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AEI CONSULTANTS
Environmental & Civil Engineering

2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597
Phone: (925) 283-6000 Fax: (925) 944-2895

June 14, 2004

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

Subject: **Quarterly Monitoring Report –2nd Quarter 2004 (12th Episode)**
245 8th Street
Oakland, CA
AEI Project #4332

Dear Mr. Chan:

Enclosed is the Quarterly Monitoring Report for the most recent episode of sampling performed at the above referenced property.

Please call me at (925) 283-6000 if you have any questions or need any additional information.

Sincerely,

Lawrence Hollins
Project Manager

June 14, 2004

GROUNDWATER MONITORING REPORT
2nd Quarter, 2004

245 8th Street
Oakland, California

Project No. 4332

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, CA 94597
(925) 283-6000

AEI

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Environmental & Civil Engineering

2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597
Phone: (925) 283-6000 Fax: (925) 944-2895

June 14, 2004

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
AEI Project No. 4332

Dear Mr. Lum:

AEI Consultants (AEI) has prepared this report on your behalf 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 2004 (12th) episode of groundwater monitoring and sampling for the four on-site wells conducted on May 10, 2004.

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. Floating 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 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 product recovery pump was installed in MW-1 in June 2001. Currently, an interim source removal plan is under review by the ACHCSA.

Summary of Monitoring Activities

Monitoring of water and product levels and sample collection occurred on May 10, 2004. The well locations are shown in Figure 2. The depth to static groundwater from the top of the well casings was measured prior to sampling with an electric water level indicator. A floating product interface meter was used in MW-1 and MW-2. The three wells with no measurable thickness of floating product (MW-2 through MW-4) were purged using a battery powered submersible pump, and groundwater samples were collected from the wells using clean, disposable plastic bailers.

Temperature, pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), and specific conductivity were measured and the turbidity was visually noted during the purging of the wells. Approximately three well volumes of water were purged from each well prior to sample collection. Once the above parameters had stabilized, and the wells were allowed to recharge to a minimum of 90% of their original water volume, a water sample was collected.

Each groundwater sample was collected into three 40-ml volatile organic analysis (VOA) vials and capped so no head-space or air bubbles were visible within the sample containers. Samples were shipped on ice under proper chain of custody protocol to McCampbell Analytical, Inc. of Pacheco, California (Department of Health Services Certification #1644).

The three groundwater samples collected were analyzed for TPH-g (EPA method 8015C), benzene, toluene, ethylbenzene, and xylenes (BTEX) (EPA method 8021B), and MTBE (EPA method 8021B).

Field Results

Well MW-1 was inaccessible at the time of the monitoring event. For this reason, no samples were collected from MW-1, and the depth to water reading was not used in the calculation of

groundwater flow direction and gradient. No measurable thickness of free product was apparent using an interface meter in well MW-2.

Groundwater levels for the current monitoring episode ranged from 12.49 to 13.44 feet above mean sea level (msl) in the three wells (MW-2 through MW-4). These groundwater elevations were an average of 0.15 feet lower than the previous monitoring episode. This decline in the water table elevation appears to be a seasonal occurrence and coinciding with late spring and summer months. The groundwater flow direction at the time of measurement was south-southeast. The hydraulic gradient of the water table was calculated at 0.008 ft/ft; both the flow direction and gradient are nearly identical to the previous episode.

Groundwater elevation data are summarized in Table 1. The water table contours and the groundwater flow direction are depicted in Figure 2. Refer to Appendix A for the Groundwater Monitoring Well Field Sampling Forms.

Groundwater Quality

Hydrocarbon concentrations in the wells sampled remained highest in MW-2, as they have been for the previous monitoring events. TPH-g, MTBE, benzene, and toluene were detected at 67,000 micrograms per liter (µg/l), 13,000 µg/l, 20,000 µg/l, and 3,000 µg/l respectively, in this well. The levels of TPH-g and toluene in this well were significantly lower than the previous quarter, with TPH-g at levels consistent with the findings in 2001. Well MW-3 contained 280 µg/l TPH-g and 3.4 µg/l of toluene, which is consistent with previous findings. No petroleum hydrocarbons were detected above laboratory reporting limits in MW-4. A summary of groundwater quality data is presented in Table 2. Laboratory results and chain of custody documents are included in Appendix B.

