



JW R0202

June 27, 2005

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Alameda County
JUN 30 2005
Environmental Health

Subject: 245 8th Street
 Oakland, CA
 AEI Project No. 9482
 ACHCSA Case No. RO0000202 / State ID 263

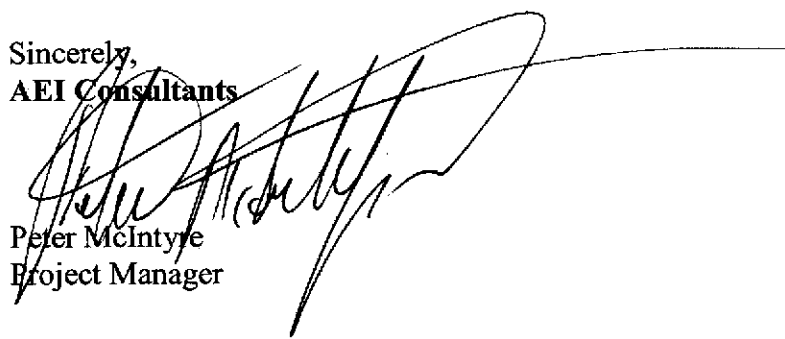
Dear Mr. Chan:

Enclosed is the Quarterly Monitoring Report for the 2nd Quarter 2005 for the above referenced property.

The previously approved 5-day dual phase extraction event is scheduled to begin July 11, 2005. Should you wish to coordinate a site visit or have any questions on these planned activities, please contact me. Additional activities planned for the site are included in the summary of the enclosed report.

If you have any questions or would like to discuss the site in more detail, please contact me at (925) 283-6000, extension 104 or pmcintyre@aeiconsultants.com.

Sincerely,
AEI Consultants


Peter McIntyre
Project Manager

June 27, 2005

Alameda County
JUN 30 2005
Environmental Health

GROUNDWATER MONITORING REPORT
2nd Quarter, 2005

245 8th Street
Oakland, California 94607

AEI Project No. 9482
ACHCSA Case No. RO0000202 / State ID 263

Prepared For

Mr. Vic Lum
Vic's Automotive
245 8th Street
Oakland, CA 94607

Prepared By

AEI Consultants
2500 Camino Diablo Blvd., Suite 200
Walnut Creek, California 94597
(925) 283-6000

AEI



June 27, 2005

Mr. Vic Lum
Vic's Automotive
245 8th Street
Oakland, CA 94607

**Subject: Quarterly Groundwater Monitoring Report
2nd Quarter, 2004**
245 8th Street
Oakland, California 94607
AEI Project No. 9482
ACHCSA Case No. RO0000202 / State ID 263

Dear Mr. Lum:

AEI Consultants (AEI) has prepared this report to document the continued groundwater investigation at the above referenced site (Figure 1: Site Location Map). This work is being performed in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA) to document the groundwater quality associated with the release of fuel hydrocarbons from the former underground storage tank system. This report presents the findings of the 2nd Quarter 2005 episode of groundwater monitoring and sampling for the twelve on-site wells conducted on May 9, 2005.

Site Description and Background

The subject property (hereafter referred to as the "site" or "property") is located in a commercial and residential area of Oakland. The site is a lot on the south corner of Alice Street and 8th Street, and is currently developed with a gasoline station and auto repair facility. Refer to Figure 2 for a visual description of the site.

Between June 1993 and August 1994, AEI removed a total of seven (7) underground storage tanks (USTs) from the property. The tanks consisted of four (4) 1,000-gallon and two (2) 6,000-gallon gasoline tanks and one (1) 250-gallon waste oil tank. The former locations of the tanks are shown on Figure 2. Impacted soil was removed from beneath the former tank area. Groundwater was encountered beneath the former 6,000-gallon tanks. Light non-aqueous phase liquid (LNAPL) was observed on the water table beneath the southern tank. The excavated soil was transported to an appropriate disposal facility and the excavation was backfilled with clean fill material. A new tank system was installed just west of the dispenser island.

Two groundwater monitoring wells (MW-1 and MW-2) were installed in July 1995. The first two episodes of monitoring revealed total petroleum hydrocarbons as gasoline (TPH-g) and Benzene up to 210,000 µg/L and 720 µg/L, respectively, in MW-2. Free phase gasoline product, a LNAPL, was discovered in MW-1, which ranged from 1.20 to 4.39 feet thick between December 1995 and March 1996.

Three soil borings (SB-1 through SB-3) were advanced in August 1996. Groundwater samples collected from each of the borings contained TPH-g and Benzene ranging from 120,000 to 140,000 µg/L, and from 12,000 to 19,000 µg/L, respectively. Methyl tertiary-butyl ether (MTBE) was also present in all three samples, up to 27,000 µg/L. Although free phase product was not observed in the field, qualitative laboratory observations indicated immiscible sheen. Manual bailing and pumping of NAPL from MW-1, and monitoring of MW-2 occurred intermittently through 1997.

Two additional groundwater monitoring wells (MW-3 and MW-4) were installed in May 2001. Refer to Tables 1 and 2 for data collected from these wells. A free phase product recovery pump was installed in MW-1 in June 2001. Fourteen (14) additional soil borings were performed on and offsite in 2003, from which soil, groundwater, and soil vapor samples were collected to further characterize the extent of the release.

On January 11, 19, and 20, 2005, AEI installed a total of six (6) additional wells, three (3) extraction/monitoring wells on the subject site and three (3) extraction/monitoring wells at 708 Alice Street. The locations of the six (6) additional wells (labeled MW-5 through MW-7 and MW-10 through MW-12) are shown on Figure 2.

Summary of Monitoring Activities

Monitoring and sampling activities were performed on May 9, 2005. The well locations are shown in Figure 2. After opening the wells and allowing water levels to equilibrate with atmospheric pressure, the depth to static groundwater from the top of the well casings was measured prior to sampling with an electric water level indicator. An oil-water interface meter was used to measure thickness of free phase product observed in MW-1 and MW-7. The eight wells with no measurable thickness of floating product (MW-2 through MW-6 and MW-10 through MW-12) were purged of at least three well volumes of water with a submersible purge pump. During well purging, the following water quality parameters were measured: temperature, pH, specific conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP); turbidity was visually noted. Once water levels recovered to at least 90% of their original levels, water samples were collected.

Groundwater samples were collected with new, unused disposable bailers into 40-milliliter (mL) volatile organic analysis (VOA) vials. The vials were capped so that neither visible head space nor air bubbles were present within the sample containers. The samples were preserved on ice

and transported under chain of custody to McCampbell Analytical, Inc. of Pacheco, California (Department of Health Services Certification #1644).

The eight groundwater samples collected were analyzed for TPH-g (EPA method 8015C), Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX) (EPA method 8021B), and MTBE (EPA method 8021B).

