6	5.3	-	-
	02/06/02	NS	NS	NS	NS	NS	NS	• .	•
MW-2	07/30/99	1,200	<10	29	2.5	51	100	-	-
	11/09/99	1,300	<30	26	1.1	55	32	1	-
	02/23/00	5,000	<10	200	18	390	··· 440	-	_
	05/26/00	2,700	<10	69	13	83	68	-	-
	10/10/00	810	<10	17	4.7	42	46	-	-
	02/07/01	2,600	<10	70	15	80	100		-
	05/25/01	2,400	ND	75	16	85	100	-	-
	09/19/01	1,200	<5.0	10	9	46	55	-	-
	02/06/02	1,800	ND<50	14	11	58	59	-	-
MW-3	07/30/99	2,700	<10	220	15	130	230	_	_
2,12,11	11/09/99	3,100	15	440	9	150	96	_	<u>-</u> * .
	02/23/00	1,800	<15	180	11	82	79	_	_
	05/26/00	1,600	6.4	140	10	69	63	_ !	_
	10/10/00	1,100	ND<10	110	4.4	63	51	_ '	_
	02/07/01	1,100	ND<10	130	5.1	68	65		_
	05/25/01	1,200	ND<6.0	120	5.4	69	64] _	
	09/19/01	800	<5.0	78	3.5	52	37	_	l .
	02/06/02	1,100	ND<10	130	4.7	77	71	_	-
3.5337.4	07/20/00	340		57	2.2	0.5			Į Į
MW-4	07/30/99		<10	57	2.2	8.5	6.8	-	· •
	11/09/99 02/23/00	1,000 980	<10	220 260	ND	17	7.1	-	-
	05/26/00	760	ND 5.7	170	7 4.8	33 22	27 13	_	Ī -
	10/10/00	520	ND<10	130	2.3	22 22	10	_	1
	02/07/01	680	ND<8.0	180	3.7	22 29	21	1 .	_
	05/25/01	1,700	ND<10	510	9.6	44	46		<u> </u>
	09/19/01	680	ND<10	200	2.6	33	12		_
	02/06/02	710	ND<10 ND<15	220	2.8	40	21	:] .
/DE21 =	10//0/02		1					0.000	
TW-5	10/10/00	5,800	ND<50	650	60	190	230	2,900	<250
	02/07/01	720	ND	6.0	4.5	3.2	4.5	650	450
	05/25/01	370	ND	13.0	4.1	1.6	1.3	420	ND
	09/19/01 02/06/02	15,000 280	530 <5.0	29 2.3	2.7 0.74	14 <0.5	240 0.70	2,700,000 55,000	1,100,000 18,000
MDL	<u> </u>	50	5.0	0.5	0.5	0.5	0.5	50	250

MDL = Method Detection Limit

ND = Not detected above the Method Detection Limit (unless otherwise noted)