Conclusions

The findings of this episode are consistent with the previous episode, confirm that significant product mass remains at the site. Setup of the recently approved well installation and pilot test is underway. The ACHCSA will be notified of the drilling date, once finalized.

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 either of the undersigned at 925/283-6000.

Sincerely,
AEI Consultants

Lawrence Hollins
Project Manager

Peter McIntyre, R.G. #7702 exp 5/31/06
Senior Project Geologist

Figures

Figure 1	Site Location Map
Figure 2	Site Plan with Water Table Contours
Figure 3	Site Plan with Dissolved Hydrocarbons

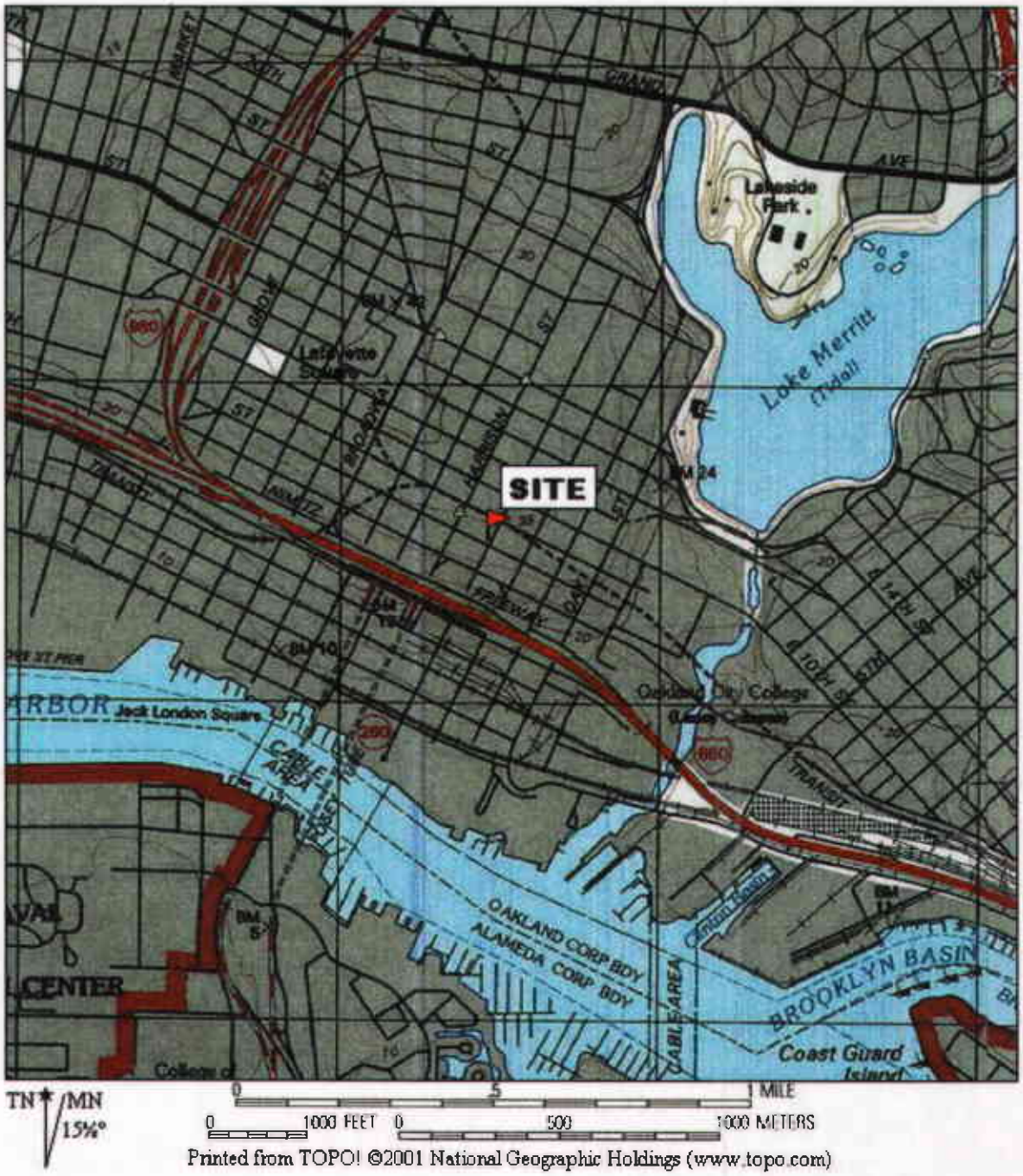
Tables

Table 1	Groundwater Elevation Data
Table 2	Groundwater Sample Analytical Data

Appendix A Well Field Sampling Forms

Appendix B Laboratory Reports With Chain of Custody Documentation

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



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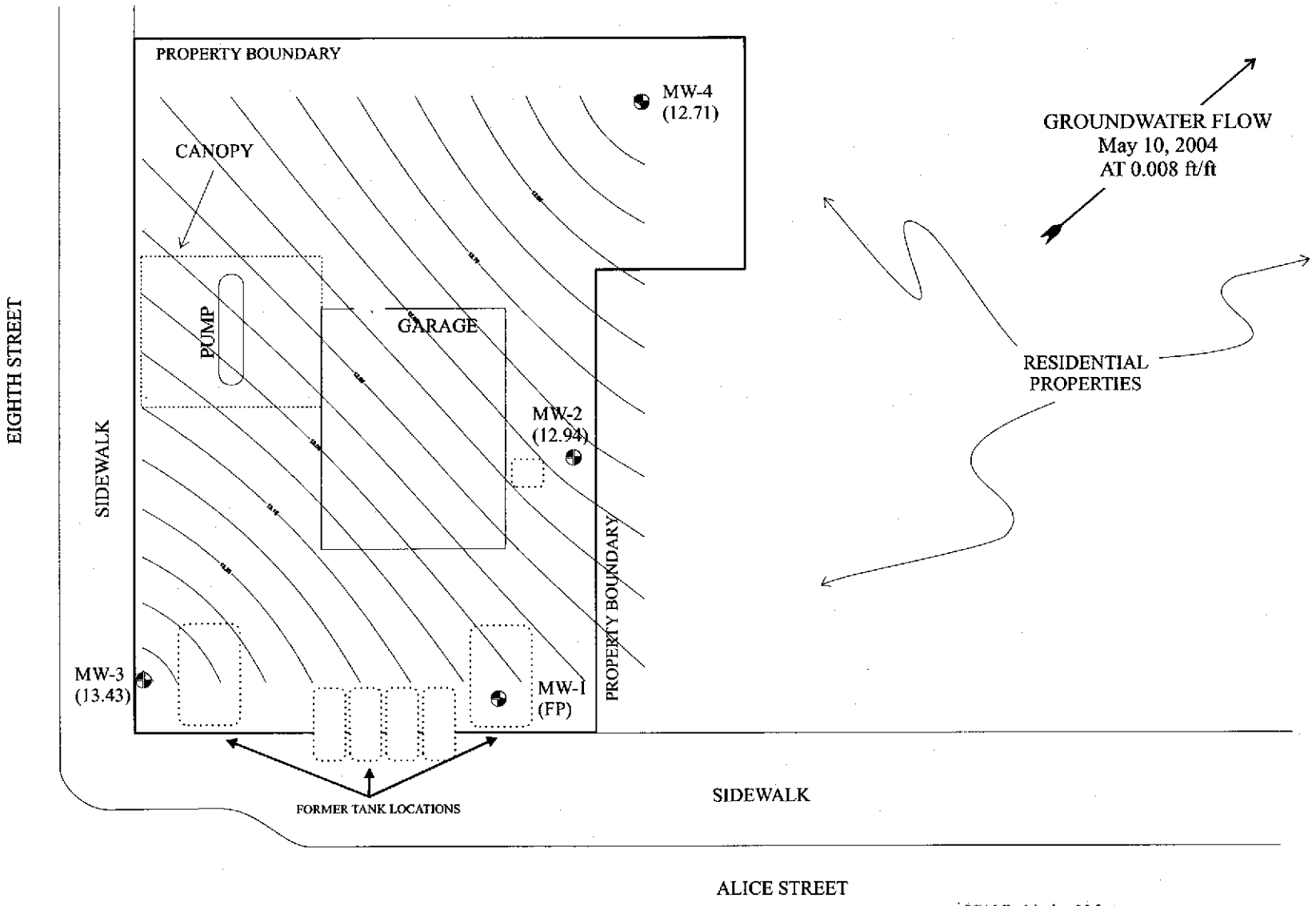
AEI CONSULTANTS 2500 CAMINO DIABLO BLVD, STE 200, WALNUT CREEK	
SITE LOCATION MAP	
245 8th STREET OAKLAND, CALIFORNIA	**FIGURE 1** PROJECT NO. 4332