Field Results

Free phase product thickness was measured in well MW-1 and MW-7 at 0.12 and 0.03 feet thick, respectively. No measurable thickness of free phase product was present in the remaining wells. Groundwater levels for the current monitoring episode ranged from 13.18 to 14.18 feet above mean sea level (amsl) in wells MW-2 through MW-4. These groundwater elevations were an average of 0.19 feet lower than the previous monitoring episode (February 3, 2005). The groundwater flow direction at the time of measurement was south-southeast with a hydraulic gradient calculated at 0.008 ft/ft. The calculated groundwater flow direction and gradient are nearly identical to the November 2004 (14th) episode.

Groundwater elevation data are summarized in Table 1. A summary of groundwater elevations and flow directions is presented in Table 2. Water table contours and the groundwater flow direction are depicted in Figure 4. Refer to Appendix A for the Groundwater Monitoring Well Field Sampling Forms.

Groundwater Quality

The highest concentrations of petroleum hydrocarbons were detected in MW-2, MW-6, MW-11, and MW-12. TPH-g, MTBE, Benzene, Toluene, and Xylenes in these wells were detected at concentrations up to 210,000 µg/L, 91,000 µg/L, 44,000 µg/L, 43,000 µg/L, and 16,000 µg/L, respectively. Lower but elevated concentrations of TPH-g were detected in MW-5 and MW-10. Low to non-detectable concentrations of site contaminants were detected in MW-3 and MW-4. A summary of groundwater quality data is presented in Table 3 and on Figure 3. Laboratory results and chain of custody documents are included in Appendix B.

Summary

This report presents the findings of the 2nd Quarter 2005 groundwater monitoring event performed at the site. Results are consistent with previous findings, which indicate that significant free phase fuel and dissolved phase hydrocarbons exist on and offsite. The following tasks are planned for the next quarter.

- The previously approved 5-day high vacuum dual phase extraction event is scheduled to begin on July 11, 2005, pending treated water discharge permit approval
- Due to the strict insurance requirements of the City of Oakland for the installation of monitoring wells in the public-right-of way (owner's insurance carrier will not insure wells in accordance with City requirements), previously proposed wells MW-8 and MW-9 will not be installed at this time. Other well locations / insurance arrangements will have to be worked out.
- Survey recently installed wells (MW-5 to MW-7 and MW-10 to MW-12). The survey was delayed pending installation of MW-8 and MW-9. Due to the indefinite delay for their installation, the survey will now be performed. Groundwater flow direction data will be calculated for the previous events (2/3/05 and 5/9/05).
- Continue quarterly groundwater monitoring, with the next event scheduled for early August 2005.

The ACHCSA will be notified of any delays to the tasks outlined above.

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 that existed at the time and location of the work. If you have any questions or need any additional information, please contact Mr. McIntyre at (925) 283-6000, extension 104.

Sincerely,

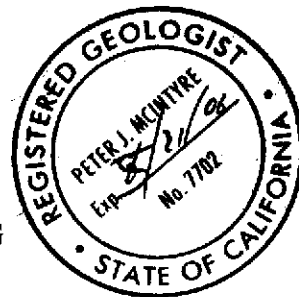
AEI Consultants



Jeremy Quick
Staff Geologist



Peter J. McIntyre, PG
Project Manager



Figures

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 Hydrocarbon Concentrations 5/9/05
- Figure 4 Groundwater Gradient 5/9/05

Tables

- Table 1 Groundwater Elevation Data
- Table 2 Groundwater Flow Summary
- Table 3 Groundwater Sample Analytical Data

Appendix A Monitoring Well Field Sampling Forms

Appendix B Laboratory Reports With Chain of Custody Documentation

Report Distribution:

Mr. Victor Lum, 245 8th Street, Oakland, CA 94607

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



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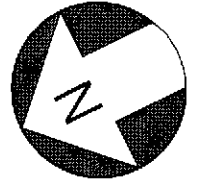
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AEI CONSULTANTS
2500 CAMINO DIABLO BLVD, STE 100, WALNUT CREEK

