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Alameda County Environmental Health

May 14, 2008

Mr. Jerry Wickham Hazardous Material Specialist Alameda Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 84502

Re: 2<sup>nd</sup> Quarter Groundwater Monitoring Report 2008

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Regards,

Allen G. Kanady, Jr. President Omega Termite Control, Inc.

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April 23, 2008

## GROUNDWATER MONITORING REPORT Second Quarter, 2008

807 75th Avenue Oakland, California

AEI Project No. 262157 ACHCS # RO0000508

Prepared For

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

Prepared By

AEI Consultants 2500 Camino Diablo Blvd. Walnut Creek, CA 94597 (925) 944-2899



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April 23, 2008

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

Subject: Quarterly Groundwater Monitoring Report Second Quarter, 2008 807 75th Avenue Oakland, California AEI Project No. 262157 ACHCS # RO0000508

Dear Mr. Kanady:

AEI Consultants (AEI) has prepared this report to document the results of the Second Quarter, 2008 groundwater monitoring event 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 near the location of previously removed underground storage tanks (USTs) at the site.

#### Site Description and Background

The site is located in an industrial area of the City of Oakland, on the northern corner of the intersection of 75<sup>th</sup> Avenue and Snell Street, just east of San Leandro Street. The property is approximately 10,000 square feet in size and currently developed with two buildings, occupied by Omega Termite.

On September 15, 1996, AEI removed three (3) gasoline USTs from the subject property. The tanks consisted of one 8,000-gallon UST, one 1,000-gallon UST, and one 500-gallon UST. The former locations of the tanks are shown on Figure 2. Soil and groundwater samples collected during the tank removal activities revealed that a release had occurred from the tank system. Total petroleum hydrocarbons as gasoline (TPH-g), benzene, and methyl tertiary butyl ether (MTBE) were detected in the soil samples at concentrations up to 4,300 mg/kg, 13 mg/kg, and 25 mg/kg, respectively.

In October 1997, soil and groundwater samples were collected from six (6) soil borings (BH-1 through BH-6). In June 1999, four (4) groundwater monitoring wells (MW-1 through MW-4) were also installed by AEI. The construction details for the groundwater monitoring wells on site are

summarized in Table 1. Monitoring well locations are shown on Figure 2. Historical groundwater elevation and historical groundwater sample analytical data are presented in Tables 2 and 3.

Under the direction of the ACHCSA, additional soil was removed from the excavation in March 2000. The excavation was extended to 29 by 48 feet in size and 8 feet deep at the east end of the excavation and 11.5 at the west end. During the excavation activities, an additional 500-gallon UST was discovered at the eastern end of the excavation. This tank was removed under the direction of Oakland Fire Services Agency (OFSA). Six additional soil samples were collected from the sidewalls and bottom of the excavation.

The resulting excavation was then backfilled with pea gravel to bridge the water table, with the remainder of the excavation being filled with the previously aerated soil and later with imported fill. The newly excavated soil was stockpiled on the northern portion of the property. A total of 7,400 gallons of hydrocarbon-impacted groundwater were pumped from the excavation, treated on-site, and discharged to the sanitary sewer system under an East Bay Municipal Utility District permit.

On October 9 and 10, 2003, AEI drilled seven temporary Geoprobe® boreholes (SB-7 through SB-13) to depths ranging from 15 to 20 feet bgs to further delineate the lateral extent of contamination in the Shallow aquifer. One borehole, SB-14 was advanced to a depth of 30 feet bgs to determine if the second aquifer at the site had been impacted. Soil samples were collected in the vadose zone above the first aquifer and from the aquitard between the first and second aquifers. The results of chemical analyses of soil samples collected and analyzed during this investigation and earlier investigations appear to have effectively defined the limits of impacted soil in the vadose zone. A significant amount of impacted soil appears remain in the immediate vicinity of boring SB-14.

The analysis of the water sample from the second aquifer (Soil Boring SB-14, 28 feet bgs) reported TPH-g, TPH-d, MTBE and benzene at concentrations of 2,300  $\mu$ g/L, 72,000  $\mu$ g/L, 45  $\mu$ g/L and 120 ug/L, respectively. Light non-aqueous phase liquid was observed on the sampler and in the water sample.

On February 15 and February 16, 2006, AEI advanced five soil borings (MW-6 through MW-10) on the site, and completed the borings as groundwater monitoring wells. The Monitoring wells were drilled with a Marl 2.5 D drilling rig. Shallow Zone well MW-6 and Deeper Zone wells MW-7 through MW-10, were drilled with nominal 8-inch diameter hollow stem augers and completed as 2" groundwater monitoring wells. The details of the well completions are summarized in Table 1.

These and existing well were sampled on March 13, 2006. Maximum concentrations of TPH-g, TPH-d, and TPH-mo reported from the Shallow Zone were 3,200  $\mu$ g/L (MW-1), 2,400  $\mu$ g/L (MW-2), and 320  $\mu$ g/L (MW-1), respectively. The maximum concentrations of benzene reported was 1,400  $\mu$ g/L in MW-1.

Maximum concentrations of TPH-g, TPH-d, and TPH-mo reported from the Deeper Zone were 1,100  $\mu$ g/L, 14,000  $\mu$ g/L, and 4,100  $\mu$ g/L, respectively in MW-9 with the notation of light

immiscible hydrocarbons present in the sample. The maximum concentration of benzene reported was  $85 \ \mu g/L$  in MW-9.

The results of this investigation are summarized in *Deeper Aquifer Soil and Groundwater Investigation Report*, April 28, 2006.<sup>(7)</sup>

In a letter dated May 25, 2006, the ACHCSA requested a work plan for installation and pilot testing of the ozone sparging system recommended by AEI. The *Well and Ozone Micro-Sparge System Installation Work Plan*<sup>(8)</sup> was approved by the ACHCSA in a letter dated August 11, 2006. The Ozone Micro-Sparge System was installed during February and March and began continuous operation in early May 2007.

### Geology and Hydrology

The site is located at an elevation approximately 11 feet above mean sea level (msl). The site is essentially flat; however, the general topography of the area slopes gently to the west. The surface sediments at the site are mapped as Holocene natural levee and basin deposits (Qhl and Qhb, OF 97-97, E.J. Helley and R.W. Graymer). The Natural Levee Deposits (Holocene) are described as "loose, moderately to well-sorted sandy or clayey silt grading to sandy or silty clay". The Basin Deposits (Holocene) are described as "very fine silty clay to clay deposits occupying flat-floored basins at the distal edge of alluvial fans adjacent to the bay mud (Qhbm)". The presence of gravels in several of the onsite soil borings indicates that stream channel deposits are also present.

Based on the soil borings advanced by AEI, the near surface sediments beneath the site can be divided into several water bearing zones which are separated by clay layers. Sediments immediately below the surface consist of black to gray brown to olive brown silty clay depths ranging from 7.5 to 10 feet bgs. No groundwater was encountered during drilling of this interval.

The surface clay is underlain by variable and somewhat discontinuous silty sand and clayey silt, which make up the Shallow Zone. The Shallow Zone extends from the base of the surface clay to depths ranging from 18 to 21 feet bgs. This zone has low to medium permeability. Groundwater is typically seen in the first permeable silt or sand encountered during drilling of this interval. Once encountered, groundwater level typically stabilizes at a depth of 5 feet bgs or less, indicating the zone is at least a semi-confined aquifer.

The Shallow Zone is underlain by several feet of moderately dry light olive brown to yellowish brown clay, except in MW-7, drilled through the former tank hold, in which the clay exhibited significant discoloration (dark greenish gray clay).

At depths ranging from 18 ft (MW-9) to 21 feet (MW-8) bgs second (intermediate) discontinuous water bearing zone (Intermediate Zone) is present. The Intermediate Zone consists of discontinuous gravel, clayey gravel, and silty sand, clayey sand, and clayey silt which are interbedded with clay layers. Permeability in the Intermediate Zone ranges from high (gravel) to poor (clayey silt). The

Intermediate Zone is separated from the Deeper Zone by a layer of brown silty clay that ranges in thickness of 2 to 7 feet.

A third water bearing zone (Deeper Zone) was encountered at a depth of approximately 27 to 28 feet bgs. The lower permeable zone is made up of clayey silt, clayey sand, clean sand and sandy gravel.

#### **Summary of Activities**

AEI conducted quarterly groundwater sampling and monitoring of five Shallow Zone monitoring wells (MW-1 through MW-4 and MW-6) and six deeper Zone wells (MW-7 through MW-12) on March 25, 2008.

Prior to measuring the depth to water, the well caps were removed and the water levels in each well were allowed to equilibrate with atmospheric pressure for at least 15 minutes. The depth to groundwater (from the top of the well casings) for each well was then measured with an electric water level indicator. A peristaltic pump was used to purge all wells on site. Wells MW-1 through MW-6 were purged with the sampling tubing at a depth of approximately 11 feet below ground surface (bgs) and wells MW-7 through MW-12 were purged with the sampling tubing at a depth of approximately 26 feet bgs. During purging activities, the groundwater parameters: temperature, pH, specific conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured. A visual evaluation of turbidity was made and noted. Groundwater parameters measured in the field are reported on the field sampling forms included in Appendix A.

Following stabilization of groundwater parameters, groundwater samples were collected using the peristaltic pump bailers and placed into 40-milliliter (ml) Volatile Organic Analysis (VOA) vials and 1-liter amber bottles. The VOAs were filled so that no headspace or air bubbles were visible within the sample containers. Samples were transported in a cooler on ice under appropriate chain-of-custody protocol to McCampbell Analytical, Inc. of Pacheco, California (Department of Health Services Certification #1644).

Groundwater samples from the wells were analyzed for TPH-g, MTBE, benzene, toluene, ethyl benzene, xylenes (MBTEX), by SW8021B/8015Cm, and TPH-d (as diesel) and TPH-mo (as motor oil) by SW8015C.

### **Field Results**

Groundwater elevations in the Shallow Zone monitoring wells ranged from 5.68 (MW-1) to 5.81 (MW-3) feet above mean sea level (amsl). These elevations are an average of 0.45 feet lower than the previous quarterly monitoring event. The groundwater hydraulic gradient in the Shallow Zone is 0.003 ft/ft to the southwest.

Groundwater elevations in the Deep Zone monitoring wells ranged from 6.09 (MW-9) to 6.90(MW-11) feet amsl. These elevations are an average of 0.27 feet lower than the previous quarterly monitoring event. The groundwater hydraulic gradient in the Deep Zone is 0.048 ft/ft to the south southeast.

Current and historical groundwater elevation data are summarized in Tables 3 and 3a. The groundwater elevation contours and the groundwater flow directions are presented in Figures 3 and 4. Groundwater Monitoring Well Field Sampling Forms are presented Appendix A.

### **Groundwater Quality**

TPH-g and BTEX concentrations in Shallow Zone monitoring well MW-1 decreased from 4,400  $\mu$ g/L to 980  $\mu$ g/L and from 560  $\mu$ g/L to 450  $\mu$ g/L. BTEX was reported at concentrations of 270  $\mu$ g/L, 1.4  $\mu$ g/L, 6.6  $\mu$ g/L, and 13  $\mu$ g/L respectively. MTBE and TPH-mo were reported at ND<250  $\mu$ g/L and 260 $\mu$ g/L, respectively.

TPH-g and TPH-d concentrations in Shallow Zone monitoring well MW-2 decreased from 2,200  $\mu$ g/L to 420  $\mu$ g/L and from 3,200  $\mu$ g/L to 300  $\mu$ g/L respectively. BTEX was reported at concentrations of 1.1  $\mu$ g/L, 5.1  $\mu$ g/L, 0.80  $\mu$ g/L, and 3.6  $\mu$ g/L respectively. TPH-mo and MTBE were reported as non detectable at their respective reporting limits.

TPH-g and TPH-d concentrations in Shallow Zone monitoring well MW-3 decreased from 470  $\mu$ g/L to ND<50  $\mu$ g/L and from 200  $\mu$ g/L to 63  $\mu$ g/L, respectively. TPH-m-o, MTBE and BTEX were reported as non detectable at detection limits of 250  $\mu$ g/L, 5.0  $\mu$ g/L, and 0.50  $\mu$ g/L, respectively.

TPH-g concentration in Shallow Zone monitoring well MW-4 decreased from 100  $\mu$ g/L to ND<50  $\mu$ g/L. TPH-d, TPH-mo, MTBE, and BTEX concentrations were reported as non detectable at detection limits of 50  $\mu$ g/L, 250  $\mu$ g/L, 5.0  $\mu$ g/L, and 0.5  $\mu$ g/L, respectively.

TPH-d and ethylbenzene concentrations in Shallow Zone monitoring well MW-6 decreased to below reporting limits of 50  $\mu$ g/L and 0.5  $\mu$ g/L. TPH-g, TPH-mo, MTBE, benzene, toluene, and xylenes concentrations all remained below standard laboratory detection levels.

TPH-g, TPH-d, TPH-mo, MTBE, and BTEX, concentrations in Deep Zone monitoring wells MW-7 and MW-8 remained below standard laboratory detection limits.