 μ g/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

NS = Not Sampled

APPENDIX A WELL FIELD SAMPLING FORMS

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM Monitoring Well Number: MW-1 Project Name: Omega Date of Sampling: 09/19/01 Job Number: 3190 Name of Sampler: OA Project Address: 807 75th Ave, Oakland MONITORING WELL DATA Well Casing Diameter (2"/4"/6") Seal at Grade -- Type and Condition Cement / Good Well Cap & Lock -- OK/Replace OK Elevation of Top of Casing (feet amsl) 5.00 Depth of Well (feet bgs) 20 Depth to Water (feet bgs) 5.51 Water Elevation (feet amsl) -0.51 Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 6.95 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) 7.0 Appearance of Purge Water Clear/slight hydrocarbon odor **GROUNDWATER SAMPLES** Number of Samples/Container Size 2 VOAs Vol Remvd Time PH Dissolved Redox Comments Temp Cond (gal) (deg C) (mS)Oxygen (mV) (DO) mg/L 11:45 0.07 11:47 6.57 1062 -85.6 18.85 19.18 1076 -88.6 11:49 3 6.58 0.04 11:51 5 18.97 6.56 1078 0.03 -83.0 7 -81.6 11:53 18.75 6.55 1084 0.03 COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM Monitoring Well Number: MW-2 Project Name: Omega Date of Sampling: 09/19/01 Job Number: 3190 Name of Sampler: OA Project Address: 807 75th Ave, Oakland MONITORING WELL DATA Well Casing Diameter (2"/4"/6") 2" Seal at Grade -- Type and Condition Cement / Good Well Cap & Lock - OK/Replace OK: Elevation of Top of Casing (feet amsl) 5.95 Depth of Well (feet bgs) 20 Depth to Water (feet bgs) 6.33 Water Elevation (feet amsl) -0.38 Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 6.56 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) 7.0 Appearance of Purge Water Clear; strong hydrocarbon odor **GROUNDWATER SAMPLES** Number of Samples/Container Size 2 VOAs Vol Remvd Temp PH Dissolved Redox Comments Time Cond (mS) Oxygen (mV) (gal) (deg C) (DO) mg/L 10:56 6.54 0.16 -110.6 10:58 20.58 873 1 11:00 3 21.04 6.52 879 0.08 -105.2 -113.6 11:02 5 20.42 6.54 878 0.04 -105.9 11:04 7 19.85 6.53 829 0.03 COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM Monitoring Well Number: MW-3 Date of Sampling: 09/19/01 Project Name: Omega Job Number: 3190 Name of Sampler: OA Project Address: 807 75th Ave., Oakland MONITORING WELL DATA Well Casing Diameter (2"/4"/6") 2" Seal at Grade -- Type and Condition Cement / Good Well Cap & Lock -- OK/Replace OK Elevation of Top of Casing (feet amsl) 4.66 Depth of Well (feet bgs) 20 Depth to Water (feet bgs) 5.07 Water Elevation (feet amsl) -0.41 Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 7.16 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) 7.5 Appearance of Purge Water Clear; slight hydrocarbon odor **GROUNDWATER SAMPLES** Number of Samples/Container Size 2 VOAs 5/B us/cm not mS Vol Remyd Cond Dissolved Time Temp PH Redox Comments (mV) (gal) (deg C) (mS)Oxygen (DO) mg/L 11:15 1339 0.11 -63.3 11:17 20.15 6.54 1 11:19 3 20.31 6.51 1371 0.06 -56.8 11:21 1389 0.03 -58.8 5 19.65 6.51 11:23 19.39 6.53 1354 0.03 -72.5 COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well DTW - Depth To Water

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM Monitoring Well Number: MW-4 Project Name: Omega Date of Sampling: 09/19/01 Job Number: 3190 Name of Sampler: OA Project Address: 807 75th Ave., Oakland MONITORING WELL DATA Well Casing Diameter (2"/4"/6") 2" Seal at Grade -- Type and Condition Cement / Good Well Cap & Lock -- OK/Replace OK Elevation of Top of Casing (feet amsl) 4.59 20 Depth of Well (feet bgs) Depth to Water (feet bgs) 5.16 Water Elevation (feet amsl) -0.57Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 7.12 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) 7.0 Appearance of Purge Water Clear; slight hydrocarbon odor **GROUNDWATER SAMPLES** Number of Samples/Container Size 2 VOAs Time Vol Remvd PH Cond Dissolved Redox Comments Temp (mV) (gal) (deg C) (mS)Oxygen 11:29 (DO) mg/L 0.28 11:31 19.71 6.54 1305 -5.8 0.29 -6.1 11:33 3 20.34 6.53 1301 11:35 19.70 6.49 1316 0.05 -6.2 5 -7.2 11:37 7 1320 19.43 6.46 0.03 COMMENTS (i.e., sample odor, well recharge time & percent, etc.) No hydrocarbon odor or sheen observed