SITE LOCATION MAP

245 8th STREET
OAKLAND, CALIFORNIA

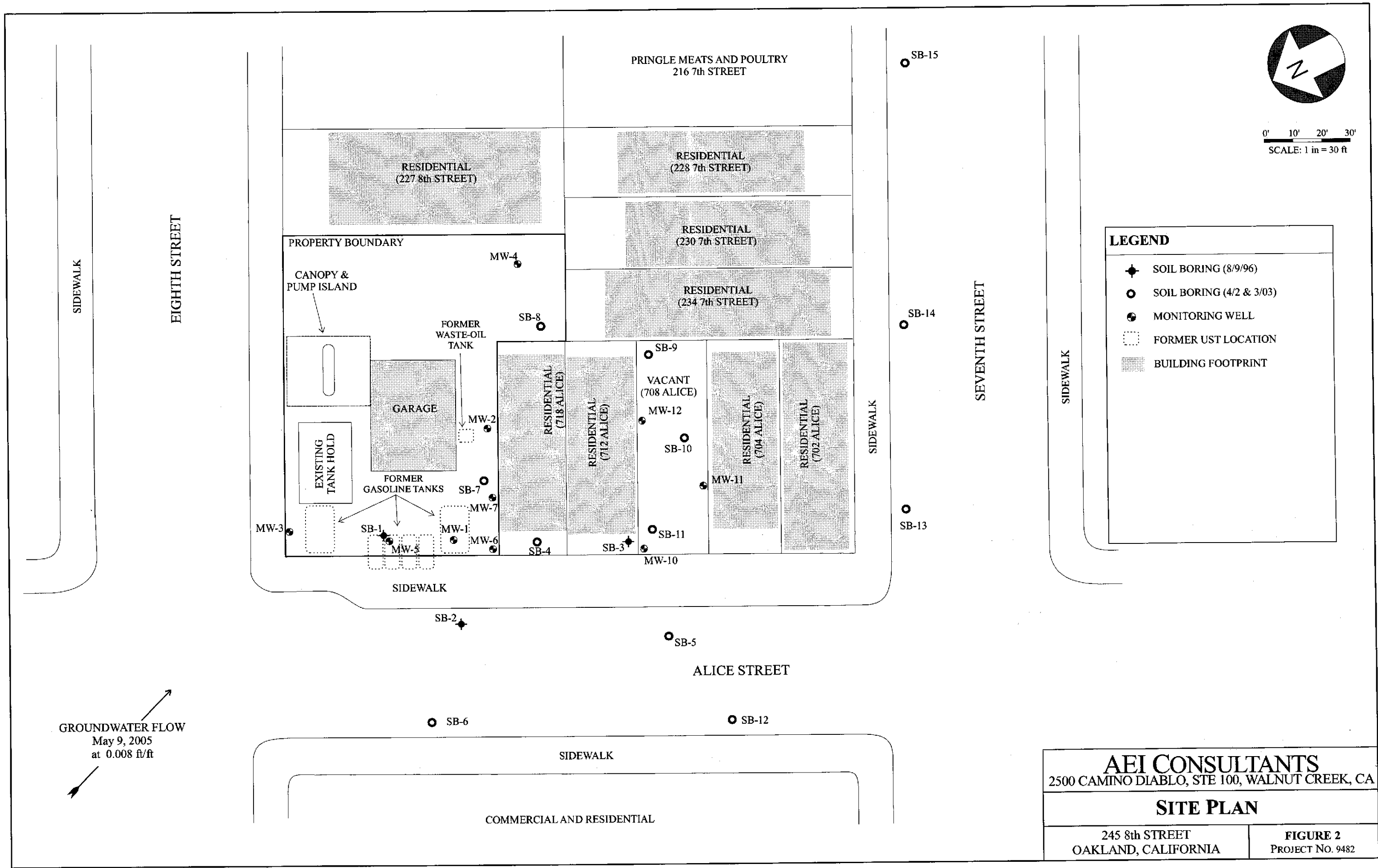
FIGURE 1
PROJECT No. 9482



0' 10' 20' 30'
SCALE: 1 in = 30 ft

LEGEND

- ◆ SOIL BORING (8/9/96)
- SOIL BORING (4/2 & 3/03)
- MONITORING WELL
- FORMER UST LOCATION
- ▨ BUILDING FOOTPRINT

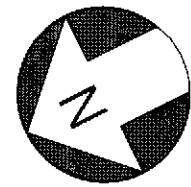


AEI CONSULTANTS
2500 CAMINO DIABLO, STE 100, WALNUT CREEK, CA

SITE PLAN

245 8th STREET
OAKLAND, CALIFORNIA

FIGURE 2
PROJECT NO. 9482



0' 10' 20' 30'

SCALE: 1 in = 30 ft

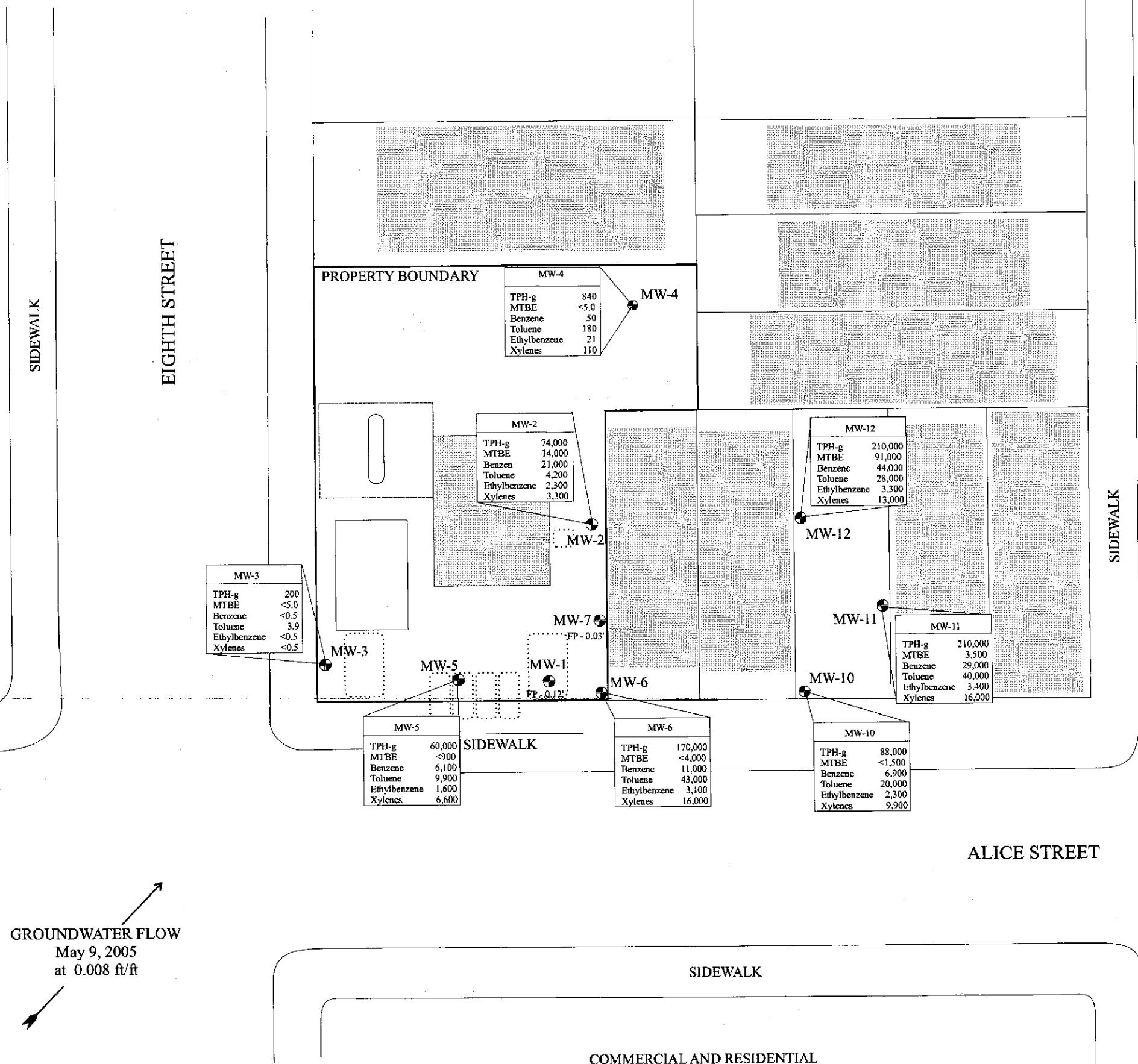
LEGEND

- MONITORING WELL
- FORMER UST LOCATION
- BUILDING FOOTPRINT

MW-10	
TPH-g	88,000
MTBE	ND>1,500
Benzene	6,900
Toluene	20,000
Ethylbenzene	2,300
Xylenes	9,900

Analytical results (ug/L)

TPH-g = Total Petroleum Hydrocarbons as gasoline
 MTBE = Methyl tertiary-Butyl Ether
 FP-0.17' = Floating Product thickness (feet)



MW-4	
TPH-g	840
MTBE	<5.0
Benzene	50
Toluene	180
Ethylbenzene	21
Xylenes	110

MW-2	
TPH-g	74,000
MTBE	14,000
Benzen	21,000
Toluene	4,200
Ethylbenzene	2,300
Xylenes	3,300

MW-12	
TPH-g	210,000
MTBE	91,000
Benzene	44,000
Toluene	28,000
Ethylbenzene	3,300
Xylenes	13,000