AEI CONSULTANTS

2500 CAMINO DIABLO BLVD, STE 200, WALNUT CREEK, CA

WATER TABLE CONTOURS

245 8th STREET
OAKLAND, CALIFORNIA

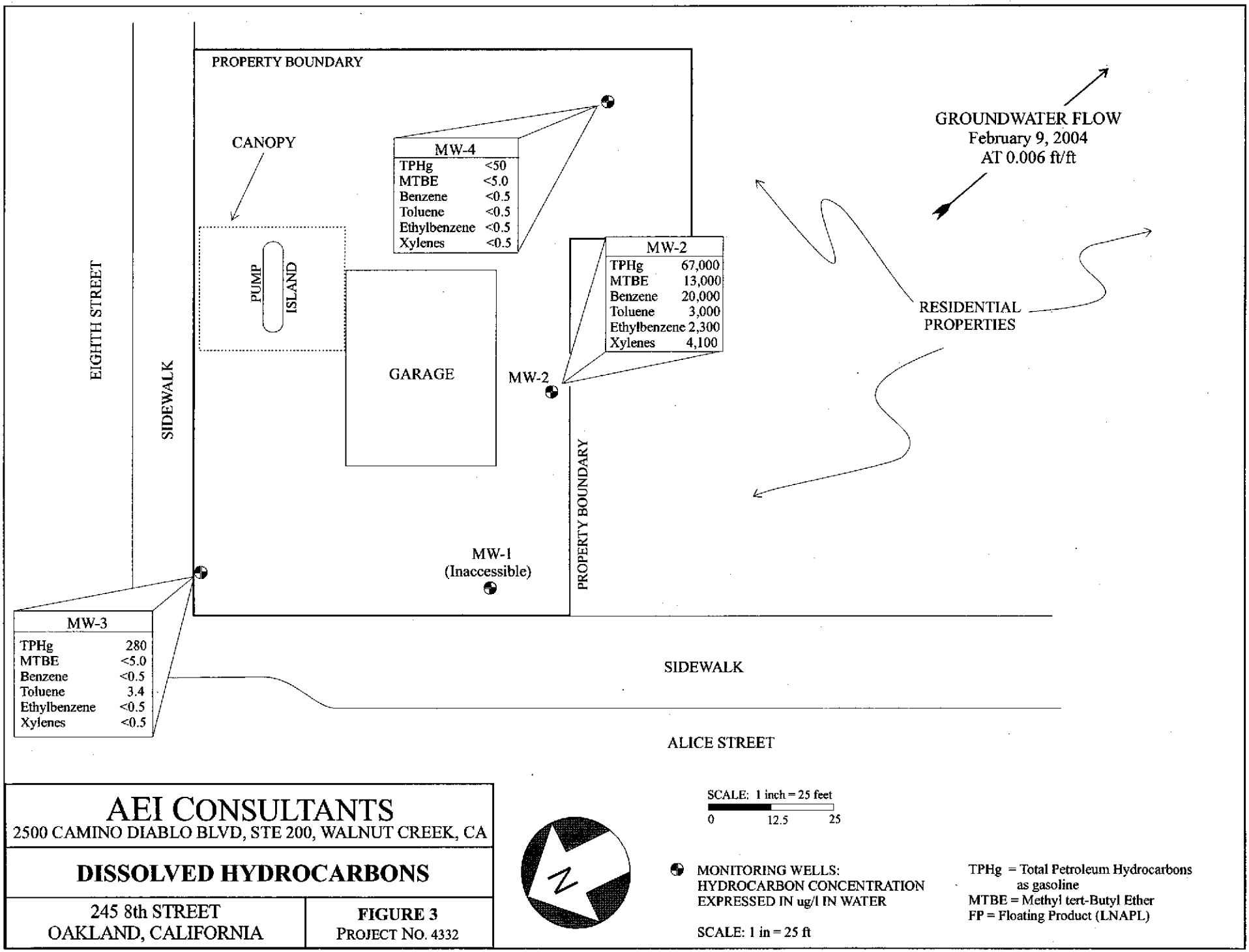
FIGURE 2
PROJECT NO. 4332

N

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

SCALE: 1 in = 25 ft

12.8 WATER TABLE CONTOURS WITH ELEVATIONS ABOVE SEA LEVEL. CONTOUR INTERVAL IS 0.05 FEET
(drawn with Surfer V.7.0)
Well MW-1 not used in calculating groundwater flow direction or gradient



AEI CONSULTANTS

2500 CAMINO DIABLO BLVD, STE 200, WALNUT CREEK, CA

DISSOLVED HYDROCARBONS

245 8th STREET
OAKLAND, CALIFORNIA

FIGURE 3
PROJECT NO. 4332

SCALE: 1 inch = 25 feet
0 12.5 25

MONITORING WELLS:
HYDROCARBON CONCENTRATION
EXPRESSED IN ug/l IN WATER

SCALE: 1 in = 25 ft

TPHg = Total Petroleum Hydrocarbons as gasoline
MTBE = Methyl tert-Butyl Ether
FP = Floating Product (LNAPL)

Table 1
Groundwater Elevation Data

Well ID	Date Collected	Well Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft aamsl)	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**
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**
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**	-	-
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**	-	-

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**	**-0.15**	**SSE (0.008)**

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

* = Measured groundwater level affected by LNAPL and/or pump presence, not used to calculate water table elevation

All well elevations are measured from the top of the casing

- = not applicable

ft amsl = feet above mean sea level

Table 2
Groundwater Sample Analytical Data

Well/Sample ID	Date Collected	Apparent LNAPL thickness (ft)	TPHg µg/L	MTBE µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/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**
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**
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	Sheen	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**
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	Sheen	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**

µg/L micrograms per liter

TPHg total petroleum hydrocarbons as gasoline

MTBE methyl tertiary butyl ether

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

ns/fp = not sampled / free product

ND = not detected

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

LNAPL = Light Non Aqueous Phase Liquid

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Vic's Automotive	Date of Sampling:	5/10/2004
Job Number:	4332	Name of Sampler:	AN
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)	15.34		
Depth to Free Product (from top of casing)	14.43		
Water Elevation (feet above msl)	12.39		
Well Volumes Purged	0		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	**0.0**		
Actual Volume Purged (gallons)	0.0		
Appearance of Purge Water	na		
Free Product Present?	Yes	Thickness (ft):	0.91

GROUNDWATER SAMPLES

Number of Samples/Container Size: Not sampled

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.)