TPH-g, TPH-d, and MTBE concentrations in MW-9 increased from 250  $\mu$ g/L, 160  $\mu$ g/L, and ND<5.0  $\mu$ g/L to 740  $\mu$ g/L, 210  $\mu$ g/L, and 10  $\mu$ g/L, respectively. BTEX concentrations increased to 290  $\mu$ g/L, 1.5  $\mu$ g/L, 2.6  $\mu$ g/L, and 16  $\mu$ g/L, respectively. TPH-mo remained below the reporting limit of 250  $\mu$ g/L.

The TPH-g concentration in Deep Zone monitoring well MW-10 increased from 79  $\mu$ g/L to 340  $\mu$ g/L, while TPH-d decreased from 220  $\mu$ g/L to 82  $\mu$ g/L. MTBE, and BTEX were reported at ND<5.0  $\mu$ g/L, 0.95  $\mu$ g/L, ND>0.5  $\mu$ g/L, ND>0.5  $\mu$ g/L, and 1.1  $\mu$ g/L, respectively.

TPH-g, TPH-d, TPH-mo, MTBE and BTEX all remained below standard laboratory detection levels in Deeper Zone monitoring wells MW-11 and MW-12.

A summary of groundwater analytical data is presented in Table 2 and Figure 5. TPH-g contaminant isopleths of the Shallow Zone wells is presented in Figures 6. Laboratory results and chain of custody documents are included in Appendix B.

#### Summary

Overall the contaminant concentrations in the Shallow Zone monitoring wells are continuing on an overall downward trend, further indication that the operation of the ozone injection system is having a significant effect on hydrocarbon concentrations.

There was a slight increase in contamination concentrations in the Deep Zone monitoring wells MW-9 and MW-10. Hydrocarbon concentrations in MW-9 are within historic ranges. The increase in TPH-g in well MW-10 which is accompanied with the laboratory notation "one to a few non target peaks present" and a decrease in TPH-d concentration may not represent a real significant increase in total hydrocarbon concentrations.

The next quarterly groundwater monitoring event is tentatively scheduled for July 2008.

#### **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 geologic, environmental engineering and construction fields that existed at the time and location of the work.

Please contact Robert F. Flory at (925) 944-2899 extension 122, if you have any questions regarding the findings and recommendations included in this report.

Sincerely, **AEI Consultants** 

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### Attachments

### Figures

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Groundwater Elevation Contours – Shallow Zone (3/25/08)
Figure 4	Groundwater Elevation Contours – Deeper Zone (3/25/08)
Figure 5	Analytical Results (3/25/08)
Figure 6	TPH-g Shallow Zone Isopleths (3/25/08)
Figure 7	TPH-g Deeper Zone Isopleths (3/25/08)

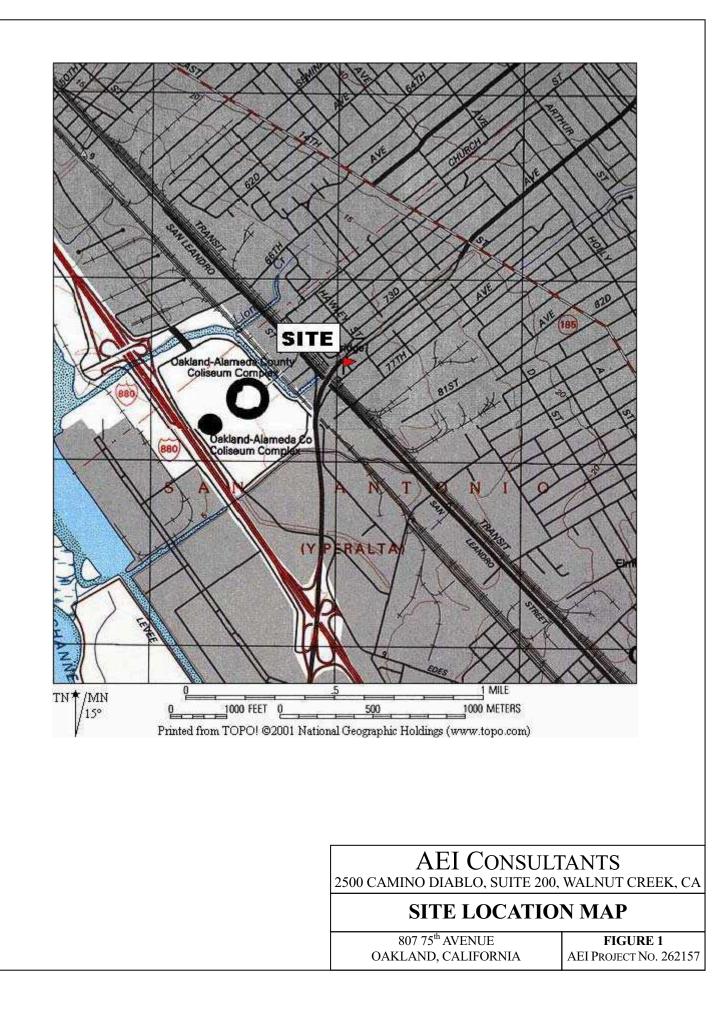
### Tables

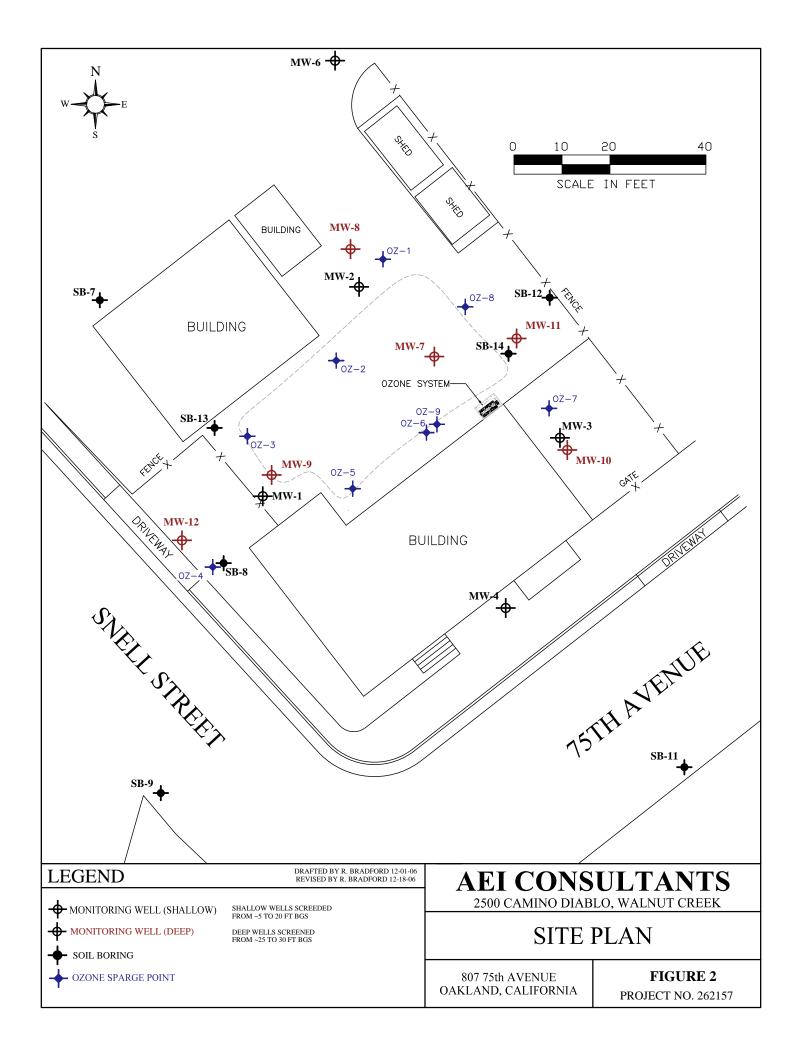
Table 2	Groundwater Analytical Data
Table 3	Groundwater Elevation and Flow Direction Summary
	Groundwater Monitoring Well Field Sampling Forms Laboratory Analytical Documentation and Chain of Custody Documentation

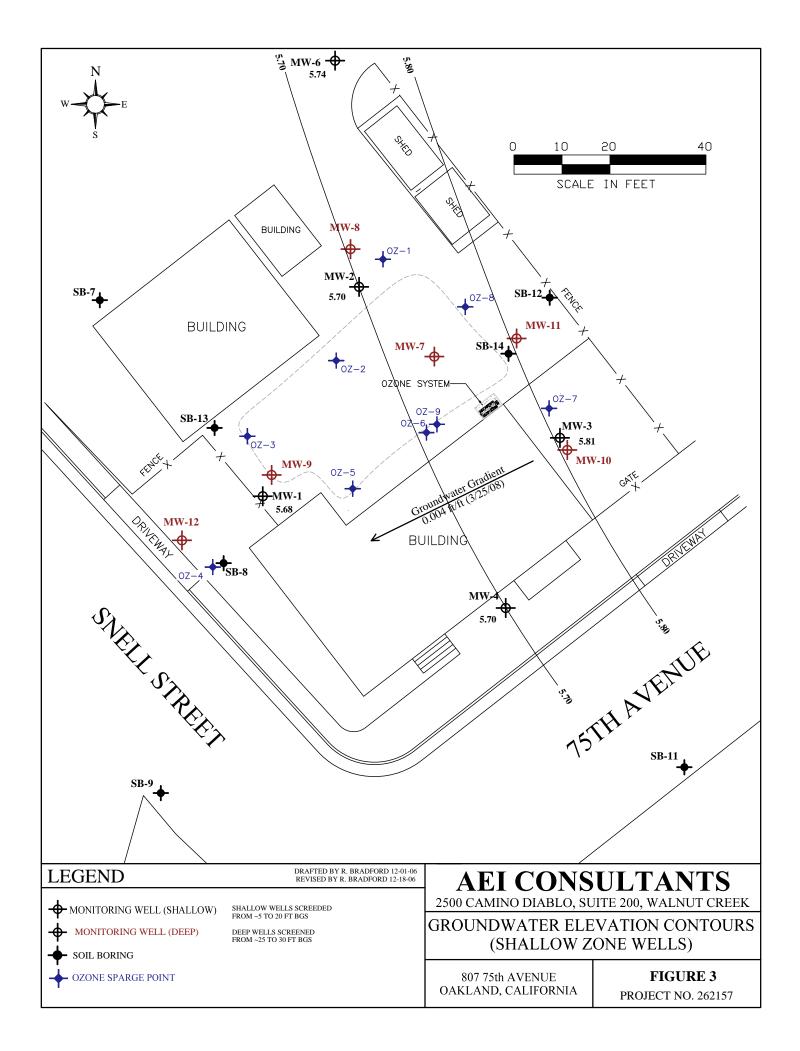
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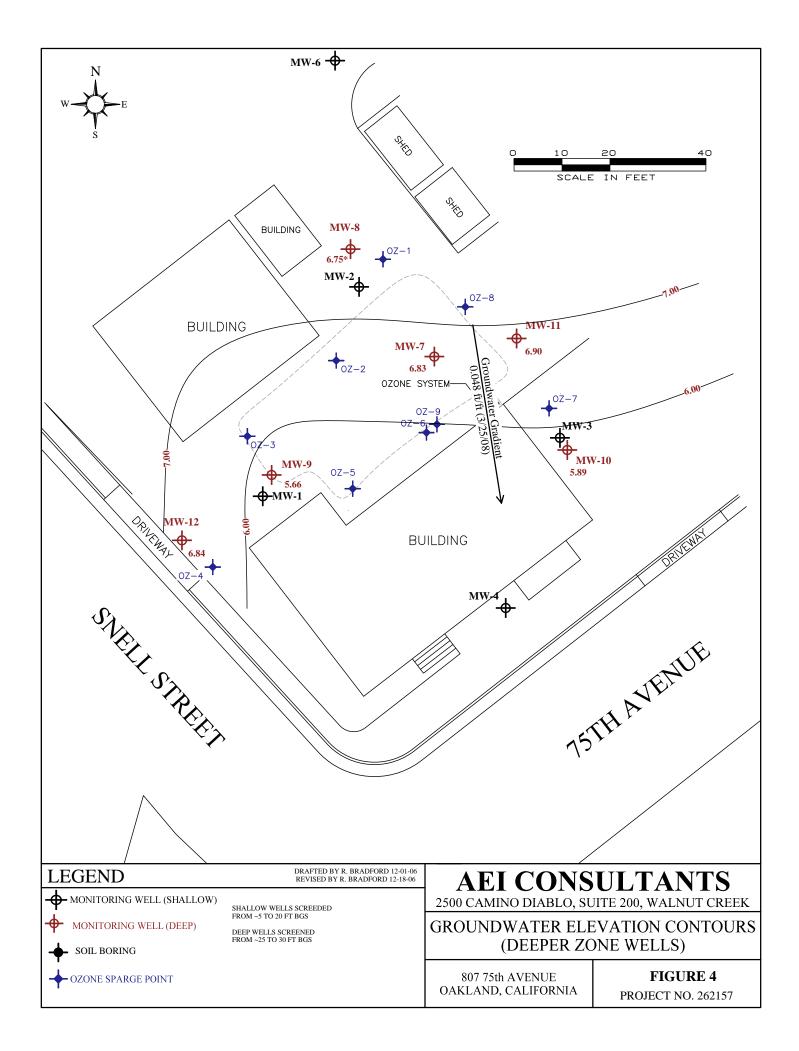
Mr. Allan Kanady Omega Termite 807 75th Avenue Oakland, CA 95621	(2 copies)
Mr. Jerry Wickham Alameda Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502	electronic
Betty Graham San Francisco Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland CA 94612	electronic
GeoTracker	