MW-3	
TPH-g	200
MTBE	<5.0
Benzene	<0.5
Toluene	3.9
Ethylbenzene	<0.5
Xylenes	<0.5

MW-11	
TPH-g	210,000
MTBE	3,500
Benzene	29,000
Toluene	40,000
Ethylbenzene	3,400
Xylenes	16,000

MW-5	
TPH-g	60,000
MTBE	<900
Benzene	6,100
Toluene	9,900
Ethylbenzene	1,600
Xylenes	6,600

MW-6	
TPH-g	170,000
MTBE	<4,000
Benzene	11,000
Toluene	43,000
Ethylbenzene	3,100
Xylenes	16,000

MW-10	
TPH-g	88,000
MTBE	<1,500
Benzene	6,900
Toluene	20,000
Ethylbenzene	2,300
Xylenes	9,900

AEI CONSULTANTS
 2500 CAMINO DIABLO, STE 100, WALNUT CREEK, CA

HYDROCARBON CONCENTRATIONS 5/9/05

245 8th STREET OAKLAND, CALIFORNIA	FIGURE 3 PROJECT NO. 9482
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0' 10' 20' 30'
SCALE: 1 in = 30 ft

LEGEND

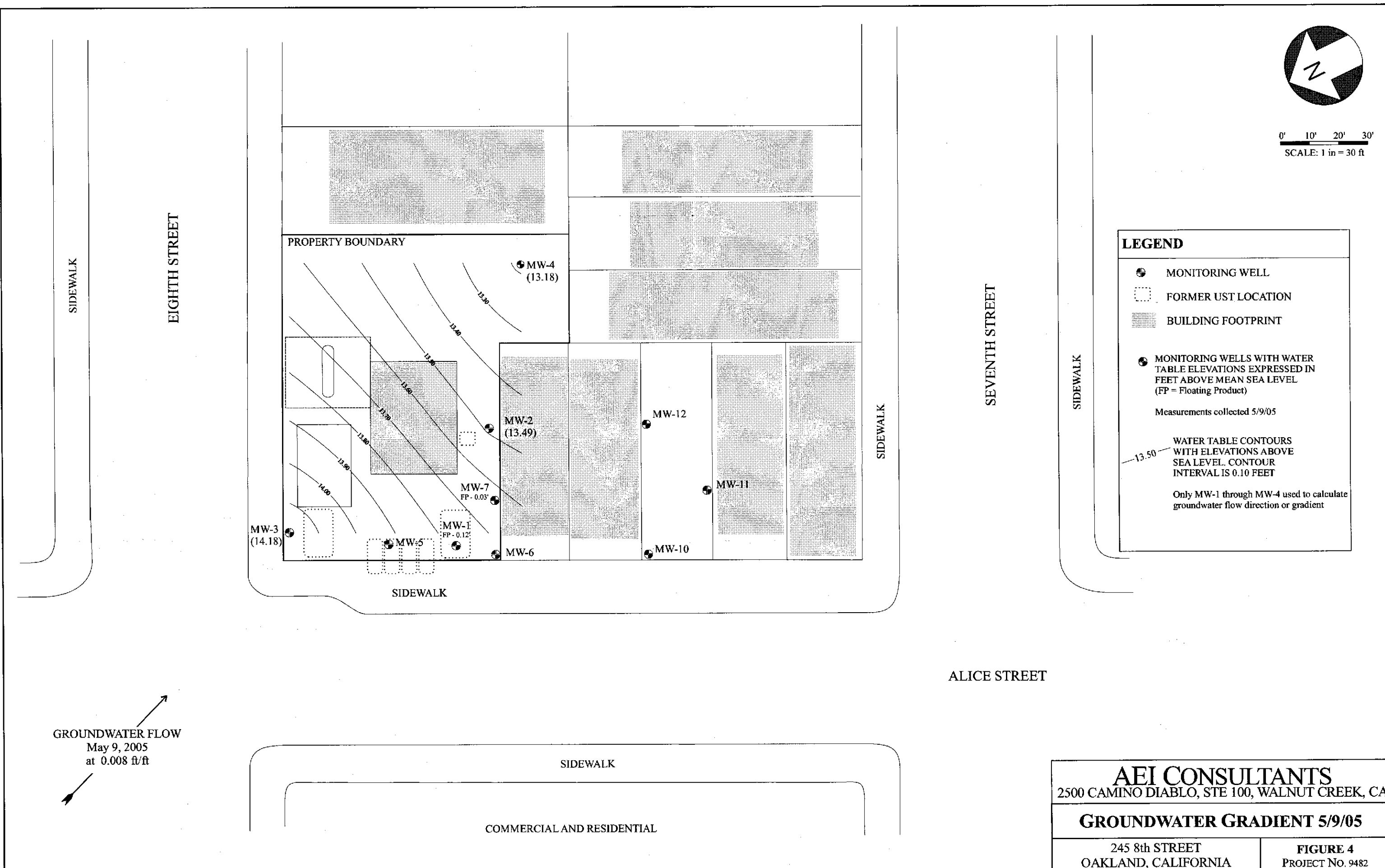
- MONITORING WELL
- FORMER UST LOCATION
- BUILDING FOOTPRINT

MONITORING WELLS WITH WATER TABLE ELEVATIONS EXPRESSED IN FEET ABOVE MEAN SEA LEVEL (FP = Floating Product)

Measurements collected 5/9/05

WATER TABLE CONTOURS WITH ELEVATIONS ABOVE SEA LEVEL. CONTOUR INTERVAL IS 0.10 FEET

Only MW-1 through MW-4 used to calculate groundwater flow direction or gradient



GROUNDWATER FLOW
May 9, 2005
at 0.008 ft/ft

AEI CONSULTANTS
2500 CAMINO DIABLO, STE 100, WALNUT CREEK, CA

GROUNDWATER GRADIENT 5/9/05

245 8th STREET OAKLAND, CALIFORNIA	FIGURE 4 PROJECT NO. 9482
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**Table 1: Groundwater Elevation Data
Vic's Automotive, 245 8th Ave, Oakland, CA**