TD - Total Depth of Well DTW - Depth To Water

AEI C	CONSULTAN			WATER MO LING FORM		WELL I	FIELD					
	Monitoring Well Number: TW-5											
Project Nan		• * .										
Job Number				Name of Sam	ipler: OA]				
Project Add	lress: 807 75 th A	ve., Oaklan	d		-			-				
	- -	MONI	TORI	NG WELL D	ATA			1				
	g Diameter (2"/4			4"	-]	ereter Territoria			
	de Type and C]	2.55			
	z Lock OK/Re			(?)]	V			
	f Top of Casing	(feet amsl)]				
	ell (feet bgs)			,								
Depth to W	ater (feet bgs)			6.59								
	ation (feet amsl)]	— 1 × 1 ± 1 = 1			
	Volumes (gallor]				
2" casir	ng: (TD - DTW)	(0.16)(3)]				
	ng: (TD - DTW)											
	ng: (TD - DTW)											
	ume Purged (gal			<u></u> -								
Appearance	e of Purge Water	<u>:</u>		Free floating	product/strong	hydrocarb	on odor	4	÷			
		GROU	J <u>NDW</u>	ATER SAMI				1				
Number of	Samples/Contain	ner Size		2 VOAs, 2 L	iter Amber Bot	tles]	÷			
Time 12:02	Vol Remvd (gal)	Temp (deg C)	PH	Cond (mS)	Dissolved Oxygen	Redox (mV)	Comments	_				
12:02	2	21.65	6.85	5 978	(DO) mg/L 0.13	-62.5	 	-				
12:05	4	21.65	6.82		0.15	-62.3 -59.4	+	-				
12:03	6	21.66	6.81		0.05	-57.4	+	-				
12:07												
	12:09 8 21:07 0.81 973 0.03 57:3 12:11 10 21.67 6.79 976 0.02 -55.7											
14.11	10	21.07		7 210	0.02	-33.7		†				
	COMMENT	ΓS (i.e., sam	ple ode	or, well rechar	rge time & perce	ent, etc.)						
]				

Monitoring Well Number: MW-1 Project Name: Omega Date of Sampling: 2/6/02 Job Number: 3190 Name of Sampler: OA Project Address: 807 75th Ave, Oakland MONITORING WELL DATA Well Casing Diameter (2"/4"/6") 2" Seal at Grade Type and Condition Cement / Good Well Cap & Lock OK/Replace OK Elevation of Top of Casing (feet amsl) 5.00 Depth of Well (feet bgs) 20.00 Depth to Water (feet bgs) Not Sampled Water Elevation (feet amsl) Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved (mV) (gal) (deg C) (mS) Oxygen (mV)	AEI (CONSULTAN				TER MO G FORM		WELL I	TIELD
Name of Sampler: OA			Monitor	ing W	ell N	lumber: 1	MW-1		
Name of Sampler: OA	Project Nar	ne: Omega			Dat	e of Sampl	ling: 2/6/02		
MONITORING WELL DATA	Job Numbe	r: 3190							
Well Casing Diameter (2"/4"/6") Seal at Grade Type and Condition Well Cap & Lock OK/Replace Elevation of Top of Casing (feet amsl) Depth of Well (feet bgs) Depth to Water (feet bgs) Water Elevation (feet amsl) Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd (gal) Vol Remvd (deg C) Vol Remvd (mS) Vol Redox Comme	Project Add	iress: 807 75 th .	Ave, Oaklan	d					
Well Casing Diameter (2"/4"/6") Seal at Grade Type and Condition Well Cap & Lock OK/Replace Elevation of Top of Casing (feet amsl) Depth of Well (feet bgs) Depth to Water (feet bgs) Water Elevation (feet amsl) Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd (gal) Vol Remvd (deg C) Vol Remvd (mS) Vol Redox Comme			MONI	TORI	ING	WELL DA	ATA	·	2
Seal at Grade Type and Condition Well Cap & Lock OK/Replace Elevation of Top of Casing (feet amsl) Depth of Well (feet bgs) Depth to Water (feet bgs) Water Elevation (feet amsl) Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size Time Vol Remvd (gal) (deg C) Vol Remvd (mS) Oxygen (mV) Purged (mS) Cement / Good OK Elevation of Ook Elevation of Casing (feet amsl) 5.00 Double Sampled For Casing: (TD - DTW)(0.16)(3) Appearance of Purge Water	Well Casin	g Diameter (2"/							· -
Well Cap & Lock OK/Replace Elevation of Top of Casing (feet amsl) Depth of Well (feet bgs) Depth to Water (feet bgs) Water Elevation (feet amsl) Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size Z VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)					Cer	nent / Goo	d		
Depth of Well (feet bgs) Depth to Water (feet bgs) Water Elevation (feet amsl) Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)					OK				
Depth to Water (feet bgs) Water Elevation (feet amsl) Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)					5.00	0		-	
Water Elevation (feet amsl) Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)					20.0	00			
Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)	Depth to W	ater (feet bgs)			Not	Sampled		•	er reg
2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)									
4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)									
6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)									
Actual Volume Purged (gallons) Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)									
Appearance of Purge Water GROUNDWATER SAMPLES Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)			 						
Caround Caro									
Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)	Appearance	e of Purge Wate	er						
Number of Samples/Container Size 2 VOAs Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)									
Time Vol Remvd Temp PH Cond Dissolved Redox Comme (gal) (deg C) (mS) Oxygen (mV)				JNDW			<u>LES</u>		
(gal) (deg C) (mS) Oxygen (mV)	Number of	Samples/Conta	iner Size		2 V	'OAs	··· <u> </u>		
(gal) (deg C) (mS) Oxygen (mV)					<u> </u>		T at 1	70 1	10
	Time			Pł	I	l	Oxygen		Comments
							L	<u> </u>	
COMMENTS (i.e. comple odor wall recharge time & parcent etc.)		COMMENT	TC (i.e. com		<u> </u>	all machana	ra tima fr nama	ent ato)	
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)	<u> </u>	COMMEN	13 (1.e., sam	hie oa	oi, W	en recharg	ge unie & perce	ш, еш.)	
									