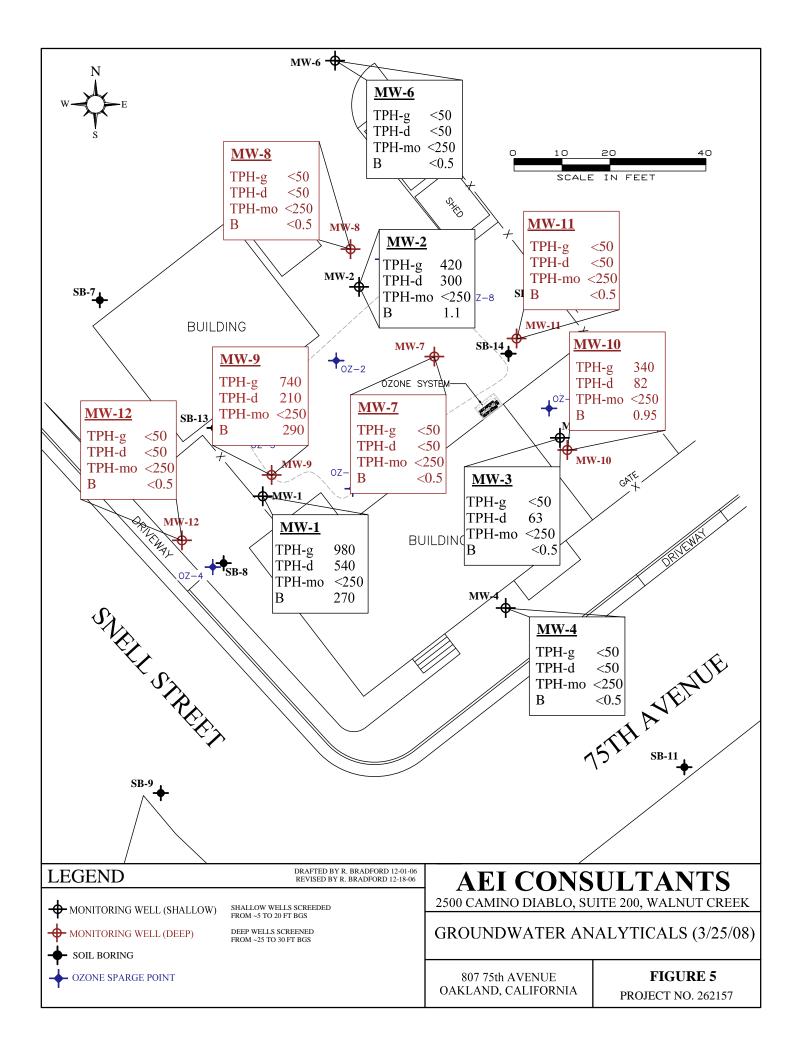
**FIGURES** 

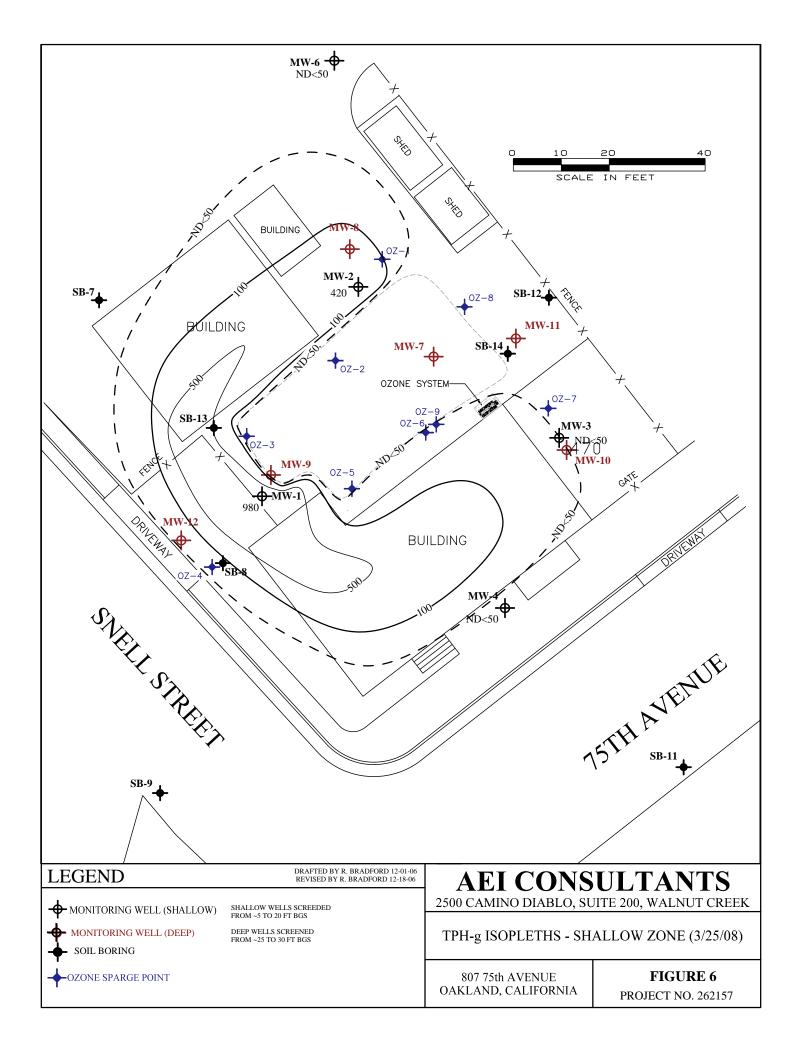


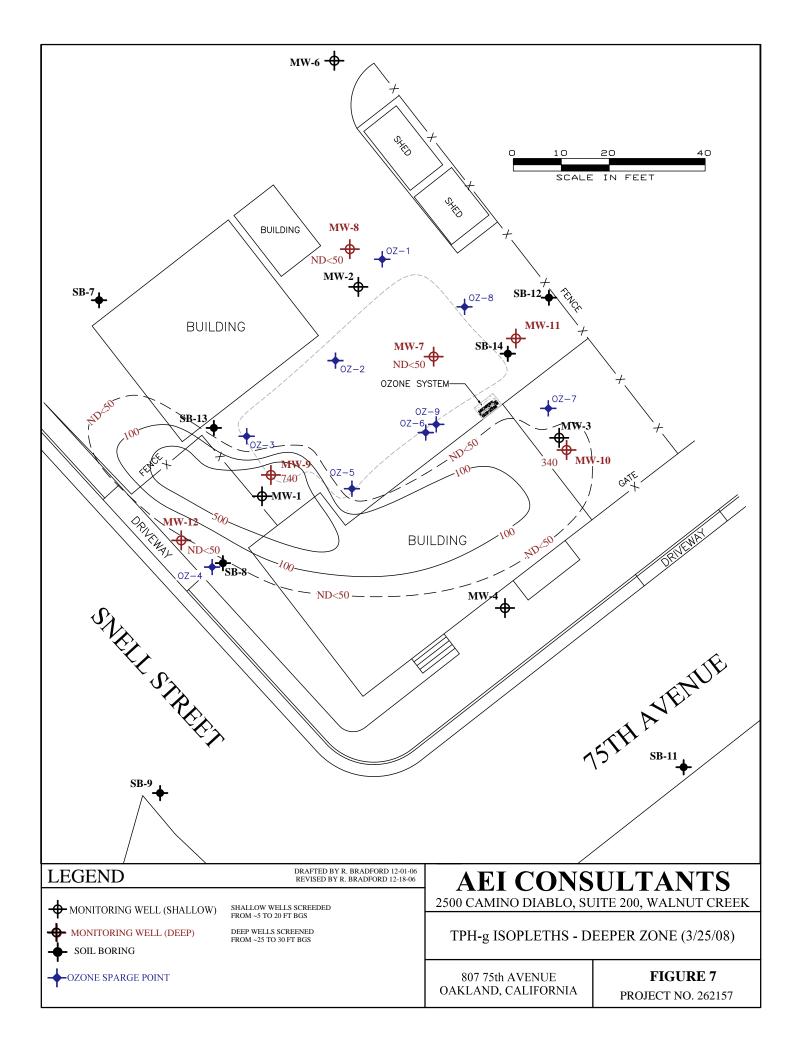












TABLES

Well ID	Date Installed	Box Elevation	Top of Casing	Water Depth	Casing Material	Total Depth	Well Depth	Borehole Diameter	Casing Diameter	Screened Interval	Slot Size	Filter Pack Interval	Filter Pack Material	Bentonite Seal	Grout Seal
		(feet)	(feet)	(1/02/07)		(feet)	(feet)	(inches)	(inches)	(feet)	(inches)	(feet)	(feet)	(feet)	(feet)
MW-1	06/25/99	11.28	10.68	5.00	PVC	20	20	8 1/4	2	20.0-5.0	0.020	20.0-3.5	#3 sand	3.5-2.5	2.5-0.5
MW-2	06/25/99	12.55	12.15	6.45	PVC	20	20	8 1/4	2	20.0-5.0	0.020	20.0-3.5	#3 sand	3.5-2.5	2.5-0.5
MW-3	06/25/99	10.67	10.40	4.59	PVC	20	20	8 1/4	2	20.0-5.0	0.020	20.0-3.5	#3 sand	3.5-2.5	2.5-0.5
MW-4	06/25/99	10.56	10.31	4.61	PVC	20	20	8 1/4	2	20.0-5.0	0.020	20.0-3.5	#3 sand	3.5-2.5	2.5-0.5
TW-5	March 2000	Abandoned	12/20/06			10	10	NA	4	10.0-5.0	1/4" drilled	NA	NA	NA	2.0-0.5
MW-6	02/15/06	12.74	12.35	6.61	PVC	14	14	8 1/4	2	14.0-5.0	0.010	14.0-4.5	# 2/12	4.5-3.5	3.5-0.5
MW-7	02/16/06	11.64	11.16	4.33	PVC	33	33	8 1/4	2	33.0-26.0	0.010	33.0-25.0	# 2/12	25.0-23.0	23.0-0.5
MW-8	02/15/06	12.57	12.42	5.67	PVC	31	31	8 1/4	2	31.0-26.0	0.010	31.0-25.0	# 2/12	25.0-23.0	23.0-0.5
MW-9	02/16/06	11.41	11.22	5.56	PVC	30	30	8 1/4	2	30.0-25.0	0.010	30.0-24.0	# 2/12	24.0-22.0	22.0-0.5
MW-10	02/15/06	10.60	10.31	4.42	PVC	30	30	8 1/4	2	30.0-25.0	0.010	30.0-24.0	# 2/12	24.0-22.0	22.0-0.5
MW-11	12/18/06	11.14	10.96	4.06	PVC	35	35	8 1/4	2	35.0-25.0	0.010	35.0-23.0	# 2/12	23.0-21.0	21.0-0.5
MW-12	12/18/06	11.19	10.46	3.62	PVC	35	35	8 1/4	2	35.0-25.0	0.010	35.0-23.0	# 2/12	23.0-21.0	21.0-0.5

# Table1:Monitoring Well Construction DetailsOmega Termite, 807 75th Ave., Oakland, CA

Well ID	Date Installed	Injection Point	Casing Material	Total Depth (feet)		Borehole Diametei (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material (feet)	Bentonite Seal (feet)	Grout Seal (feet)
OZ-1	12/21/06	Single point Shallow	PVC	19.5	19.5	8 1/4	1	19.5-18.0	micropore	19.5-9.0	#2/16	16.0-2.0	2.0-1.0
OZ-2	12/19/06	Shallow Point Deep Point	PVC	35	19.5 34	10 1/2	1 1	19.5-18.0 34.0-32.5	micropore micropore	19.5-16.0 35.0-30.0	#2/16 #2/16	16.0-2.0 30.0-19.5	2.0-1.0
OZ-3	12/19/06	Shallow Point Deep Point	PVC	35	15 34	10 1/2	1 1	15.0-13.5 34.0-32.5	micropore micropore	16.0-12.0 35.0-30.0	#2/16 #2/16	12.0-2.0 30.0-16.0	3.0-1.0
OZ-4	12/19/06	Shallow Point Deep Point	PVC	35	15 34	10 1/2	1 1	15.0-13.5 34.0-32.5	micropore micropore	16.0-12.0 35.0-30.0	#2/16 #2/16	12.0-2.0 30.0-16.0	2.0-1.0
OZ-5	12/21/06	Shallow Point Deep Point	PVC	35	15 34	10 1/2	1 1	15.0-13.5 34.0-32.5	micropore micropore	16.0-12.0 35.0-30.0	#2/16 #2/16	12.0-2.0 30.0-16.0	2.0-1.0
OZ-6	12/21/06	Shallow Point Deep Point	PVC	35	15 34	10 1/2	1 1	15.0-13.5 34.0-32.5	micropore micropore	16.0-12.0 35.0-30.0	#2/16 #2/16	12.0-2.0 30.0-16.0	2.0-1.0
OZ-7	12/20/06	Shallow Point Deep Point	PVC	35	15 34	10 1/2	1 1	15.0-13.5 34.0-32.5	micropore micropore	16.0-12.0 35.0-30.0	#2/16 #2/16	12.0-2.0 30.0-16.0	2.0-1.0
OZ-8	12/20/06	Shallow Point Deep Point	PVC	35	15 34	10 1/2	1 1	15.0-13.5 34.0-32.5	micropore micropore	16.0-12.0 35.0-30.0	#2/16 #2/16	12.0-2.0 30.0-16.0	2.0-1.0
OZ-9	01/19/07	Shallow Point Deep Point	PVC	35	20 34	8 1/4	1 1	21.0-19.5 34.0-32.5	micropore micropore	22.0-18.0 35.0-30.0	#2/16 #2/16	18.0-2.0 30.0-22.0	2.0-1.0