Well ID	Date Collected	Well Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-1	6/29/2001	27.73	16.52	*	14.89	1.63
	10/10/2001	27.73	15.45	*	15.37	0.08
	1/9/2002	27.73	12.61	15.12*	-	<0.01
	4/24/2002	27.73	13.35	14.38*	-	<0.01
	7/24/2002	27.73	14.19	13.44*	-	<0.01
	11/5/2002	27.73	14.85	12.88*	-	<0.01
	2/4/2003	27.73	14.91	12.82*	-	<0.01
	5/2/2003	27.73	14.43	13.30*	-	0.08
	8/4/2003	27.73	15.24	12.49*	15.01	0.23
	11/3/2003	27.73	16.94	10.79*	15.67	1.27
	2/9/2004	27.73	14.61	13.12*	14.43	0.18
	5/10/2004	-	-	-	-	Inaccessible
	8/9/2004	27.73	15.24	12.49*	15.03	0.21
	11/9/2004	27.73	15.95	11.78*	15.71	0.24
	2/3/2005	27.73	13.75	13.98*	13.58	0.17
	5/9/2005	27.73	13.93	13.80*	13.81	0.12
MW-2	6/29/2001	28.16	16.14	12.02	-	-
	10/10/2001	28.16	16.43	11.73	-	-
	1/9/2002	28.16	13.50	14.66	-	-
	4/24/2002	28.16	14.40	13.76	-	-
	7/24/2002	28.16	14.91	13.25	-	-
	11/5/2002	28.16	16.96	11.20	-	-
	2/4/2003	28.16	15.42	12.74	-	-
	5/2/2003	28.16	15.24	12.92	-	-
	8/4/2003	28.16	15.98	12.18	-	-
	11/3/2003	28.16	16.60	11.56	-	Sheen
	2/9/2004	28.16	15.22	12.94	-	Sheen
	5/10/2004	28.16	15.34	12.82	-	Sheen
	8/9/2004	28.16	15.92	12.24	-	Sheen
	11/9/2004	28.16	16.51	11.65	-	Sheen
2/3/2005	28.16	14.44	13.72	-	Sheen	
5/9/2005	28.16	14.67	13.49	-	Sheen	
MW-3	6/29/2001	29.21	16.60	12.61	-	-
	10/10/2001	29.21	16.92	12.29	-	-
	1/9/2002	29.21	14.20	15.01	-	-
	4/24/2002	29.21	15.07	14.14	-	-
	7/24/2002	29.21	16.40	12.81	-	-
	11/5/2002	29.21	16.47	12.74	-	-
	2/4/2003	29.21	16.92	12.29	-	-
	5/2/2003	29.21	15.45	13.76	-	-
	8/4/2003	29.21	16.46	12.75	-	-
	11/3/2003	29.21	17.15	12.06	-	-
	2/9/2004	29.21	15.78	13.43	-	-
	5/10/2004	29.21	15.77	13.44	-	-
	8/9/2004	29.21	16.45	12.76	-	-
	11/9/2004	29.21	17.26	11.95	-	-
2/3/2005	29.21	15.92	13.29	-	-	
5/9/2005	29.21	15.03	14.18	-	-	

Table 1: Groundwater Elevation Data
Vic's Automotive, 245 8th Ave, Oakland, CA

Well ID	Date Collected	Well Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-4	6/29/2001	29.38	17.71	11.67	-	-
	10/10/2001	29.38	18.00	11.38	-	-
	1/9/2002	29.38	15.02	14.36	-	-
	4/24/2002	29.38	15.74	13.64	-	-
	7/24/2002	29.38	16.69	12.69	-	-
	11/5/2002	29.38	17.64	11.74	-	-
	2/4/2003	29.38	16.02	13.36	-	-
	5/2/2003	29.38	16.72	12.66	-	-
	8/4/2003	29.38	17.51	11.87	-	-
	11/3/2003	29.38	18.09	11.29	-	-
	2/9/2004	29.38	16.67	12.71	-	-
	5/10/2004	29.38	16.89	12.49	-	-
	8/9/2004	29.38	17.44	11.94	-	-
	11/9/2004	29.38	17.89	11.49	-	-
2/3/2005	29.38	14.98	14.40	-	-	
5/9/2005	29.38	16.20	13.18	-	-	
MW-5	2/3/2005	---	14.23	---	-	-
	5/9/2005	---	14.33	---	-	-
MW-6	2/3/2005	---	13.99	---	-	-
	5/9/2005	---	13.61	---	-	-
MW-7	2/3/2005	---	14.17	---	-	-
	5/9/2005	---	14.47	---	14.44	0.03
MW-10	2/3/2005	---	12.65	---	-	-
	5/9/2005	---	13.09	---	-	-
MW-11	2/3/2005	---	13.39	---	-	-
	5/9/2005	---	13.89	---	-	-
MW-12	2/3/2005	---	13.70	---	-	-
	5/9/2005	---	14.17	---	-	-

* = Groundwater elevation affected by free product
 All well elevations are measured from the top of the casing
 LNAPL = light non-aqueous phase liquid (floating free product)

- = not applicable
 ft amsl = feet above mean sea level

Table 2: Groundwater Flow Summary
Vic's Automotive, 245 8th Ave, Oakland, CA

Episode #	Date	Average Water Table Elevation*	Change from Previous Episode	Flow direction (gradient)
1	6/29/2001	12.10	-	SSE (0.0074)
2	10/10/2001	11.80	-0.30	SSE (0.0071)
3	1/9/2002	14.68	2.88	SE (0.0054)
4	4/24/2002	13.85	-0.83	SSW (0.005)
5	7/24/2002	12.92	-0.93	NE (0.021)
6	11/5/2002	11.89	-1.02	SW (0.019)
7	2/4/2003	12.80	0.90	NNW (0.01)
8	5/2/2003	13.11	0.32	SSE (0.01)
9	8/4/2003	12.27	-0.85	SSE(0.007)
10	11/3/2003	11.64	-0.63	SSE (0.006)
11	2/9/2004	13.03	1.39	SSE (0.006)
12	5/10/2004	12.92	-0.11	SSE (0.008)
13	8/9/2004	12.31	-0.60	SSE (0.006)
14	11/9/2004	11.70	-0.62	SSE (0.004)
15	2/3/2005	13.80	2.11	WNW (0.001)
16	5/9/2005	13.62	-0.19	SSE (0.008)

LNAPL = light non-aqueous phase liquid (floating free product)