MW-1 was inaccessible at the time of the monitoring event.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Vic's Automotive	Date of Sampling:	5/10/2004
Job Number:	4332	Name of Sampler:	AN
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	28.16		
Depth of Well	25.00		
Depth to Water (from top of casing)	15.34		
Water Elevation (feet above msl)	12.82		
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)	**4.6**		
Actual Volume Purged (gallons)	6.0		
Appearance of Purge Water			
Free Product Present?	Yes	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	7.03	1062	0.53	-233.3	
	4	18.03	6.99	1013	0.53	-232.8	
	6	18.07	6.97	951	0.53	-231.9	
	8	18.08	6.94	911	0.53	230.5	

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

Dark and strong hydrocarbon odor. Clear at 3.5 gallons. Sheen observed on samples.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Vic's Automotive	Date of Sampling:	5/10/2004
Job Number:	4332	Name of Sampler:	AN
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)	15.77		
Water Elevation (feet above msl)	13.44		
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)	**17.9**		
Actual Volume Purged (gallons)	20		
Appearance of Purge Water			
Free Product Present?	no	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: Not sampled

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	4	18.82	6.66	289	0.51	-54.3	
	8	18.81	6.62	278	0.51	-95.5	
	12	18.82	6.63	264	0.51	-127.9	
	16	18.86	6.64	253	0.51	-153.8	
	20	18.91	6.71	240	0.51	-172.6	

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

Brown, no odor, clear by 2 gallons

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Vic's Automotive	Date of Sampling:	5/10/2004
Job Number:	4332	Name of Sampler:	AN
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)	29.38		
Depth of Well	25.00		
Depth to Water (from top of casing)	16.89		
Water Elevation (feet above msl)	12.49		
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)	**15.8**		
Actual Volume Purged (gallons)	16.0		
Appearance of Purge Water			
Free Product Present?		Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: Not sampled

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	4	17.83	6.54	434	0.49	-122.3	
	8	17.77	6.45	434	0.54	64.9	
	12	17.75	6.41	432	0.54	14.6	
	16	17.88	6.46	454	0.54	-4.7	
	20	17.92	6.46	477	0.54	-5.7	

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

Initially brown color. No hydrocarbon odor. Clears quickly.

McCampbell 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

All Environmental, Inc.	Client Project ID: #4332; Vic's Automotive	Date Sampled: 05/10/04
2500 Camino Diablo, Ste. #200		Date Received: 05/10/04
Walnut Creek, CA 94597	Client Contact: Peter McIntyre	Date Extracted: 05/11/04
	Client P.O.:	Date Analyzed: 05/11/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0405122

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-2	W	67,000,a	13,000	20,000	3000	2300	4100	100	106
002A	MW-3	W	280,m	ND	ND	3.4	ND	ND	1	103
003A	MW-4	W	ND	ND	ND	ND	ND	ND	1	96.1

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 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.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0405122

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 11471 Spiked Sample ID: 0405114-001A

	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	ND	60	102	103	0.797	103	104	1.05	70	130
MTBE	ND	10	107	112	4.25	99	99	0	70	130
Benzene	ND	10	100	105	5.00	105	107	1.72	70	130
Toluene	ND	10	103	109	5.41	106	107	1.49	70	130
Ethylbenzene	ND	10	111	118	5.79	116	116	0	70	130
Xylenes	ND	30	100	107	6.45	100	107	6.45	70	130
%SS:	99.6	10	103	105	2.40	102	104	2.17	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

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with 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.

DHS Certification No. 1644

QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0405122 **ClientID: AEL**

Report to:
Peter McIntyre
All Environmental, Inc.
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597

TEL: (925) 283-6000
FAX: (925) 283-6121
ProjectNo: #4332; Vic's Automotive
PO:

Bill to:
Lesliegh Alderman
All Environmental, Inc.
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597

Requested TAT: 5 days
Date Received: 5/10/04
Date Printed: 5/10/04

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
0405122-001	MW-2	Water	5/10/04	☐	A														
0405122-002	MW-3	Water	5/10/04	☐	A														
0405122-003	MW-4	Water	5/10/04	☐	A														

Test Legend:

1 G-MBTEX_W	2	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.