# Table:1aOzone Injection Well Construction DetailsOmega Termite, 807 75th Ave., Oakland, CA

	Depth to Water	TPH-g	TPH-d	TPH-mo	MTBE	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes
Date	water	FPA	Method 8	2015	8260B		FPA	Method 80		
	_	(µg/L)	(µg/L)	(µg/L)	0200D	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
<b>MW-1</b> 07/30/99	5.82	2,700				ND<10	920	5.5	18	130
11/09/99	5.70	1,800				ND<20	430	1.5	26	60
02/23/00	2.84	3,800				ND<10	1,500	56	78	35
05/26/00	5.50	7,100				ND<10	2,800	70	220	81
10/10/00	5.70	980				ND<5.0	260	2.9	10	11
02/07/01	5.25	570				ND<5.0	150	1.8	4.9	9.3
05/25/01	5.25	18,000				ND<100	3,800	350	550	620
09/19/01	5.51	840				ND<5.0	190	4.0	4.6	5.3
05/17/02	5.30	13,000	920			ND<5.0	4,500	29	50	58
08/20/02	5.39	2,100	740	ND<5,000		ND<15	820	4.5	6.4	9.6
01/10/03	4.11	95	260	ND<5,000		ND<5.0	23	0.66	3.9	6.5
04/14/03	4.85	340	310			ND<5.0	87	1.3	4.3	5.6
07/14/03	5.08	750	700			ND<10	420	0.84	3.7	6.0
10/14/03	5.63	200	930	460.0		ND<5.0	62	0.83	2.2	2.7
01/13/04	4.53	510	440	ND<250		ND<5.0	190	1.7	11	18.0
04/15/04	5.14	740	490	ND<250		ND<10	240	ND<0.5	5.0	9.6
07/15/04	5.42	250	420	260		ND<5.0	78	ND<0.5	5.0	4.4
10/18/04	5.42	170	510	290		ND<5.0	33	0.75	1.7	3.5
01/25/05	4.47	240	390	ND<250		ND<5.0	86	0.82	1.3	3.0
04/19/05	4.66	5,100	460	ND<250		ND<50	2,100	5.2	13	84
07/18/05	4.91	3,300	700	350		ND<45	1,500	2.8	13	24
10/18/05	5.24	560	550	330		ND<5.0	190	ND<0.5	3.0	8.6
01/11/06	4.08	240	270	ND<250		ND<5.0	93	ND<0.5	1.3	3.4
03/13/06	3.76	840	260	ND<250	0.89	ND<5.0	330	1.3	5.1	17
06/15/06	4.79	3,200	640	320		ND<25	1,400	3.1	10	71
09/21/06	5.38	3,500	550	270		ND<25	1,700	ND<2.5	14	23
01/02/07	4.64	410	240	ND<250		ND<5.0	150	0.55	1.0	7
06/06/07	5.54	2,500	540	300		ND<20	910	3.4	7.7	55
07/11/07		2,000	450	ND<250		ND<10	620	1.5	5.9	31
10/04/07	5.32	500	440	260		ND<5.0	140	ND<0.5	1.8	8
01/18/08	4.58	4,400	560	260		ND<25	1,300	2.5	11.0	84
03/25/08	5.00	980	450	ND<250		ND<10	270	1.4	6.6	13
<b>MW-2</b> 07/30/99	6.64	1,200				ND<10	29	2.5	51	100
11/09/99	6.42	1,300				ND<30	26	1.1	55	32
02/23/00	3.31	5,000				ND<10	200	18	390	440
05/26/00	6.34	2,700				ND<10	69	13	83	68
10/10/00	6.52	810				ND<10	17	4.7	42	46
02/07/01	5.90	2,600				ND<10	70	15	80	100
05/25/01	6.08	2,400				ND<5.0	75	16	85	100
09/19/01	6.53	1,200				ND<5.0	10	8.5	46	55
02/06/02	5.72	1,800				ND<50	14	11	58	59
05/17/02	6.17	2,000	860			8.1	19	1.1	0.75	88
01/10/03	5.12	2,000	910	ND<5000		ND<50	11	11	96	100
04/14/02										
04/14/03 07/14/03	4.98 5.99	2,400 1,900	800 970	-		ND<10 ND<15	16 18	10 4.8	100 79	73 78

Sample ID	Sample	Depth to Water	TPH-g	TPH-d	TPH-mo	MTBE	MTBE	Benzene	Toluene	Ethyl	Xylenes
	Date	water	<b>FD</b> /	A Method &	8015	8260B		FΡΛ	Method 80	benzene	
		-	(µg/L)	(µg/L)	(µg/L)	0200D	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-2	10/14/03	6.43	1,600	1,300	ND<250		ND<10	14	5.9	87	78
continued	01/13/04	5.72	2,900	960	ND<250		ND<50	26	13	190	150
commutu	04/15/04	6.02	2,700	1,100	ND<250		ND<15	28	11	120	100
	07/15/04	5.27	2,300	1,000	ND<250		ND<10	8.8	3.8	96	84
	10/18/04	5.27	2,400	910	ND<250		ND<10	8.6	8.9	68	72
	01/25/05	5.41	3,500	1,200	ND<250		ND<50	21	11	170	120
	04/19/05	5.61	3,400	1,700	ND<250		ND<15	15	7.4	150	94
	07/18/05	5.84	3,400	1,400	ND<250		ND<5.0	11	9.7	100	89
	10/18/05	6.17	3,000	2,000	270		ND<5.0	8.4	6.7	88	86
	01/11/06	5.11	3,400	1,700	ND<250		ND<90	18	9.4	170	87
	03/13/06	5.24	3,400	1,200	ND<250	0.76	ND<50	20	9.4	110	80
	06/15/06	6.23	2,200	2,400	270		ND<10	8.4	ND<1.0	81	72
	09/20/06	6.63	2,400	860	ND<250		ND<50	12	13	46	65
	01/02/07	6.09	3,800	2,100	ND<250		ND<25	11	7.6	110	120
	06/06/07	6.57	3,800	1,500	ND<250		ND<20	17	17	75	58
	07/11/07		5,300	2,900	480		ND<17	10	8	47	72
	10/04/07	6.63	660	1,300	ND<250		ND<5.0	1.8	0.83	40	45
	01/18/08	6.06	2,200	3,200	350		ND<5.0	1.1	3.40	26	40
	03/25/08	6.45	420	300	ND<250		ND<5.0	1.1	5.1	0.80	3.60
MW-3	07/30/99	5.35	2,700				ND<10	220	15	130	230
	11/09/99	5.11	3,100				15	440	8.8	150	96
	02/23/00	2.37	1,800				ND<15	180	11	82	79
	05/26/00	4.98	1,600				6.4	140	10	69	63
	10/10/00	5.24	1,100				ND<10	110	4.4	63	51
	02/07/01	4.73	1,100				ND<10	130	5.1	68	65
	05/25/01	4.73	1,200				ND<6.0	120	5.4	69	64
	09/19/01	5.07	800				< 5.0	78	3.5	52	37
	02/06/02	4.69	1,100				ND<10	130	4.7	77	71
	05/17/02	4.80	2,800	810		2.0	ND<50	410	23	160	210
	08/20/02	4.97	780	270	ND<5000		ND<10	110	2.8	63	41
	01/10/03	3.59	1,100	510	ND<5000		ND<20	160	3.4	98	84
	04/14/03	5.40	690	230	-		ND<5.0	60	2.3	44	34
	07/14/03	4.69	900	380	-		ND<5.0	130	2.0	70	43
	10/14/03	5.16	500	200	ND<250		ND<10	50	2.3	37	18
	01/13/04	4.15	1,500	400	ND<250		ND<30	200	6.2	120	88
	04/15/04	4.73	1,100	280	ND<250		ND<15	130	3.7	75	53
	07/15/04	5.03	610	240	ND<250		ND<5.0	73	2.1	51	29
	10/18/04	5.03	370	270	ND<250		ND<5.0	45	1.2	47	28
	01/25/05	4.13	840	300	ND<250		ND<5.0	85	2.4	68	45
	04/19/05	4.23	1,100	380	ND<250		ND<5.0	140	4.0	95	59
	07/18/05	4.66	740	290	ND<250		ND<5.0	98	2.0	70	35
	10/18/05	4.82	420	220	ND<250		ND<5.0	38	1.1	35	16
	01/11/06	3.73	740	260	ND<250		ND<5.0	75	2.5	60	32
	03/13/06	3.76	1,300	380	ND<250	1.1	ND<17	90	2.5	87	72
	06/15/06	4.38	670	300	ND<250		ND<5.0	76	1.3	60	40