* MW-2 to MW-4 only

Water table elevations in feet above mean sea level

- = not applicable

Table 3: Groundwater Analytical Data
Vic's Automotive, 245 8th Ave, Oakland, CA

Well/Sample ID	Date Collected	Apparent LNAPL thickness (ft)	TPH-g	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
			mg/L <i>EPA Method 8015Cm</i>	mg/L	mg/L	mg/L	mg/L	mg/L
MW-1	6/29/2001	1.63	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	10/10/2001	0.08	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	1/9/2002	<0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	4/24/2002	<0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	7/24/2002	~0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	11/5/2002	~0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	2/4/2003	~0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	5/2/2003	0.08	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	8/4/2003	0.23	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	11/3/2003	1.27	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	2/9/2004	0.18	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	5/10/2004	Inaccessible	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	8/9/2004	0.21	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	11/9/2004	0.24	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
	2/3/2005	0.17	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
5/9/2005	0.12	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	
MW-2	6/29/2001	0.0	69,000	4100/4400*	7,200	6,100	1,500	7,000
	10/10/2001	0.0	87,000	14,000	22,000	12,000	2,700	9,100
	1/9/2002	0.0	130,000	11,000	30,000	19,000	3,800	14,000
	4/24/2002	Sheen	210,000	32,000	38,000	23,000	4,600	19,000
	7/24/2002	Sheen	170,000	36,000	48,000	12,000	3,700	8,600
	11/5/2002	Sheen	190,000	36,000	45,000	25,000	4,600	16,000
	2/4/2003	Sheen	150,000	27,000	51,000	24,000	4,200	14,000
	5/2/2003	Sheen	150,000	35,000	39,000	11,000	3,800	9,900
	8/4/2003	Sheen	120,000	29,000	32,000	5,000	3,200	7,200
	11/3/2003	Sheen	120,000	24,000	33,000	4,300	3,200	5,400
	2/9/2004	Sheen	130,000	19,000	27,000	7,700	3,100	7,600
	5/10/2004	Sheen	67,000	13,000	20,000	3,000	2,300	4,100
	8/9/2004	Sheen	100,000	22,000	27,000	7,100	2,800	6,600
	11/9/2004	Sheen	100,000	23,000	27,000	6,100	3,000	5,600
	2/3/2005	Sheen	84,000	11,000	23,000	5,000	3,000	5,500
5/9/2005	Sheen	74,000	14,000	21,000	4,200	2,300	3,300	
MW-3	6/29/2001	0.0	550	<5.0	<0.5	3.1	3.2	1.2
	10/10/2001	0.0	470	<5.0	0.77	5.3	3.3	5.9
	1/9/2002	0.0	1,000	<5.0	0.90	7.6	7.8	25
	4/24/2002	0.0	1,500	<5.0	0.64	7.2	12	14
	7/24/2002	0.0	1,200	<5.0	10	17.0	11	25
	11/5/2002	0.0	1,800	<25	33	43.0	18	31
	2/4/2003	0.0	450	<5.0	<0.5	5.0	<0.5	0.77
	5/2/2003	0.0	340	<5.0	7.3	10.0	2.5	7.3
	8/4/2003	0.0	170	<5.0	5.8	5.9	1.5	4.9
	11/3/2003	0.0	54	<5.0	<0.5	<0.5	<0.5	<0.5
	2/9/2004	0.0	190	<5.0	<0.5	3.6	<0.5	<0.5
	5/10/2004	0.0	280	<5.0	<0.5	3.4	<0.5	<0.5
	8/9/2004	0.0	290	<5.0	<0.5	3.8	<0.5	<0.5
	11/9/2004	0.0	220	<5.0	<0.5	4.0	<0.5	<0.5
	2/3/2005	0.0	160	<5.0	13	30	3.0	21
5/9/2005	0.0	200	<5.0	<0.5	3.9	<0.5	<0.5	

Table 3: Groundwater Analytical Data
Vic's Automotive, 245 8th Ave, Oakland, CA

Well/Sample ID	Date Collected	Apparent LNAPL thickness (ft)	TPH-g mg/L	MTBE mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L
MW-4	6/29/2001	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	10/10/2001	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	1/9/2002	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	4/24/2002	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	7/24/2002	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	11/5/2002	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	2/4/2003	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	5/2/2003	0.0	500	10	68	71	18	65
	8/4/2003	0.0	270	<5.0	30	29	9.2	32
	11/3/2003	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	2/9/2004	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	5/10/2004	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	8/9/2004	0.0	130	<5.0	14	13	5.3	17
	11/9/2004	0.0	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	2/3/2005	0.0	370	<5.0	<0.5	4.1	<0.5	0.64
5/9/2005	0.0	840	<5.0	50	180	21	110	
MW-5	2/3/2005	0.0	78,000	<1,000	7,600	13,000	2,200	9,600
	5/9/2005	0.0	60,000	<900	6,100	9,900	1,600	6,600
MW-6	2/3/2005	Sheen	130,000	<1,000	2,400	33,000	2,400	15,000
	5/9/2005	Sheen	170,000	<4,000	11,000	43,000	3,100	16,000
MW-7	2/3/2005	Sheen	220,000	18,000	45,000	44,000	3,500	18,000
	5/9/2005	0.03	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp
MW-10	2/3/2005	0.0	36,000	<500	4,700	7,200	660	3,400
	5/9/2005	0.0	88,000	<1,500	6,900	20,000	2,300	9,900
MW-11	2/3/2005	Sheen	170,000	<3,000	23,000	35,000	3,100	16,000
	5/9/2005	Sheen	210,000	3,500	29,000	40,000	3,400	16,000
MW-12	2/3/2005	Sheen	250,000	100,000	52,000	41,000	3,400	15,000
	5/9/2005	Sheen	210,000	91,000	44,000	28,000	3,300	13,000

mg/L = micrograms per liter

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

ns/fp = not sampled / free product

LNAPL = Light Non-Aqueous Phase Liquid

* samples re-analyzed by EPA Method 8260 (expressed as EPA 8020 / EPA 8260)

Please refer to Appendix B: Lab Results for further detailed lab information including dilution factors

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Vic's Automotive	Date of Sampling:	5/9/2005
Job Number:	9482	Name of Sampler:	Adrian Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	27.73		
Depth of Well	25.00		
Depth to Water (from top of casing)	13.93		
Depth to Free Product (from top of casing)	13.81		
Water Elevation (feet above msl)	13.80		
Well Volumes Purged	N/A		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	N/A		
Actual Volume Purged (gallons)	N/A		
Appearance of Purge Water	N/A		
Free Product Present?	Yes	Thickness (ft):	0.12

GROUNDWATER SAMPLES

Number of Samples/Container Size		Not sampled due to presence of free product.					
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments

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

Well was neither purged nor sampled due to the presence of free product.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Vic's Automotive	Date of Sampling:	5/9/2005
Job Number:	9482	Name of Sampler:	Adrian Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK <input type="button" value="▼"/>		
Elevation of Top of Casing (feet above msl)	28.16		
Depth of Well	25.00		
Depth to Water (from top of casing)	14.67		
Water Elevation (feet above msl)	13.49		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	5.0		
Actual Volume Purged (gallons)	6.0		
Appearance of Purge Water	Black, cleared after 1.5 gallons purged.		
Free Product Present?	No	Thickness (ft):	Sheen

GROUNDWATER SAMPLES

Number of Samples/Container Size				3 VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
	2	18.58		3442	10	-387.6	
	4	18.11		3264	0.14	-398.3	
	6	18.09		2860	0.05	-417.5	

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

Purge water was black with strong hydrocarbon odor. Purge water cleared after 1.5 gallons of water was purged.
A sheen was observed during well purging.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Vic's Automotive	Date of Sampling:	5/9/2005
Job Number:	9482	Name of Sampler:	Adrian Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK		▼
Elevation of Top of Casing (feet above msl)	29.21		
Depth of Well	25.00		
Depth to Water (from top of casing)	15.03		
Water Elevation (feet above msl)	14.18		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	19.4		
Actual Volume Purged (gallons)	20		
Appearance of Purge Water	Brown, cleared after 1 gallon purged.		
Free Product Present?	No	Thickness (ft):	-