TD - Total Depth of Well DTW - Depth To Water

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM Monitoring Well Number: MW-2 Date of Sampling: 2/6/02 Project Name: Omega Job Number: 3190 Name of Sampler: OA Project Address: 807 75th Ave, Oakland MONITORING WELL DATA Well Casing Diameter (2"/4"/6") 2" Seal at Grade -- Type and Condition Cement / Good Well Cap & Lock - OK/Replace OK Elevation of Top of Casing (feet amsl) 5.95 Depth of Well (feet bgs) 20.00 Depth to Water (feet bgs) 5.72 0.23 Water Elevation (feet amsl) Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 6.85 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) 7.0 Clear; strong hydrocarbon odor Appearance of Purge Water **GROUNDWATER SAMPLES** Number of Samples/Container Size 2 VOAs Vol Remvd PH Dissolved Redox Comments Time Temp Cond (mS) Oxygen (mV) (gal) (deg C) (DO) mg/L 10:44 17.82 6.56 891 0.41 10:46 1 10:48 3 16.99 6.62 912 0.33 10:50 17.49 6.63 915 0.22 5 10:52 7 17.92 6.64 878 0.16 COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM Monitoring Well Number: MW-3 Date of Sampling: 2/6/02 Project Name: Omega Job Number: 3190 Name of Sampler: OA Project Address: 807 75th Ave., Oakland MONITORING WELL DATA Well Casing Diameter (2"/4"/6") Seal at Grade -- Type and Condition Cement / Good Well Cap & Lock -- OK/Replace OK Elevation of Top of Casing (feet amsl) 4.66 Depth of Well (feet bgs) 20.00 Depth to Water (feet bgs) 4.69 Water Elevation (feet amsl) -0.03 Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 7.34 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) 7.5 Appearance of Purge Water Clear; hydrocarbon odor **GROUNDWATER SAMPLES** Number of Samples/Container Size 2 VOAs Vol Remyd PH Comments Time Temp Cond Dissolved Redox Oxygen (mV) (gal) (deg C) (mS)(DO) mg/L 10:55 1336 0.23 10:57 17.30 6.64 1 10:59 3 16.29 6.64 1355 0.18 1377 0.14 11:01 5 17.18 6.61 11:03 7.5 17.74 6.63 1370 0.11 COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM Monitoring Well Number: MW-4 Project Name: Omega Date of Sampling: 2/6/02 Job Number: 3190 Name of Sampler: OA Project Address: 807 75th Ave., Oakland MONITORING WELL DATA Well Casing Diameter (2"/4"/6") Seal at Grade -- Type and Condition Cement / Good Well Cap & Lock -- OK/Replace OK Elevation of Top of Casing (feet amsl) 4.59 20.00 Depth of Well (feet bgs) Depth to Water (feet bgs) 4.65 Water Elevation (feet amsl) -0.06Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 7.36 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) 7.5 Appearance of Purge Water Clear; slight hydrocarbon odor **GROUNDWATER SAMPLES** Number of Samples/Container Size 2 VOAs Vol Remvd Time Temp PH Cond Dissolved Redox Comments (gal) (deg C) (mS)Oxygen (mV) 11:10 (DO) mg/L 1370 11:15 17.71 6.69 0.61 11:17 3 17.04 6.65 1330 0.61 11:19 5 17.69 6.61 1381 0.21 11:21 1400 0.12 18.06 6.58 COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WEŁL FIELD SAMPLING FORM Monitoring Well Number: TW-5 Project Name: Omega Date of Sampling: 2/6/02 Job Number: 3190 Name of Sampler: OA Project Address: 807 75th Ave., Oakland MONITORING WELL DATA Well Casing Diameter (2"/4"/6") Seal at Grade -- Type and Condition Well Cap & Lock -- OK/Replace Elevation of Top of Casing (feet amsl) Depth of Well (feet bgs) Depth to Water (feet bgs) 5.3 Water Elevation (feet amsl) Three Well Volumes (gallons)* 2" casing: (TD - DTW)(0.16)(3) 4" casing: (TD - DTW)(0.65)(3) 6" casing: (TD - DTW)(1.44)(3) Actual Volume Purged (gallons) Appearance of Purge Water Strong hydrocarbon odor/Viscous Sheen **GROUNDWATER SAMPLES** 2 VOAs, 2 Liter Amber Bottles Number of Samples/Container Size Vol Remvd PH Dissolved Redox Comments Time Temp Cond (mS)Oxygen (mV) (gal) (deg C) (DO) mg/L 11:25 11:27 14.68 6.98 735 0.91 11:29 4 14.65 6.95 733 0.41 0.10 11:31 6 14.62 6.93 727 11:33 8 14.60 6.92 724 0.06 10 6.91 724 0.05 11:35 14.60 COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