Sample ID	Sample	Depth to	TPH-g	TPH-d	TPH-mo	MTBE	MTBE	Benzene	Toluene	Ethyl	Xylenes
	Date	Water								benzene	
				Method 8		8260B			Method 80		
			$(\mu g/L)$	$(\mu g/L)$	(µg/L)		(µg/L)	$(\mu g/L)$	$(\mu g/L)$	(µg/L)	$(\mu g/L)$
MW-3	09/20/09	4.84	510	300	310		ND<17	49	ND<1.7	50	36
continued	01/02/07	4.73	380	180	ND<250		ND<5.0	33	1.3	32	17
	06/06/07	4.70	460	230	ND<250		ND<5.0	40	1.9	39	22
	10/04/07	4.75	320	230	ND<250		ND<5.0	28	ND<0.5	29	17
	01/18/08	4.16	470	200	ND<250		ND<5.0	29	1.5	34	20
	03/25/08	4.59	ND<50	63	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
<b>MW-4</b>	07/30/99	5.45	340				ND<10	57	2.2	8.5	6.8
	11/09/99	5.31	1,000				ND<10	220	< 0.5	17	7.1
	02/23/00	2.72	980				ND<5.0	260	7	33	27
	05/26/00	5.07	760				5.7	170	4.8	22	13
	10/10/00	5.32	520				ND<10	130	2.3	22	10
	02/07/01	4.73	680				ND<8.0	180	3.7	29	21
	05/25/01	4.90	1,700				ND<10	510	9.6	44	46
	09/19/01	5.16	680				ND<10	200	2.6	33	12
	02/06/02	4.65	710				ND<15	220	2.8	40	21
	05/17/02	4.90	1,300	190		3.3	ND<10	330	5.6	61	51
	08/20/02	5.02	580	120	ND<5,000		ND<5.0	160	1.7	34	13
	01/10/03	3.78	800	85	ND<5,000		ND<20	240	2.5	46	28
	04/14/03	4.11	850	120			ND<10	220	2.7	47	26
	07/14/03	4.75	780	170			ND<20	220	1.4	44	23
	10/14/03	5.25	420	110	ND<250		ND<5.0	120	0.95	31	8.2
	01/13/04	4.07	120	69	ND<250		ND<10	30	0.52	8.1	4.7
	04/15/04	4.70	660	120	ND<250		ND<25	200	2.2	39	24
	07/15/04	5.09	500	92	ND<250		ND<5.0	130	1.3	35	15
	10/18/04	5.09	350	18	ND<250		ND<5.0	76	0.68	22	4.9
	01/25/05	4.02	580	110	ND<250		ND<5.0	140	1.2	37	20
	04/19/05	4.17	790	130	ND<250		ND<5.0	200	1.7	51	28
	07/18/05	4.49	490	140	ND<250		ND<5.0	140	0.99	36	11
	10/18/05	4.83	320	84	ND<250		ND<5.0	72	0.59	20	4.4
	01/11/06	3.58	310	98	ND<250		ND<5.0	88	0.65	26	9.0
	03/13/06	3.58	490	77	ND<250	1.9	ND<5.0	92	0.88	31	15
	06/15/06	4.37	460	86	ND<250		ND<25	93	ND<0.5	29	9.2
	09/20/06	4.86	260	170	360		ND<10	63	ND<0.5	23	4.7
	01/02/07	4.17	160	78	ND<250		ND<5.0	27	ND<0.5	10	2.0
	06/06/07	4.68	190	59	ND<250		ND<5.0	40	ND<0.5	14	3.6
	10/04/07	4.78	180	ND<50	ND<250		ND<5.0	44	ND<0.5	12	2.2
	01/18/08	4.07	100	ND<50	ND<250		ND<5.0	18	ND<0.5	6	1.4
	03/25/08	4.61	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Sample ID	Sample Date	Depth to Water	TPH-g	TPH-d	TPH-mo	MTBE	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes
			EP	A Method &	8015	8260B		EPA	Method 80		
			(µg/L)	(µg/L)	(µg/L)		(µg/L)	(µg/L)	(µg/L)	$(\mu g/L)$	(µg/L)
TW-5	10/10/00		5,800	2,900	ND<250		ND<50	650	60	190	230
1 **-3	02/07/01		720	2,900 650	450		ND<5.0	6.0	4.5	3.2	230 4.5
	05/25/01		370	420	450 ND<250		ND<5.0	13.0	4.1	1.6	1.3
	09/19/01	6.59	15,000		<sup>1</sup> 1,100,000 <sup>1</sup>		530	29	2.7	1.0	240
	02/06/02		280	55,000	18,000 <sup>1</sup>		ND<5.0	2.3	0.74	ND<0.5	0.70
	05/17/02	6.56	480	41,000		ND<5.0	ND<5.0	1.6	1.1	0.8	ND<0.5
	08/20/02	6.62	240	21,000	ND<5,000		ND<5.0	8.0	1.2	1.1	0.54
	01/10/03	4.66	ND<50	1,300	ND<5,000		ND<5.0	5.4	0.58	ND<0.5	1.10
	4/14/2003		160	2,300			ND<5.0	18	5.7	5.9	16
	7/14/2003	5.84	100	16,000			ND<5.0	1.2	0.77	0.63	1.2
	10/14/03	6.08	120	10,000	4,600		ND<5.0	1.6	1.6	ND<0.5	1.2
	01/13/04	4.83	110	2,100	1,400		ND<5.0	8.4	1.2	ND<0.5	3.9
	04/15/04	5.64	170	2,200	1,100		ND<5.0	2.5	1.2	ND<0.5	5.1
	07/15/04	5.89	81	3,000	1,600		ND<5.0	5	1.3	0.85	4.1
	10/18/04	5.89	230	3,700	1,600		ND<5.0	0.54	3.4	ND<0.5	0.93
	01/25/05	5.13	63	750	640		ND<5.0	ND<0.5	0.78	ND<0.5	1.3
	04/19/05	5.27	ND<50	1,100	660		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	07/18/05	5.76	ND<50	770	490		ND<5.0	ND<0.5	0.88	ND<0.5	ND<0.5
	10/18/05	6.04	78	1,600	1,100		ND<5.0	ND<0.5	1.6	ND<0.5	ND<0.5
	01/11/06	4.72	ND<50	680	550	ND<0.5	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/13/06	4.51	ND<50	180	260	ND<0.5	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/15/06	Not sample	ed, well da	maged - w	ill be destro	yed					
	01/02/07	Well Dest	royed 12/2	20/06							
MW-6	03/13/06	5.69	87	160	310	ND<0.5	ND<5.0	ND<0.5	0.83	1.3	0.80
141 44 -0	06/15/09	6.50	ND<50	110	ND<250		ND<5.0	ND<0.5	ND<0.5	1.0	0.58
	09/20/06	6.84	ND<50	59	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/02/07	6.44	ND<50	120	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/06/07	6.82	ND<50	76	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/04/07	6.83	ND<50	100	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/18/08	6.39	ND<50	130	ND<250		ND<5.0	ND<0.5	ND<0.5	1.3	ND<0.5
	03/25/08	6.61	ND<50	ND<50			ND<5.0	ND<0.5		ND<0.5	ND<0.5
<b>MW-7</b>	03/13/06	3.36	460	3,500	360	ND<0.5	ND<5.0	2.5	1.0	ND<0.5	3.3
	06/15/09	3.95	ND<50	520	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	09/20/06	4.77	ND<50	150	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/02/07	4.17	ND<50	99	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/06/07	4.69	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	07/11/07		67	150	ND<250		ND<5.0	17	ND<0.5	ND<0.5	ND<0.5
	10/04/07	5.15	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/18/08	4.15	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/25/08	4.33	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Sample ID	Sample Date	Depth to Water	TPH-g	TPH-d	TPH-mo	MTBE	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes
	Dutt	,, ater	EPA	Method 8	8015	8260B		EPA	Method 80		
			(µg/L)	(µg/L)	(µg/L)	02002	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
<b>MW-8</b>	03/13/06	4.64	280	130	ND<250	ND<0.5	ND<5.0	ND<0.5	2.0	ND<0.5	1.3
IVI VV -0	06/15/09	4.04 5.21	280 ND<50	130 140	ND<250	ND<0.3	ND<5.0	ND<0.5	2.0 ND<0.5	ND<0.5	ND<0.5
	09/20/06	6.03	ND<50	65	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	09/20/00	0.03 5.97	ND<50	03 70	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/06/07	5.97	ND<50	70 ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/04/07	5.93 6.64	ND<50	ND<30 ND<50	ND<250		ND<5.0	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5	ND<0.5
							ND<5.0	ND<0.5			
	01/18/08	5.35	ND<50	ND<50	ND<250				ND<0.5	ND<0.5	ND<0.5
	03/25/08	5.67	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-9	03/13/06	4.32	1,100	$14,000^{1}$	4,100	2.4	ND<5.0	85	1.8	0.64	100
	06/15/09	5.35	460	2,100	710		ND<5.0	170	0.73	1.3	8.3
	09/21/06	5.81	130	1,400	460		ND<5.0	20	1.2	ND<0.5	2.6
	01/02/06	5.19	88	4,300	1,000		ND<5.0	5.1	0.67	ND<0.5	ND<0.5
	06/06/07	5.67	64	320	250		ND<5.0	12	ND<0.5	ND<0.5	ND<0.5
	10/04/07	5.89	ND<50	140	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/18/08	5.13	250	160	ND<250		ND<5.0	100	ND<0.5	1.3	7.6
	03/25/08	5.56	740	210	ND<250		10.0	290	1.5	2.6	16
<b>MW-10</b>	03/13/06	3.28	ND<50	220	ND<250	2.7	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/15/09	4.38	ND<50	300	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	09/21/06	4.79	ND<50	280	460		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/02/07	4.66	ND<50	230	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/06/07		ND<50	230	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/04/07	4.74	ND<50	120	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/18/08	4.12	79	220	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/25/08	4.42	340	82	ND<250		ND<5.0	0.95	ND<0.5	ND<0.5	1.1
MW-11	01/02/07	3.94	160	2,700	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	1.7
141 44 -11	6//06/07	4.51	ND<50	2,700 ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	07/11/07	4.95	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/04/07	4.93 5.03	ND<50	ND<30 ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/18/08	3.03	ND<50	ND<30 ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
		3.92 <b>4.06</b>	ND<50 ND<50	ND<30 ND<50	ND<250		ND<5.0 ND<5.0	ND<0.5 ND<0.5	ND<0.3 ND<0.5	ND<0.5 ND<0.5	ND<0.5
	03/25/08	4.00	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
<b>MW-12</b>	01/02/07	3.43	53	130	ND<250		1.4	ND<0.5	ND<0.5	ND<0.5	0.95
	06/06/07	3.81	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<5.0
	10/04/07	4.38	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<5.0
	01/18/08	3.32	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<5.0
	03/25/08	3.62	ND<50	ND<50	ND<250		ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<5.0

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

TPH-mo = total petroleum hydrocarbons as motor oil

MTBE = methyl tert-butyl ether

1 = light non-aqueous phase liquid

 $\mu g/L = micrograms$  per liter (parts per billion)

----- not sampled

ND = not detected

Well ID	Date	Well Elevation *	Depth to Water	Groundwater Elevation	Elevation Change
		(ft amsl)	( <b>ft</b> )	(ft amsl)	(ft)
MW-1	07/30/99	10.68	5.82	4.86	
	11/09/99	10.68	5.70	4.98	0.12
	02/23/00	10.68	2.84	7.84	2.86
	05/26/00	10.68	5.50	5.18	-2.66
	10/10/00	10.68	5.70	4.98	-0.20
	02/07/01	10.68	5.25	5.43	0.45
	05/25/01	10.68	5.25	5.43	0.45
	09/19/01	10.68	5.51	5.17	-0.26
	02/06/02	10.68	NM	NM	-0.20 NM
	05/17/02		5.30	5.38	
		10.68			
	08/20/02	10.68	5.39	5.29	-0.09
	01/10/03	10.68	4.11	6.57	1.28
	04/14/03	10.68	4.85	5.83	-0.74
	07/14/03	10.68	5.08	5.60	-0.23
	10/14/03	10.68	5.63	5.05	-0.55
	01/13/04	10.68	4.53	6.15	1.10
	04/15/04	10.68	5.14	5.54	-0.61
	07/15/04	10.68	5.42	5.26	-0.28
	10/18/04	10.68	5.24	5.44	0.18
	01/25/05	10.68	4.47	6.21	0.77
	04/19/05	10.68	4.66	6.02	-0.19
	07/18/05	10.68	4.91	5.77	-0.25
	10/18/05	10.68	5.24	5.44	-0.33
	11/03/05	10.68	5.31	5.37	-0.07
	01/11/06	10.68	4.08	6.60	1.23
	03/13/06	10.68	3.76	6.92	0.32
	06/15/06	10.68	4.79	5.89	-1.03
	09/20/06	10.68	5.38	5.30	#REF!
	01/02/07	10.68	4.64	6.04	0.74
	6/6/2007	10.68	5.14	5.54	-0.50
	10/04/07	10.68	5.32	5.36	-0.18
	01/18/08	10.68	4.58	6.10	0.74
	03/25/08	10.68	5.00	5.68	-0.42
MW-2	07/30/99	12.15	6.64	5.51	
	11/09/99	12.15	6.42	5.73	0.22
	02/23/00	12.15	3.31	8.84	3.11
	05/26/00	12.15	6.34	5.81	-3.03
	10/10/00	12.15	6.52	5.63	-0.18
	02/07/01	12.15	5.90	6.25	0.62
	05/25/01	12.15	6.08	6.07	-0.18
	09/19/01	12.15	6.53	5.62	-0.45
	02/06/02	12.15	5.72	6.43	0.81
	05/17/02	12.15	6.17	5.98	-0.45
	08/20/02	12.15	NM	NM	NM
	01/10/03	12.15	5.12	7.03	
	04/14/03	12.15	4.98	7.17	0.14
	07/14/03	12.15	4.98 5.99	6.16	-1.01
	0//14/03	14.13	J.77	0.10	-1.01

Well ID	Date	Well Elevation *	Depth to Water	Groundwater Elevation	Elevation Change
		(ft amsl)	( <b>ft</b> )	(ft amsl)	(ft)
continued	01/13/04	12.15	5.42	6.73	1.01
continueu	04/15/04	12.15	6.02	6.13	-0.60
	07/15/04	12.15	5.27	6.88	0.75
	10/18/04	12.15	6.12	6.03	-0.85
	04/19/05	12.15	5.61	6.54	-0.83
	07/18/05		5.84	6.31	-0.23
	10/19/05	12.15	6.17	5.98	-0.23
		12.15		5.98	-0.33
	11/03/05	12.15	6.21		
	01/11/06	12.15	5.11	7.04	1.10
	03/13/06	12.15	5.24	6.91	-0.13
	06/15/06	12.15	6.23	5.92	-0.99
	09/20/06	12.15	6.63	5.52	-0.40
	01/02/06	12.15	6.09	6.06	0.54
	6/6/2007	12.15	6.57	5.58	-0.48
	10/04/07	12.15	6.63	5.52	-0.06
	01/18/08	12.15	6.06	6.09	0.57
	03/25/08	12.15	6.45	5.70	-0.39
MW-3	07/30/99	10.40	5.35	5.05	
	11/09/99	10.40	5.11	5.29	0.24
	02/23/00	10.40	2.37	8.03	2.74
	05/26/00	10.40	4.98	5.42	-2.61
	10/10/00	10.40	5.24	5.16	-0.26
	02/07/01	10.40	4.73	5.67	0.51
	05/25/01	10.40	4.73	5.67	0.00
	09/19/01	10.40	5.07	5.33	-0.34
	02/06/02	10.40	4.69	5.71	0.38
	05/17/02	10.40	4.80	5.60	-0.11
	08/20/02	10.40	4.97	5.43	-0.17
	01/10/03	10.40	3.59	6.81	1.38
	04/14/03	10.40	5.40	5.00	-1.81
	07/14/03	10.40	4.69	5.71	0.71
	10/14/03	10.40	5.16	5.24	-0.47
	01/13/04	10.40	4.15	6.25	1.01
	04/15/04	10.40	4.73	5.67	-0.58
	07/15/04	10.40	5.03	5.37	-0.30
	10/18/04	10.40	4.85	5.55	0.18
	01/25/05	10.40	4.13	6.27	0.72
	04/19/05	10.40	4.23	6.17	-0.10
	07/18/05	10.40	4.56	5.84	-0.33
	10/18/05	10.40	4.82	5.58	-0.26
	11/03/05	10.40	4.82	5.53	-0.25
	01/11/06	10.40	3.62	6.78	-0.03
	03/13/06	10.40	3.62	6.93	0.15
	06/15/06	10.40	4.38	6.02	-0.91
	08/02/06		4.58 4.69	6.02 5.71	-0.91
		10.40			
	09/20/06	10.40	4.84	5.56	-0.15