GROUNDWATER SAMPLES

Number of Samples/Container Size				3 VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	4	18.60		330	0.24	-272.3	
	8	18.61		322	0.19	-275.2	
	12	18.65		295	0.15	-315.9	
	16	18.72		275	0.08	-339.8	
	20	18.77		266	0.05	-349.8	

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

Purge water was brown with no noted hydrocarbon odor. Purge water cleared after 1 gallon of water was purged.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Vic's Automotive	Date of Sampling:	5/9/2005
Job Number:	9482	Name of Sampler:	Adrian Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK <input type="button" value="v"/>		
Elevation of Top of Casing (feet above msl)	29.38		
Depth of Well	25.00		
Depth to Water (from top of casing)	16.20		
Water Elevation (feet above msl)	13.18		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	17.2		
Actual Volume Purged (gallons)	18.0		
Appearance of Purge Water	Light-brown, cleared quickly.		
Free Product Present?	No	Thickness (ft):	-

GROUNDWATER SAMPLES

Number of Samples/Container Size				3 VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	3	17.56		385	0.42	-186.6	
	6	17.55		386	0.42	-184.5	
	9	17.57		397	0.44	-175.5	
	12	17.63		380	0.38	-179.2	
	15	17.83		410	0.38	-174.8	
	18	17.82		431	0.41	-171.1	

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

Purge water was light-brown with no noted hydrocarbon odor and cleared quickly.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-5

Project Name:	Vic's Automotive	Date of Sampling:	5/9/2005
Job Number:	9482	Name of Sampler:	Adrian Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	---		
Depth of Well	22.00		
Depth to Water (from top of casing)	14.33		
Water Elevation (feet above msl)	---		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	15.1		
Actual Volume Purged (gallons)	16.0		
Appearance of Purge Water	Greenish, cleared after 2.5 gallons purged.		
Free Product Present?	No	Thickness (ft):	-

GROUNDWATER SAMPLES

Number of Samples/Container Size				3 VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
	4	17.89		887	0.12	-367.6	
	8	17.91		931	0.04	-382.1	
	12	18.12		784	0.05	-384.9	
	16	18.31		637	0.05	-376.7	

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

Purge water was initially greenish with strong hydrocarbon odor.
Purge water cleared after 2.5 gallons of water was purged and turned gray after 11 gallons of water was purged.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-6

Project Name:	Vic's Automotive	Date of Sampling:	5/9/2005
Job Number:	9482	Name of Sampler:	Adrian Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	---		
Depth of Well	22.00		
Depth to Water (from top of casing)	13.61		
Water Elevation (feet above msl)	---		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	16.7		
Actual Volume Purged (gallons)	18.0		
Appearance of Purge Water	Light-gray, cleared after 2 gallons purged.		
Free Product Present?	No	Thickness (ft):	-

GROUNDWATER SAMPLES

Number of Samples/Container Size				3 VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
	3	17.04		284	0.27	-338.4	
	6	17.01		285	0.14	-342.8	
	9	17.03		304	0.08	-352.9	
	12	17.10		288	0.06	-361.8	
	15	17.18		269	0.04	-371.6	
	18	17.22		283	0.04	-372.6	

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

Purge water was initially light-gray with strong hydrocarbon odor.
Purge water cleared after 2 gallons of water was purged.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-7

Project Name:	Vic's Automotive	Date of Sampling:	5/9/2005
Job Number:	9482	Name of Sampler:	Adrian Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	---		
Depth of Well	22.00		
Depth to Water (from top of casing)	14.47		
Depth to Free Product (from top of casing)	14.44		
Water Elevation (feet above msl)	---		
Well Volumes Purged	N/A		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	N/A		
Actual Volume Purged (gallons)	N/A		
Appearance of Purge Water	N/A		
Free Product Present?	Yes	Thickness (ft):	0.03

GROUNDWATER SAMPLES

Number of Samples/Container Size				Not sampled due to presence of free product.			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments

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

Well was neither purged nor sampled due to the presence of free product.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-10

Project Name:	Vic's Automotive	Date of Sampling:	5/9/2005
Job Number:	9482	Name of Sampler:	Adrian Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA			
Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK		▼
Elevation of Top of Casing (feet above msl)	---		
Depth of Well	22.00		
Depth to Water (from top of casing)	13.09		
Water Elevation (feet above msl)	---		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	18.2		
Actual Volume Purged (gallons)	18.0		
Appearance of Purge Water	Milky-gray, cleared after 4.5 gallons purged.		
Free Product Present?	No	Thickness (ft):	-

GROUNDWATER SAMPLES							
Number of Samples/Container Size				3 VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
	3	17.83		428	0.34	-325.2	
	6	17.88		438	0.11	-333.5	
	9	17.91		441	0.07	-341.7	
	12	17.98		423	0.05	-347.7	
	15	18.02		412	0.05	-355.2	
	18	18.09		398	0.04	-365.4	

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

Purge water was initially milky-gray with strong hydrocarbon odor.
Purge water cleared after 2 gallons of water was purged.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-11

Project Name:	Vic's Automotive	Date of Sampling:	5/9/2005
Job Number:	9482	Name of Sampler:	Adrian Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4
Wellhead Condition	OK ▼
Elevation of Top of Casing (feet above msl)	---
Depth of Well	22.00
Depth to Water (from top of casing)	13.89
Water Elevation (feet above msl)	---
Well Volumes Purged	3
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	15.1
Actual Volume Purged (gallons)	16.0
Appearance of Purge Water	Greenish, cleared quickly, gray after 12 gallons purged.
Free Product Present?	No
Thickness (ft):	-

GROUNDWATER SAMPLES

Number of Samples/Container Size		3 VOAs					
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
	4	17.22		402	0.19	-329.5	
	8	17.17		443	0.07	-359.9	
	12	17.29		396	0.04	-373.9	
	16	17.41		432	0.03	-387.4	

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

Purge water was greenish with strong hc odor, and turned gray after 12 gallons of water was purged.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-12

Project Name:	Vic's Automotive	Date of Sampling:	5/9/2005
Job Number:	9482	Name of Sampler:	Adrian Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4
Wellhead Condition	OK
Elevation of Top of Casing (feet above msl)	---
Depth of Well	22.00
Depth to Water (from top of casing)	14.17
Water Elevation (feet above msl)	---
Well Volumes Purged	3
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	15.2
Actual Volume Purged (gallons)	16.0
Appearance of Purge Water	Light-brown, cleared quickly.
Free Product Present?	No
Thickness (ft):	-

GROUNDWATER SAMPLES

Number of Samples/Container Size		3 VOAs					
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	4	17.17		468	0.12	-335.9	
	8	17.85		530	0.05	-370.8	
	12	17.26		559	0.03	-381.7	
	16	17.35		565	0.03	-385.2	

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

Purge water was initially brown with strong hydrocarbon odor, and cleared quickly.