[02] Solubility Consultat w/ > [02] in colder water.

APPENDIX B

LABORATORY ANALYTICAL AND CHAIN OF CUSTODY DOCUMENTATION

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone: 925-798-1620 Fax: 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #3190; OMEGA	Date Sampled: 09/19/01							
3210 Old Tunnel Road, Suite B		Date Received: 09/19/01							
Lafayette, CA 94549-4157	Client Contact: Orion Alcalay	Date Extracted: 09/23-09/25/01							
	Client P.O;	Date Analyzed: 09/23-09/25/01							
Casaline Panga (C6 C12) Valetile Hydrogorbons on Carelinet with Mathedated P. 4 1 Feb. + 2 propyrt									

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	Ethyl- benzene	Xylenes	% Recovery Surrogate
78884	MW-1	w	840,a	ND	190	4.0	4.6	5.3	104
78885	MW-2	W	1200,a	ND	10	8.5	46	55	#
78886	MW-3	W	800,a	ND	78	3.5	52	37	110
78887	MW-4	w	680,a	ND<10	200	2.6	33	12	#
78888	TW-5	w	15,000,g,h	★ ⁵³⁰	29	2.7	14	240	101
									
				\$ 802	o ar 60%	- nu	8260	· · · · ·	
			_						
				ļ <u>.</u>					
otherw	ng Limit unless ise stated; ND	W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
means not detected above the reporting limit		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

^{*}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.



[#] cluttered chromatogram; sample peak coelutes with surrogate peak

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone: 925-798-1620 Fax: 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

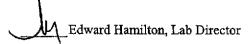
All Environmental, Inc.	Client Project ID: #3190; OMEGA	Date Sampled: 09/19/01
3210 Old Tunnel Road, Suite B		Date Received: 09/19/01
Lafayette, CA 94549-4157	Client Contact: Orion Alcalay	Date Extracted: 09/19/01
	Client P.O:	Date Analyzed: 09/20/01
Diesel Pange (C10 C22) and	Oil Borgo (C194) E-two-table II	

Diesel Range (C10-C23) and Oil-Range (C18+) Extractable Hydrocarbons as Diesel and Motor Oil* EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID Client ID 78888 TW-5		Matrix	TPH(d) ⁺	TPH(mo) ⁺	% Recovery Surrogate
		w	2,700,000,a,h	1,100,000	113
		-			+
:					
					-
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		w	50 ug/L	250 ug/L	
		S	1.0 mg/kg	5.0 mg/kg	

^{*}water 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

^{*}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.



^{*} 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.