Well ID	Date	Well Elevation *	Depth to Water	Groundwater Elevation	Elevation Change
		(ft amsl)	( <b>ft</b> )	(ft amsl)	( <b>ft</b> )
<b>MW-3</b>	01/02/07	10.40	3.73	6.67	1.11
continued	6/6/2007	10.40	4.7	5.7	-0.97
	10/04/07	10.40	4.75	5.65	-0.05
	01/18/08	10.40	4.16	6.24	0.59
	03/25/08	10.40	4.59	5.81	-0.43
MW-4	07/30/99	10.31	5.45	4.86	
	11/09/99	10.31	5.31	5.00	0.14
	02/23/00	10.31	2.72	7.59	2.59
	05/26/00	10.31	5.07	5.24	-2.35
	10/10/00	10.31	5.32	4.99	-0.25
	02/07/01	10.31	4.73	5.58	0.59
	05/25/01	10.31	4.90	5.41	-0.17
	09/19/01	10.31	5.16	5.15	-0.26
	02/06/02	10.31	4.65	5.66	0.51
	05/17/02	10.31	4.90	5.41	-0.25
	08/20/02	10.31	5.02	5.29	-0.12
	01/10/03	10.31	3.78	6.53	1.24
	04/14/03	10.31	4.11	6.20	-0.33
	07/14/03	10.31	4.75	5.56	-0.64
	10/14/03	10.31	5.28	5.03	-0.53
	01/13/04	10.31	4.07	6.24	1.21
	04/15/04	10.31	4.70	5.61	-0.63
	07/15/04	10.31	5.09	5.22	-0.39
	10/18/04	10.31	4.86	5.45	0.23
	01/25/05	10.31	4.02	6.29	0.84
	04/19/05	10.31	4.17	6.14	-0.15
	07/18/05	10.31	4.49	5.82	-0.32
	10/18/05	10.31	4.83	5.48	-0.34
	11/03/05	10.31	4.88	5.43	-0.05
	01/11/06	10.31	3.58	6.73	1.30
	03/13/06	10.31	3.28	7.03	0.30
	06/15/06	10.31	4.37	5.94	-1.09
	09/20/06	10.31	4.86	5.45	-0.49
	01/02/07	10.31	4.17	6.14	0.69
	6/6/2007	10.31	4.68	5.63	-0.51
	10/04/07	10.31	4.08	5.53	-0.31
	01/18/08	10.31	4.07	6.24	0.71
	<b>01/18/08</b>	<b>10.31</b>	4.07 <b>4.61</b>	5.70	- <b>0.54</b>
TW-5	09/19/01		6.59		
	05/17/02		6.56		0.03
	08/20/02		6.62		-0.06
	01/10/03		4.66		1.96
	04/14/03		5.30		-0.64
	07/14/03		5.84		-0.54
	07/14/03		5.84		0.00
	10/14/03		6.08		-0.24
	01/13/04		4.83		1.25
	04/15/04		5.64		-0.81

Well ID	Date	Well Elevation * (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft.amgl)	Elevatior Change
		(It allist)	(11)	(ft amsl)	(ft)
TW-5	07/15/04		5.89		-0.25
continued	10/18/04		5.95		-0.06
	01/25/05		5.13		0.82
	04/19/05		5.27		-0.14
	07/18/05		5.76		-0.49
	10/18/05		6.04		-0.28
	11/03/05		6.09		-0.05
	01/11/06		4.72		1.37
	03/13/06		4.51		0.21
	04/26/06		5.02		-0.51
	01/02/07	Well Destroyed 12/2	0/06		
<b>MW-6</b>	03/13/06	12.35	5.69	6.66	
	06/15/06	12.35	6.50	5.85	-0.81
	09/20/06	12.35	6.84	5.51	-0.34
	01/02/07	12.35	6.44	5.91	0.40
	6/6/2007	12.35	6.82	5.53	-0.38
	10/04/07	12.35	6.83	5.52	-0.01
	01/18/08	12.35	6.39	5.96	0.44
	03/25/08	12.35	6.61	5.74	-0.22
MW-7	03/13/06	11.16	3.36	7.80	
	06/15/06	11.16	3.95	7.21	-0.59
	09/20/06	11.16	4.77	6.39	-0.82
	01/02/07	11.16	4.17	6.99	0.60
	6/6/2007	11.16	4.69	6.47	-0.52
	10/04/07	11.16	5.15	6.01	-0.46
	01/18/08	11.16	4.15	7.01	1.00
	03/25/08	11.16	4.33	6.83	-0.18
<b>MW-8</b>	03/13/06	12.42	4.64	7.78	
	06/15/06	12.42	5.21	7.21	-0.57
	09/20/06	12.42	6.03	6.39	-0.82
	01/02/07	12.42	5.97	6.45	0.06
	6/6/2007	12.42	5.93	6.49	0.04
	10/04/07	12.42	6.64	5.78	-0.71
	01/18/08	12.42	5.35	7.07	1.29
	03/25/08	12.42	5.67	6.75	-0.32
MW-9	03/13/06	11.22	4.32	6.90	
	06/15/06	11.22	5.35	5.87	-1.03
	08/02/06	11.22	5.70	5.52	-0.35
	09/20/06	11.22	5.81	5.41	-0.11
	01/02/07	11.22	5.19	6.03	0.62
	6/6/2007	11.22	5.67	5.55	-0.48
	10/04/07	11.22	5.89	5.33	-0.22
	01/18/08	11.22	5.13	6.09	0.76
	03/25/08	11.22	5.56	5.66	-0.43

Well ID	Date	Well Elevation * (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)	Elevation Change (ft)
		(It allist)	(11)	(It allist)	(11)
MW-10	03/13/06	10.31	3.28	7.03	
	06/15/06	10.31	4.34	5.97	-1.06
	08/02/06	10.31	4.66	5.65	-0.32
	09/20/06	10.31	4.79	5.52	-0.13
	01/02/07	10.31	4.26	6.05	0.53
	6/6/2007	10.31	4.66	5.65	-0.40
	10/04/07	10.31	4.74	5.57	-0.08
	01/18/08	10.31	4.12	6.19	0.62
	03/25/08	10.31	4.42	5.89	-0.30
MW-11	01/02/07	10.96	3.94	7.02	
	6/6/2007	10.96	4.51	6.45	-0.57
	10/04/07	10.96	5.03	5.93	-0.52
	01/18/08	10.96	3.92	7.04	1.11
	03/25/08	10.96	4.06	6.90	-0.14
MW-12	01/02/07	10.46	3.43	7.03	
	6/6/2007	10.46	3.81	6.65	-0.38
	10/04/07	10.46	4.38	6.08	-0.57
	01/18/08	10.46	3.32	7.14	1.06
	03/25/08	10.46	3.62	6.84	-0.30

\* Original wells surveyed 12/9/02 by Morrow Surveying, resurveyed on 3/02/06, 1/16/07 by Morrow Surveying Depth to water measured from the top of well casing NM - not monitored

ft amsl = feet above mean sea level

Episode #	Date	Average Elevation (ft)	Elevation Change (ft)	Flow Direction / Gradient
1	07/30/99	5.07	_	
2	11/09/99	5.25	0.18	0.0056 / SW
3	02/23/00	8.08	2.83	0.008 / S
4	05/26/00	5.41	-2.66	0.003 / SW
5	10/10/00	5.19	-0.22	0.0036 / S
6	02/07/01	5.73	0.54	0.008 / S
7	05/25/01	5.65	-0.09	0.006 / S
8	09/19/01	5.32	-0.33	0.004 / S
9	02/06/02	5.93	0.62	0.005 / SE
10	05/17/02	5.59	-0.34	0.003 / SW
11	08/20/02	5.34	-0.26	0.002 / S
12	01/10/03	6.74	1.40	0.006 / E-NE
13	04/14/03	6.05	-0.69	0.016 / E-NE
14	07/14/03	5.76	-0.29	.0017 / S-SE
15	10/14/03	5.26	-0.50	0.003 / SE
16	01/13/04	6.34	1.08	0.001 / W
17	04/15/04	5.74	h	0.001 / W
18	07/15/04	5.68	-0.05	0.001 / W
19	10/18/04	5.62	-0.07	0.002 / N
20	01/25/05	6.33	0.71	0.002 / N
20	04/19/05	6.16	-0.17	0.002 / N 0.001 / N
22	07/18/05	5.85	-0.31	0.0004 / S
23	10/18/05	5.61	-0.24	0.0017 / SW
23	01/11/06	6.79	1.18	0.0047 / N
25	3/13/06	6.57	-0.21	Shallow Zone .0004 / NW
23	3/13/06	7.38	-0.21	Deeper zone 0.036 / S
26	6/15/06	5.92	-0.65	Shallow Zone 0.0004 / NW
20	6/15/06	6.40	-0.98	Deeper zone 0.06 / S
27	9/20/06	5.47	-0.46	Shallow Zone 0.005 / SW
27	9/20/06	5.93	-0.47	Deeper zone 0.004/ S
20	9/20/08 1/2/07	6.16	0.70	Shallow Zone 0.0004 / NW
28		6.38	0.45	Deeper Zone 0.06 / S
20	1/2/07	5.60	-0.57	Shallow Zone 0.0004 / NW
29	6/6/07	6.04	-0.37	Deeper Zone 0.06 / S
20	6/6/07	5.52	-0.08	Shallow Zone 0.005 / SW
30	10/4/07	5.72	-0.08	Deeper Zone 0.012/ S
21	10/4/07			-
31	1/18/08	6.17	0.65	Shallow Zone 0.003/ NW
22	1/18/08	6.68 5.72	0.96	Deeper Zone .015/ SE
32	3/25/08 3/25/08	5.72 6.41	-0.45 -0.27	Shallow Zone 0.003/ NW Deeper Zone .015/ SE

## Table 3a:Groundwater Elevation and Flow Direction Summary<br/>Omega Termite, 807 75th Ave., Oakland, CA

Average water table elevation calculated using Microsoft Excel Shallow Zone Wells: MW-1, MW-2, MW-3, MW-4, MW-6 Deeper Zone Wells: MW-7. MW-8, MW-9, MW-10, MW-11, MW-12

## **APPENDIX A** Groundwater Monitoring Well Field Sampling Forms

#### AEI CONSULTANTS GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number:	MW-1
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Project Name:	Omega Termite	Date of Sampling:	3/25/2008
Job Number:	262157	Name of Sampler:	Bartlett
Project Address:	807 75th Avenue Oakland		

MONITORIN	G WELL DA	TA			
Well Casing Diameter (2"/4"/6")	2				
Wellhead Condition	ОК		•		
Elevation of Top of Casing (feet above msl)		10.68			
Depth of Well	20.00				
Depth to Water (from top of casing)	5.00				
Water Elevation (feet above msl)	5.68				
Well Volumes Purged					
Actual Volume Purged (gallons)	2.0				
Appearance of Purge Water	Clear				
Free Product Present?	No	Thickness (ft):	NA		

### **GROUNDWATER SAMPLES**

Number of Sampl	Number of Samples/Container Size				s, 1 L Amber		
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
12:28	0.5	17.65	6.81	1613	1.73	3.5	
	1.0	17.44	6.78	1619	1.96	-6.4	
	1.5	17.48	6.73	1641	1.80	-15.2	
12:39	2.0	17.57	6.71	1651	1.67	-21.6	

## COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear, slight hydrocarbon - fetid odor

No pressure on well cap

Sampling tube @ 11 feet bgs.

#### AEI CONSULTANTS GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number:	MW-2
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ſ	Project Name:	Omega Termite	Date of Sampling:	3/25/2008
I	Job Number:	262157	Name of Sampler:	Bartlett
I	Project Address:	807 75th Avenue Oakland		

MONITORIN	G WELL DA	ТА			
Well Casing Diameter (2"/4"/6")	2				
Wellhead Condition	ОК		•		
Elevation of Top of Casing (feet above msl)	12.15				
Depth of Well	20.00				
Depth to Water (from top of casing)	6.45				
Water Elevation (feet above msl)	5.70				
Actual Volume Purged (gallons)	2.0				
Appearance of Purge Water	Clear				
Free Product Present?	No	Thickness (ft):	NA		

### **GROUNDWATER SAMPLES**

Number of Sample	es/Container S	Size		2 - 40ml VOA	s, 1 L Amber		
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
9:27	0.5	17.65	6.66	1171	1.82	-68.8	
	1.0	17.62	6.63	1154	1.56	-76.6	
	1.5	17.50	6.62	1148	1.53	-79.2	
9:35	2.0	17.48	6.62	1149	1.47	-81.8	

## COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear, hydrocarbon odor

No pressure on well cap

Sampling tube @ 11 feet bgs.