McC Campbell Analytical, Inc.

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #9482; Lum	Date Sampled: 05/09/05
		Date Received: 05/09/05
	Client Contact: Peter McIntyre	Date Reported: 05/13/05
	Client P.O.:	Date Completed: 05/13/05

WorkOrder: 0505121

May 13, 2005

Dear Peter:

Enclosed are:

- 1). the results of 8 analyzed samples from your #9482; Lum project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill 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 please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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Website: www.mcccampbell.com E-mail: main@mcccampbell.com

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #9482; Lum	Date Sampled: 05/09/05
		Date Received: 05/09/05
	Client Contact: Peter McIntyre	Date Extracted: 05/10/05-05/11/05
	Client P.O.:	Date Analyzed: 05/10/05-05/11/05

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0505121

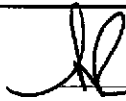
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-2	W	74,000,a	14,000	21,000	4200	2300	3300	100	99
002A	MW-3	W	200,a	ND	ND	3.9	ND	ND	1	111
003A	MW-4	W	840,a	ND	50	180	21	110	1	118
004A	MW-5	W	60,000,a	ND<900	6100	9900	1600	6600	100	102
005A	MW-6	W	170,000,a	ND<4000	11,000	43,000	3100	16,000	200	113
006A	MW-10	W	88,000,a	ND<1500	6900	20,000	2300	9900	200	110
007A	MW-11	W	210,000,a	3500	29,000	40,000	3400	16,000	200	112
008A	MW-12	W	210,000,a	91,000	44,000	28,000	3300	13,000	200	90

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	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 McC Campbell 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.


Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0505121

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 16158			Spiked Sample ID: 0505106-002A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	60	85.1	84.6	0.669	87	86.9	0.114	70 - 130	70 - 130
MTBE	ND	10	89.1	88.1	1.18	84.2	82.4	2.21	70 - 130	70 - 130
Benzene	ND	10	85.3	85.9	0.696	89.3	86.3	3.47	70 - 130	70 - 130
Toluene	ND	10	91.6	91.8	0.258	94.8	91.8	3.26	70 - 130	70 - 130
Ethylbenzene	ND	10	98.7	99.5	0.817	102	100	2.38	70 - 130	70 - 130
Xylenes	ND	30	100	100	0	103	100	3.28	70 - 130	70 - 130
%SS:	94	10	93	94	0.387	96	94	2.13	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 16158 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505121-001A	5/09/05	5/10/05	5/10/05 8:11 AM	0505121-002A	5/09/05	5/10/05	5/10/05 8:40 AM
0505121-003A	5/09/05	5/10/05	5/10/05 9:10 AM	0505121-004A	5/09/05	5/10/05	5/10/05 10:22 AM
0505121-005A	5/09/05	5/10/05	5/10/05 11:11 PM	0505121-006A	5/09/05	5/10/05	5/10/05 11:41 PM
0505121-007A	5/09/05	5/11/05	5/11/05 12:11 AM	0505121-008A	5/09/05	5/11/05	5/11/05 12:40 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).

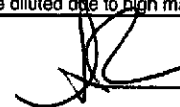
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the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

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or 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.

 QA/QC Officer

McC Campbell Analytical, Inc.

CHAIN-OF-CUSTODY RECORD



110 Second Avenue South, #D7
 Pacheco, CA 94553-5560
 (925) 798-1620

WorkOrder: 0505121

ClientID: AEL

Report to:		TEL: (925) 283-6000	Bill to:		Requested TAT:	5 days
Peter McIntyre		FAX: (925) 283-6121	Diane			
AEI Consultants		ProjectNo: #9482; Lum	All Environmental, Inc.		Date Received:	05/09/2005
2500 Camino Diablo, Ste. #200		PO:	2500 Camino Diablo, Ste. #200		Date Printed:	05/09/2005
Walnut Creek, CA 94597			Walnut Creek, CA 94597			

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)																					
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15							
0505121-001	MW-2	Water	5/9/05	<input type="checkbox"/>	A	A																				
0505121-002	MW-3	Water	5/9/05	<input type="checkbox"/>	A																					
0505121-003	MW-4	Water	5/9/05	<input type="checkbox"/>	A																					
0505121-004	MW-5	Water	5/9/05	<input type="checkbox"/>	A																					
0505121-005	MW-6	Water	5/9/05	<input type="checkbox"/>	A																					
0505121-006	MW-10	Water	5/9/05	<input type="checkbox"/>	A																					
0505121-007	MW-11	Water	5/9/05	<input type="checkbox"/>	A																					
0505121-008	MW-12	Water	5/9/05	<input type="checkbox"/>	A																					

Test Legend:

1	G-MBTEX_W	2	PREFD REPORT	3		4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Melissa Valles

Comments:

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

aeu 0505121

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Yes No

Report To: Peter McIntyre Bill To: same

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597

E-Mail: pmcintyre@aeiconsultants.com

Tele: (925) 944-2899

Fax: (925) 944-2895

Project #: 9482

Project Name: Lum

Project Location: 8th / Alice, Oakland

Sampler Signature: *John M. [Signature]*

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED			
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other
+ MW-2		5/9/05	Am	3	VOAS	X					X	X		X
+ MW-3						X					X	X		X
+ MW-4						X					X	X		X
+ MW-5						X					X	X		X
+ MW-6						X					X	X		X
+ MW-10						X					X	X		X
+ MW-11						X					X	X		X
+ MW-12						X					X	X		X

Analysis Request												Other	Comments		
BTEX & TPH as Gas (602/8020 + 8015)/MTEB															
TPH as Diesel (8015)															
Total Petroleum Oil & Grease (5520 E&F/B&F)															
Total Petroleum Hydrocarbons (418.1)															
EPA 601 / 8010															
BTEX ONLY (EPA 602 / 8020)															
EPA 608 / 8080															
EPA 608 / 8080 PCB's ONLY															
EPA 624 / 8260															
EPA 625 / 8270															
PAH's / PNA's by EPA 625 / 8270 / 8310															
CAM-17 Metals															
LUFT 5 Metals															
Lead (7240/7421/239.2/6010)															
RCI															

Relinquished By: <i>John M. [Signature]</i>	Date: 5/9/05	Time: 4:55	Received By: <i>[Signature]</i>
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/✓
 GOOD CONDITION ✓
 HEAD SPACE ABSENT ✓
 DECHLORINATED IN LAB _____ PRESERVED IN LAB _____

PRESERVATION
 APPROPRIATE CONTAINERS ✓
 VOAS ✓ O&G METALS OTHER