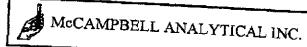
27840 Zale 437 McCAMPBELL ANALYTICAL INC. CHAIN OF CUSTODY RECORD 110 2nd AVENUE SOUTH, #D7 TURN AROUND TIME PACHECO, CA 94553 24 HOUR 48 HOUR RUSH 5 DAY Fax: (925) 798-1622 Telephone: (925) 798-1620 Report To: Orion Alcalay Bill To: Analysis Request Other Comments Company: All Environmental Grease (5520 E&F/B&F) 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157 EPA 625 / 8270 / 8310 Total Petroleum Hydrocarbons (418.1) Tele: (925) 283-6000 Fax: (925) 283-6121 Project #: 3/90 Project Name: Office BTEX ONLY (EPA 602 / 8020) Project Location: 207 EPA 608 / 8080 PCB's ONLY Lead (7240/7421/239.2/6010) Sampler Signature: EPA 624 / 8240 / 8260 Total Petroleum Oii & METHOD TPH as Diesel (8015) SAMPLANG **MATRIX** PRESERVED PAH's / PNA's by CAM-17 Metals EPA 601 / 8010 EPA 608 / 8080 EPA 625 / 8270 LUFT 5 Metals # Containers BTEX & TPH as LOCATION SAMPLE ID Sludge Date Time HICI Officer Water Soil Ā <u>5</u> ă 2 9-19-0 7710-1 78884 2 2 78885 2 X 78886 78887 78888 Received By: VOAS O&G METALS OTHER MBrownfield Date: Time: Remarks: -15-01 2:11 PRESERVATION Date: Time: APPROPRIATE

Time:

Date:

Relinguished By:

Received By:



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone: 925-798-1620 Fax: 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.		Client Pr	Client Project ID: #3190; Omega				Date Sampled: 02/06/02		
3210 Old Tunnel Road, Suite B							B	Date Received: 02/06/02	
Lafayett	c, CA 94549-	4157	Client Co	ontact: Orio	n Alcalay				6-02/11/02
			Client P.				Day		
Gasolin	i e Range (C6 ods 5030, modifi	-C12) V	olatile Hydro	carbons a	s Gasoline	*. with M		lyzed: 02/0	6-02/11/02
Lah (D	ds 5030, modifie Client ID	1		alifomia RW	QCB (SF Bay	Region) me	thod GCFID(SC	ntài Fiuel.	* & BTEX*
89680	·	-	1 LIV(R)	MTBE	Benzene	Toluene	Ethyl- benzene	Xylenes	% Recovery Surrogate
	MW-2	W	1800,a	ND<50	. 14	11	58	59	116
89681	MW-3	W	1100,a	ND<10	130	4.7	77	71	119
89682	MW-4	w	710,a	ND<15	220	2.8	40	21	, h
89683	TW-5	W	280,g	מא	2.3	0.74	ND	0.70	104
	· · · · · · · · · · · · · · · · · · ·					-			
									· • • • • • • • • • • • • • • • • • • •
						. =			
									
		-							
Reporting I	imit unless	w	50 ug/L	5.0	0.5	0.5	0.5	0.5	
scans not detected above		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

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?; c) 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.

Edward Hamilton, Lab Director

^{*} eluttored chromatogram; sample peak coclutes with surrogate peak



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone: 925-798-1620 Fax: 925-798-1622
http://www.mccampbell.com/E-mail: main@mccampbell.com/

1	•						
All Environs		Client I	roject ID: #3190; On	nega D	Date Sampled: 02/06/02 Date Received: 02/06/02 Date Extracted: 02/06/02		
ť	innel Road, Suite	B		D			
Lafayette, C.	A 94549-4157	Client C	ontact: Orion Alcala				
Discol D		Client P			ta Anata t	20.10.4	
EPA methods m	inge (C10-C23) a	nd Oil-Ran	ge (C18+) Extractab				
Lab (D	Client ID		(0.00) 10	gion) method GCFI	D(3550) or GCF	D(3510)	
	Onem 1D	Matrix	TPH(d)+	TPH(n	10)	% Recovery	
89683	TW-5	W	55,000,a	18,00	00	Surrogate 100	
				 			
							
				<u> </u>			
							
1							

50 ug/L

1.0 mg/kg

[&]quot;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) one to a few isolated peaks present; g) oil range compounds are significant; c) medium boiling point pattern that does not match diesel (?); f) sample that contains greater than ~5 vol. % sediment.



Reporting Limit unless otherwise

stated; ND means not detected above the reporting limit

W

S

250 ug/L

5.0 mg/kg

^{*}water 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.