#### AEI CONSULTANTS GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number:	MW-3
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Project Name:	Omega Termite	Date of Sampling:	3/25/2008
Job Number:	262157	Name of Sampler:	Bartlett
Project Address:	807 75th Avenue Oakland		

MONITORING WELL DATA				
Well Casing Diameter (2"/4"/6")		2		
Wellhead Condition	ОК		•	
Elevation of Top of Casing (feet above msl)	10.40			
Depth of Well	20.00			
Depth to Water (from top of casing)	4.59			
Water Elevation (feet above msl)	5.81			
Actual Volume Purged (gallons)	2.0			
Appearance of Purge Water	Clear			
Free Product Present?	No	Thickness (ft):	NA	

### **GROUNDWATER SAMPLES**

Number of Samples/Container Size				2 - 40ml VOA	s, 1 L Amber		
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
10:46	0.5	17.58	6.65	1674	3.21	55.6	
	1.0	17.54	6.56	1663	2.74	249.2	
	1.5	17.41	6.50	1655	2.68	412.7	
!):55	2.0	17.16	6.44	1639	2.69	522.8	

## COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear, no hydrocarbon odor

No pressure on well cap

Sampling tube @ 11 feet bgs.

	Mor	nitoring Well Number:	MW-4
Project Name:	Omega Termite	Date of Sampling:	3/25/2008
Job Number:	262157	Name of Sampler:	Bartlett
Project Address:	807 75th Avenue Oakland		

.......

MONITORING WELL DATA						
Well Casing Diameter (2"/4"/6")		2				
Wellhead Condition	ОК		•			
Elevation of Top of Casing (feet above msl)		10.31				
Depth of Well		20.00				
Depth to Water (from top of casing)	4.61					
Water Elevation (feet above msl)	5.70					
Actual Volume Purged (gallons)	2.0					
Appearance of Purge Water	Clear					
Free Product Present?	nt? No Thickness (ft): NA					

# **GROUNDWATER SAMPLES**

Number of Samples/Container Size				2 - 40ml VOA	s, 1 L Amber		
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
13:39	0.5	18.90	6.76	1445	2.91	66.8	
	1.0	18.38	6.69	1380	3.22	77.4	
	1.5	18.44	6.67	1406	3.05	78.2	
13:48	2.0	18.39	6.66	1419	2.93	70.1	

# COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear, no hydrocarbon odor

No pressure on well cap

	Mor	nitoring Well Number:	MW-6
Project Name:	Omega Termite	Date of Sampling:	3/25/2008
Job Numbor	262157	Name of Sampler:	Portlott

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Job Number:	262157	Name of Sampler:	Bartlett
Project Address:	807 75th Avenue Oakland		

MONITORING WELL DATA						
Well Casing Diameter (2"/4"/6")	2					
Wellhead Condition	ок					
Elevation of Top of Casing (feet above msl)		12.35				
Depth of Well		14.00				
Depth to Water (from top of casing)	6.61					
Water Elevation (feet above msl)	5.74					
Actual Volume Purged (gallons)	2.0					
Appearance of Purge Water	Clear					
Free Product Present?	ee Product Present? No Thickness (ft): NA					

## **GROUNDWATER SAMPLES**

Number of Samples/Container Size				2 - 40ml VOA	s, 1 L Amber		
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
8:33	0.5	15.95	6.43	1307	2.51	151.9	
	1.0	16.05	6.42	1308	2.28	135.4	
	1.5	16.12	6.44	1307	2.19	118.0	
8:42	2.0	16.18	6.47	1306	2.06	106.8	

# COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear, no hydrocarbon odor

No pressure on well cap

Monitoring Well Number:	MW-7
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Project Name:	Omega Termite	Date of Sampling:	3/25/2008
Job Number:	262157	Name of Sampler:	Bartlett
Project Address:	807 75th Avenue Oakland		

MONITORING WELL DATA						
Well Casing Diameter (2"/4"/6")		2				
Wellhead Condition	ок					
Elevation of Top of Casing (feet above msl)		11.16				
Depth of Well		35.00				
Depth to Water (from top of casing)	4.33					
Water Elevation (feet above msl)	6.83					
Actual Volume Purged (gallons)	2.0					
Appearance of Purge Water	clear					
Free Product Present?	sent? No Thickness (ft): NA					

## **GROUNDWATER SAMPLES**

Number of Samples/Container Size				2 - 40ml VOA	s, 1 L Amber		
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
11:48	0.5	18.48	6.78	2056	6.82	137.1	
	1.0	18.49	6.75	2056	6.82	138.8	
	1.5	18.51	6.74	2047	7.28	140.0	
12:00	2.0	18.51	6.73	2035	7.40	141	

# COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

No hydrocarbon odor

Slight pressure on well cap

Projec	t Name:	Omega Termite	Date of Sampling:	3/25/2008
Job N	Number:	262157	Name of Sampler:	Bartlett
Project	Address:	807 75th Avenue Oakland		

MONITORING WELL DATA						
Well Casing Diameter (2"/4"/6")		2				
Wellhead Condition	ОК					
Elevation of Top of Casing (feet above msl)		12.42				
Depth of Well		35.00				
Depth to Water (from top of casing)	5.67					
Water Elevation (feet above msl)	6.75					
Actual Volume Purged (gallons)	2.5					
Appearance of Purge Water	light yellow					
Free Product Present?	nt? No Thickness (ft): NA					

## **GROUNDWATER SAMPLES**

Number of Samples/Container Size				2 - 40ml VOA	s, 1 L Amber		
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
8:59	0.5	17.81	6.57	2659	4.34	128.1	light brown
	1.0	17.21	6.5	2701	3.62	120.6	light yellow
	1.5	18.25	60.5	2706	3.46	117.5	light yellow
	2.0	18.26	6.51	2701	3.03	113.9	light yellow
9:12	2.5	18.25	6.51	2700	2.97	112.9	light yellow

#### COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Light yellow at one gallon, no hydrocarbon odor

Strong pressure on well cap

Monitoring Well Number: MW-9	Monitoring	<i>l</i> lonit	Monito	ng Well	Number:	MW-9
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Project Name:	Omega Termite	Date of Sampling:	3/25/2008
Job Number:	262157	Name of Sampler:	Bartlett
Project Address:	807 75th Avenue Oakland		

MONITORING WELL DATA						
Well Casing Diameter (2"/4"/6")		2				
Wellhead Condition	ок					
Elevation of Top of Casing (feet above msl)		11.22				
Depth of Well		35.00				
Depth to Water (from top of casing)	5.13					
Water Elevation (feet above msl)	6.09					
Actual Volume Purged (gallons)	2.5					
Appearance of Purge Water	Clear					
Free Product Present?	No	Thickness (ft): NA				

#### **GROUNDWATER SAMPLES**

Number of Sample		2 - 40ml VOA	s, 1 L Amber				
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
12:50	0.5	18.59	7.12	1795	11.24	54.6	Clear
	1.0	18.71	7.16	1766	12.15	68.2	Clear
	1.5	18.77	7.02	1743	10.94	78.6	Clear
	2.0	18.80	6.92	1723	9.82	86.5	Clear
13:05	2.5	18.84	6.87	1721	8.94	82.4	Clear

# COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clean, no hydrocarbon odor

No pressure on well cap

Monitoring Well Number:	MW-10
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Project Name:	Omega Termite	Date of Sampling:	3/25/2008
Job Number:	262157	Name of Sampler:	Bartlett
Project Address:	807 75th Avenue Oakland		

MONITORING WELL DATA						
Well Casing Diameter (2"/4"/6")		2				
Wellhead Condition	ОК		•			
Elevation of Top of Casing (feet above msl)		10.31				
Depth of Well		35.00				
Depth to Water (from top of casing)	4.42					
Water Elevation (feet above msl)	5.89					
Actual Volume Purged (gallons)	2.5					
Appearance of Purge Water	Clear					
Free Product Present?	Free Product Present? No Thickness (ft					

## **GROUNDWATER SAMPLES**

Number of Sample		2 - 40ml VOA	s, 1 L Amber				
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
10:28	0.5	17.91	6.61	1887	4.14	14.0	
	1.0	17.95	6.51	1938	3.13	14.5	
	1.5	18.16	6.47	2016	2.40	-19.8	
	2.0	18.16	6.49	2000	2.24	-30.5	
10:40	2.5	18.16	6.50	1992	2.10	34.7	

# COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear, no hydrocarbon odor

No pressure on well cap

Monitoring Well Number:	MW-11
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Project Name:	Omega Termite	Date of Sampling:	10/3/2007
Job Number:	262157	Name of Sampler:	Bartlett
Project Address:	807 75th Avenue Oakland		

MONITORIN	G WELL DA	ТА							
Well Casing Diameter (2"/4"/6")		2							
Wellhead Condition	ОК	▼							
Elevation of Top of Casing (feet above msl)		10.96							
Depth of Well		35.00							
Depth to Water (from top of casing)	4.06								
Water Elevation (feet above msl)	6.90								
Actual Volume Purged (gallons)	2.0								
Appearance of Purge Water		Clear							
Free Product Present?	No	Thickness (ft): NA							

## **GROUNDWATER SAMPLES**

Number of Samp	les/Container S	Size	-	2 - 40ml VOAs, 1 L Amber							
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments				
11:14	0.5	18.52	7.46	1525	15.99	172.1					
	1.0	18.44	7.39	1507	16.55	162.9					
	1.5	18.56	7.22	1508	15.9	159.9					
11:28	2.0	18.55	7.16	1506	16.48	158.9					
	1										

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear, no hydrocarbon odor

No pressure on well cap

Monitoring Well Number:	MW-12
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ſ	Project Name:	Omega Termite	Date of Sampling:	3/25/2008
	Job Number:	262157	Name of Sampler:	Bartlett
	Project Address:	807 75th Avenue Oakland		

MONITORIN	G WELL DA	ТА								
Well Casing Diameter (2"/4"/6")		2								
Wellhead Condition	ОК		•							
Elevation of Top of Casing (feet above msl)		10.46								
Depth of Well		35.00								
Depth to Water (from top of casing)	3.62									
Water Elevation (feet above msl)	6.84									
Actual Volume Purged (gallons)		2.0								
Appearance of Purge Water		Clear								
Free Product Present?	No	Thickness (ft):	NA							

#### **GROUNDWATER SAMPLES**

Number of Sample	es/Container S	Size		2 - 40ml VOAs, 1 L Amber							
Time	Vol Removed (gallons)	Temperature (deg C)	рН	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments				
14:15	0.5	19.15	7.19	1382	15.17	80.0					
	1.0	18.87	7.09	1387	15.45	96.2					
	1.5	18.98	7.08	1401	15.32	98.9					
14:25	2.0	18.99	7.07	1408	15.36	101.2					

# COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear, no hydrocarbon odor

# **APPENDIX B**

Laboratory Analytical Documentation and Chain of Custody Documentation

McCampbell An "When Ouality"		1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269							
AEI Consultants	Client Project ID: #262157	7; Omega Termite	Date Sampled:	03/25/08					
2500 Camino Diablo, Ste. #200			Date Received:	03/26/08					
Walnut Creek, CA 94597	Client Contact: Robert Flo	ory	Date Reported:	04/01/08					
Wahat Creek, Cri 94397	Client P.O.:		Date Completed:	03/31/08					

#### WorkOrder: 0803669

April 01, 2008

Dear Robert:

Enclosed within are:

- 1) The results of the 11 analyzed samples from your project: #262157; Omega Termite,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

							080	03	(de	9															_				
Felephone: (925) 798-1620 Fax: (925) 798-1622							URN si lea	_	105	N	11	NO ME PDI		RLS	) H	24 14 14	ŝ.		1		72 HR	51							
	Consultants Camino Día nt Creek, C 899, extensio 7 807 75 <sup>th</sup> , C	A 94597 m 122 Jakland,	r 200	as:	il <u>: r</u> fi (925)	me 12 @ # 944-1 ne: (h	1895					attacts - an (c) without	antar sid. Commer And Decid Bally :	scattoris (418-1)	No.11 hurs	Anal	A A A A	A mel DX 'A & ED3b	1	A 425 \$770 \$310		- Intell-		restile water funger Lands	Oth	64	Filis Sair Met	phen I ala Ivare	i.e
SAMPLE ID Field Paint Name)	EOCATION		FLING Time	4 Containers	Type Containers	Water Soll	ATRI		PRE	HNO,		HTAX & TPH WILLIAM	TTTI (3015) does - 0	Load Potrolicum Hyde	IVOCa EPA Geo (6	HTF CONCY (FIFE)	POINT AND AND MAN	Furt Address in A24	IPAKES NON	PAHS PRATINE	( UPT 9 Metals	and the second second	RC1	Malegensied VSR = [3					
MW-1 MW-2 MW-3 MW-4 MW-6 MW-7 MW-7 MW-8 MW-7 MW-8 MW-7 MW-10 MW-10 MW-11 MW-12		3/15 3/15 3/15 3/15 3/15 3/15 3/15 3/15	12:40 9:38 10:55 13:50 8:45 12:00 12:15 (3:08 10:30 19:30	* * * * * * * * * * * *	10- 10- 10- 10- 10- 10- 10- 10- 10- 10-	× × × × × × × × × × × × × × × × × × ×			X X XX X XX X X X			* * * * * * *								T F F F F F F F F F F F F F F F F F F F	- 								
Relinquished Ity: Refinquished By: FIV:10 - Ti Refinquished By: Loughton A		Date 3/26 Date 3/21 Date:	time: 04:15.05 Time: 130 Time: 1400	EHV R <u>p</u>	fixed B (427) fixed B	h (a	r Paris	-	AA	-40	2.4	-С. Н	Ert DOD EAD ECHI	SPA	DI1 E.A	BAL		-/ .n_	A	REST PPRO ON L PER	AIN	LAT	E	LAB		e.	METAD	-01	0.14

# McCampbell Analytical, Inc.

1534 Willow Pass Rd

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, (925) 252	CA 94565-1701 2-9262					Work	Order	: 0803	669		Client(	Code:	AEL				
			WriteOr	EDF	Ľ	Excel		Fax		🖌 Email		Har	dCopy	🗌 Thi	irdParty	٦	-flag
Report to: Robert Flory		Email:	rflory@aeicor	sultants com			Bill to: De	enise M	ockel				Req	luested	I TAT:	5	days
AEI Consultan	Diablo, Ste. #200	TEL: PO:	(925) 283-6000 #262157; Om	) FAX: (925) 2	AE 25 W	El Consi 600 Carr alnut Cr	ultants nino Di reek, C	ablo, St A 9459 Insultan	7			03/26/2008 03/26/2008					
					Requested Tests							(See le	egend b	elow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0803669-001	MW-1		Water	3/25/2008 12:40		Α	А	В							Τ		Τ
0803669-002	MW-2		Water	3/25/2008 9:38		А		В									
0803669-003	MW-3		Water	3/25/2008 10:55		Α		В									
0803669-004	MW-4		Water	3/25/2008 13:50		Α		В									
0803669-005	MW-6		Water	3/25/2008 8:45		А		В									
0803669-006	MW-7		Water	3/25/2008 12:00		Α		В									
0803669-007	MW-8		Water	3/25/2008 9:15		Α		В									
0803669-008	MW-9		Water	3/25/2008 13:08		А		В									1
0803669-009	MW-10		Water	3/25/2008 10:43		А		В									
0803669-010	MW-11		Water	3/25/2008 11:30		А		В									
0803669-011	MW-12		Water	3/25/2008 14:30		Α		В									1

#### Test Legend:

1 G-MBTEX_W	2 PREDF R
6	7
11	12

PORT	3	TPH(DMO)_W
	8	

4	
9	

5	
10	

Prepared by: Maria Venegas

#### **Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



# McCampbell Analytical, Inc. "When Ouality Counts"

# Sample Receipt Checklist

Client Name:	AEI Consultants				Date a	:26:04 PM		
Project Name:	#262157; Omega	Termite			Check	klist completed and r	eviewed by:	Maria Venegas
WorkOrder N°:	0803669	Matrix <u>Water</u>			Carrie	r: <u>EnviroTech</u>		
		Chain	of Cu	stody (C	OC) Informa	ation		
Chain of custody	y present?		Yes		No 🗆			
Chain of custody	y signed when relinqu	ished and received?	Yes	$\checkmark$	No 🗆			
Chain of custody	y agrees with sample	labels?	Yes	<ul><li>✓</li></ul>	No 🗌			
Sample IDs noted	d by Client on COC?		Yes	✓	No 🗆			
Date and Time of	f collection noted by Cl	ient on COC?	Yes	✓	No 🗆			
Sampler's name	noted on COC?		Yes	✓	No 🗆			
		e	amplo	Pacaint	Information			
		<u></u>	ampie	<u>Neceipi</u>		<u>.</u>	_	
Custody seals in	tact on shipping conta	iner/cooler?	Yes		No 🗆		NA 🔽	
Shipping contain	er/cooler in good cond	lition?	Yes	$\checkmark$	No 🗆			
Samples in prop	er containers/bottles?		Yes	✓	No 🗆			
Sample containe	ers intact?		Yes	$\checkmark$	No 🗆			
Sufficient sample	e volume for indicated	test?	Yes	$\checkmark$	No 🗌			
		Sample Prese	rvatior	n and Ho	old Time (HT)	) Information		
A II	the state of the test state of the			<				
All samples rece	ived within holding tim	le ?	Yes	•			_	
Container/Temp	Blank temperature		Coole	er Temp:	2.2°C		NA	
Water - VOA via	lls have zero headspa	ce / no bubbles?	Yes	$\checkmark$	No 🗆	No VOA vials subm	itted	
Sample labels cl	hecked for correct pre	servation?	Yes	$\checkmark$	No 🗌			
TTLC Metal - pH	acceptable upon rece	ipt (pH<2)?	Yes		No 🗆		NA 🗹	

Client contacted:

Date contacted:

Contacted by:

Comments:

	McCampbell	Analy uality Counts'		2	Web: www.m		Pittsburg, CA 94565 E-mail: main@mcca 52 Fax: 925-252-9	mpbell.com			
AEI Co	nsultants		Client Proje	ect ID: #262	157; Omega To		Date Sample				
2500 Ca	amino Diablo, Ste. #200						Date Received: 03/26/08				
			Client Con	tact: Robert	Flory		Date Extracted: 03/28/08-03/30/08				
Walnut	Creek, CA 94597		Client P.O.	:			Date Analyz	ed 03/28/08	-03/30	/08	
Extraction	Gasolin method SW5030B	e Range (	,	tile Hydrocal		line with BTI	EX and MTBE	* Work Order	: 0803	3669	
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Ethylbenzene	Xylenes	% SS			
001A	MW-1	W	980,a	ND<10	270	1.4	6.6	13	1	103	
002A	MW-2	W	420,a	ND	1.1	5.1	0.80	3.6	1	120	
003A	MW-3	W	ND	ND	ND	ND	ND	ND	1	105	
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	109	
005A	MW-6	W	ND	ND	ND	ND	ND	ND	1	103	
006A	MW-7	W	ND	ND	ND	ND	ND	ND	1	91	
007A	MW-8	W	ND	ND	ND	ND	ND	ND	1	90	
008A	MW-9	W	740,a	10	290	1.5	2.6	16	1	95	
009A	MW-10	W	340,f,a	ND	0.95	ND	ND	1.1	1	106	
010A	MW-11	W	ND	ND	ND	ND	ND	ND	1	99	
011A	MW-12	W	ND	ND	ND	ND	ND	ND	1	106	
	rting Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L	
	eans not detected at or ve the reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/Kg	

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples 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 (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.



<u>McC</u>	ampbell Analyti	cal, Inc.	Web: www.mcc		campbell.con	1			
AEI Consultants	"When Ouality Counts"	Client Project II	D: #262157; Omega	Date Sampled: 03/	-9269 25/08				
AEr Consultants		Termite	D. #202157, Officga						
2500 Camino Diab	lo, Ste. #200				Date Received:03/26/08Date Extracted:03/26/08				
Walnut Creek, CA	94597	Client Contact:	Robert Flory	Date Extracted: 03/					
		Client P.O.:		Date Analyzed 03/	28/08				
I Extraction method: SW35		-	ractable Hydrocarbons a nethods: SW8015C	as Diesel and Motor Oil* Wor	k Order: 08	803669			
Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS			
0803669-001B	MW-1	W	450,b,d	ND	1	106			
0803669-002B	MW-2	W	300,d,b	ND	1	107			
0803669-003B	MW-3	W	63,b	ND	1	100			
0803669-004B	MW-4	W	ND	ND	1	115			
0803669-005B	MW-6	W	ND	ND	1	119			
0803669-006B	MW-7	W	ND	ND	1	117			
0803669-007B	MW-8	W	ND	ND	1	115			
0803669-008B	MW-9	W	210,b,d	ND	1	116			
0803669-009B	MW-10	W	82,b	ND	1	115			
0803669-010B	MW-11	W	ND	ND	1	106			
0803669-011B	MW-12	W	ND	ND	1	114			
	ng Limit for $DF = 1$ ;	W	50	250	μϼ	g/L			
	ns not detected at or the reporting limit	S	NA	NA		/Kg			

\* water samples are reported in  $\mu$ g/L, wipe samples in  $\mu$ g/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in  $\mu$ g/L.

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant (cooking oil?); h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) kerosene/kerosene range; l) bunker oil range (?); no recognizable pattern; m) fuel oil; n) stoddard solvent/mineral spirits; p) see attached narrative.



"When Ouality Counts"

#### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0803669

EPA Method SW8021B/8015Cm	Extrac	ction SW	5030B		Ba	chID: 34	638	Sp	iked Samp	ole ID:	0803666-00	6A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
Analyte	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex <sup>f</sup>	ND	60	94	92.2	1.93	98.3	96.4	1.92	70 - 130	20	70 - 130	20
MTBE	ND	10	96.7	108	11.2	99.9	105	4.95	70 - 130	20	70 - 130	20
Benzene	ND	10	93.4	99	5.80	97.7	102	4.08	70 - 130	20	70 - 130	20
Toluene	ND	10	85.4	91.2	6.60	88.9	92.9	4.43	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	94.9	99.7	4.95	100	102	2.32	70 - 130	20	70 - 130	20
Xylenes	ND	30	92.8	95.5	2.84	95.7	97.2	1.57	70 - 130	20	70 - 130	20
%SS:	112	10	96	102	5.98	91	95	4.67	70 - 130	20	70 - 130	20

NONE

#### BATCH 34638 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0803669-001A	03/25/08 12:40 PM	03/29/08	03/29/08 2:27 PM	0803669-002A	03/25/08 9:38 AM	03/30/08	03/30/08 1:08 AM
0803669-003A	03/25/08 10:55 AM	03/29/08	03/29/08 3:11 AM	0803669-004A	03/25/08 1:50 PM	03/29/08	03/29/08 3:41 AM
0803669-005A	03/25/08 8:45 AM	03/29/08	03/29/08 4:42 AM	0803669-006A	03/25/08 12:00 PM	03/28/08	03/28/08 10:11 PM
0803669-007A	03/25/08 9:15 AM	03/28/08	03/28/08 10:46 PM	0803669-008A	03/25/08 1:08 PM	03/29/08	03/29/08 2:17 AM
0803669-009A	03/25/08 10:43 AM	03/30/08	03/30/08 2:09 AM	0803669-010A	03/25/08 11:30 AM	03/29/08	03/29/08 2:52 AM
0803669-011A	03/25/08 2:30 PM	03/29/08	03/29/08 3:27 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

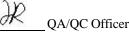
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.





"When Ouality Counts"

#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0803669

EPA Method SW8015C	EPA Method SW8015C Extraction SW3510C						597	Spiked Sample ID: N/A				
Analyte	Sample Spiked MS MS				MS-MSD	MS-MSD LCS		LCS-LCSD	Acceptance Criteria (%)			
, mary to	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	116	119	2.52	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	103	103	0	N/A	N/A	70 - 130	30
All target compounds in the Method B								Ť			70 - 150	

			BATCH 34597 SU	JMMARY			
Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0803669-001B	03/25/08 12:40 PM	03/26/08	03/28/08 4:51 AM	0803669-002B	03/25/08 9:38 AM	03/26/08	03/28/08 5:58 AM
0803669-003B	03/25/08 10:55 AM	03/26/08	03/28/08 8:23 PM	0803669-004B	03/25/08 1:50 PM	03/26/08	03/28/08 1:06 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

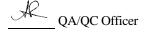
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0803669

EPA Method SW8015C	Extra	Extraction SW3510C					BatchID: 34642			Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)			
	μg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD		
TPH(d)	N/A	1000	N/A	N/A	N/A	111	110	0.512	N/A	N/A	70 - 130	30		
%SS:	N/A	2500	N/A	N/A	N/A	110	108	1.02	N/A	N/A	70 - 130	30		

#### BATCH 34642 SUMMARY Lab ID **Date Sampled** Date Extracted Date Analyzed Lab ID Date Sampled Date Extracted Date Analyzed 0803669-005B 03/25/08 8:45 AM 03/26/08 03/28/08 2:15 PM 0803669-006B 03/25/08 12:00 PM 03/26/08 03/28/08 3:23 PM 0803669-007B 03/26/08 03/28/08 4:31 PM 0803669-008B 03/25/08 1:08 PM 03/26/0803/28/08 5:40 PM 03/25/08 9:15 AM 03/28/08 9:40 PM 0803669-009B 03/25/08 10:43 AM 03/26/08 03/28/08 7:56 PM 0803669-010B 03/25/08 11:30 AM 03/26/08 0803669-011B 03/25/08 2:30 PM 03/26/08 03/28/08 10:48 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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