



March 28, 2005

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

Received by Barney Chan
MAR 30 2005
American Consulting Engineers Council

Subject: Monitoring/Extraction Well Installation and Quarterly Monitoring Report
245 8th Street
Oakland, California
AEI Project No. 9482

Dear Mr. Chan:

Enclosed is a copy of the above referenced report. We've had some problems clearing all the hurdles required to drill in the street. If we don't get them sorted out shortly, we'll go ahead with the planned High Vacuum Dual Phase Pilot.

Both Peter and I will be out the balance of this week. Please call me at (925) 944-2899, extension 122 if you have any questions.

Sincerely,
AEI Consultants

Robert F. Flory, PG
Senior Geologist

March 25, 2005

Alameda County
MAR 30 2005
Environmental Health

**MONITORING/EXTRACTION WELL
INSTALLATION AND QUARTERLY
MONITORING REPORT**

245 8th Street
Oakland, California 94612

Project No. 9482

Prepared For

Vic's Automotive
245 8th Street
Oakland, California 94612

Prepared By

AEI Consultants
2500 Camino Diablo, Suite 100
Walnut Creek, CA 94597
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AEI

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Alameda County
MAR 30 2005
Environmental Health

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1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this report on behalf of Vic's Automotive and documents the installation of six (6) groundwater monitoring/extraction wells at the property located at 245 8th Street in Oakland, California (Figure 1: Site Location Map). The investigation was conducted to further characterize the extent and the magnitude of the dissolved hydrocarbon and MTBE plume in the groundwater beneath the site and to facilitate the interim source removal.

2.0 SITE DESCRIPTION AND BACKGROUND

The property hereafter referred to, as the 'subject property' or 'site' is located on the southern corner of 8th Street and Alice Street in a mixed commercial and residential area of the City of Oakland. Vic's Automotive, an auto repair and gasoline retail business currently occupies the site. The property is approximately 9,400 square feet in area and is bounded by residential properties to the south and east and by 8th Street and Alice Street to the north and west, respectively. One structure currently exists centrally on the site, a single story 3,000 square feet building utilized for auto repair and office space.

Between June 1993 and Aug 1994, AEI removed seven underground storage tanks from the property. The tanks consisted of four 1000-gallon and two 6000-gallon gasoline underground storage tanks (UST) as well as one 250-gallon waste oil UST. Impacted soil was removed from beneath the former tank area. Groundwater was encountered beneath the former 6000-gallon tanks. Approximately 1760 cubic yards of hydrocarbon-impacted soil were transported to a landfill. Light non-aqueous phase liquid (LNAPL) gasoline product was observed on the water table beneath the southern tank. The excavation was backfilled with clean material. A new tank system was installed just west of the dispenser island. The locations of the former and current USTs are shown on the Site Map, Figure 2

Two groundwater-monitoring wells (MW-1 and MW-2) were installed in July 1995. The first groundwater monitoring events indicated total petroleum hydrocarbons as gasoline (TPH-g) and benzene with concentrations as high as 210,000 micrograms per liter ($\mu\text{g/L}$) and 720 $\mu\text{g/L}$, respectively in MW-2. Floating product (LNAPL) was present in MW-1, which had an apparent thickness ranging from 1.2 to 4.39 feet between 1995 and March 1996. The locations of these and subsequent monitoring wells are shown on Figure 2.

Three soil borings (SB-1 through SB-3) were advanced in August 1996. The locations of these and subsequent soil borings are shown on Figure 2. Groundwater samples collected from each of the borings contained TPH-g ranging from 120,000 $\mu\text{g/L}$ to 140,000 $\mu\text{g/L}$. Benzene ranged from 12,000 $\mu\text{g/L}$ to 19,000 $\mu\text{g/L}$. Methyl tert butyl ether (MTBE) was present in all three samples in concentrations as high as 27,000 $\mu\text{g/L}$. Although free product was not observed in the field, qualitative laboratory observations indicated non-miscible sheen. Manual bailing and pumping of LNAPL from MW-1 and MW-2 occurred intermittently through 1998.

Two additional groundwater-monitoring wells (MW-3 and MW-4) were installed in May 2001. A free product recovery pump was installed in MW-1 in June 2001. Approximately 265 gallons of LNAPL has been recovered.

In April 2003, fourteen soil borings were advanced (SB-4 through SB-17) with direct push Geoprobe® drill rig or limited access rig. The borings ranged in depth from 18 to 20 feet below ground surface. Saturated soils were observed in each boring at approximately 16 to 18 feet bgs. Petroleum hydrocarbons were detected in soil samples from three borings (SB-4, SB-7 and SB-11). Groundwater samples were collected from SB-4 through SB-15. SB-16 and SB-17 were analyzed for soil vapor only.

The highest soil contaminant concentrations were in SB-7, with TPH-g and benzene concentrations at 4,900 milligrams per kilogram (mg/kg) and 65 mg/kg, respectively at 18 feet bgs. SB-11 had TPH-g and benzene concentrations at 2700 mg/kg and 29 mg/kg, respectively. Groundwater from SB-4 and SB-7 contained the highest TPH-g with concentrations of 310,000 µg/L and 240,000 µg/L respectively. Benzene, toluene, ethyl benzene and xylenes (BTEX) analytes were found to be highest in SB-4 with concentrations of 45,000 µg/L, 65,000 µg/L, 4500 µg/L and 23,000 µg/L, respectively. MTBE was in SB-7 at a concentration of 52,000 µg/L and SB-4 at 14,000 µg/L.

3.0 ENVIRONMENTAL SETTING

3.1 Geology

The site is located at 27 to 29 feet above mean sea level (amsl). The site is flat; however, the topography of the area slopes gently to the southwest. According to the logs of soil borings advanced at the site, the native soils generally consist of fine to medium grained sands with clay present to at least 28 feet bgs.

3.2 Hydrology

Groundwater levels for the February 3, 2005 monitoring event ranged from 13.29 to 14.40 feet above mean sea level (msl) in the three wells (MW-2 through MW-4). These groundwater elevations were an average of 2.11 feet higher than the previous monitoring event. The increase in water table elevation appears to be a seasonal occurrence related to the recent period of heavy rainfall. The groundwater flow direction at the time of measurement was west-northwest. This is a significant change from the usual gradient direction of south-southeast and is believed to be a seasonal fluctuation related to the heavy rainfall during the last quarter. The hydraulic gradient of the water table was 0.001 ft/ft, which is similar to the previous episode. Historical groundwater elevations and gradients are summarized on Table 1. The current groundwater gradient is shown on Figure 7.

4.0 PERMITS

Prior to the start of drilling activities, well construction permits were submitted and approved on January 10, 2005 by James Yoo of the Alameda County Public Works Agency, Water Resources Section (ACPWA-WRS). Underground Service alert was notified more than 48 hour prior to the initiation of drilling operations. Copies of the drilling permits are included in Appendix A. USA-North issued alert numbers 004935 and 004947 for activities on 245 8th Street and 708 Alice Street, respectively.

5.0 WELL INSTALLATION

5.1 Soil Borings

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

The rationale for the locations of the wells installed to date is detailed below:

WELL	CASING SIZE	GENERAL LOCATION	PROJECTED USE	RATIONALE FOR BORING LOCATION
MW-5	4"	Between MW-4 and MW-1, adjacent to SB-1	GW/Soil Remediation Well	Highest soil contamination
MW-6	4"	East corner of property, between MW-1 and SB-4	GW/Soil Remediation Well	Area of LNAPL
MW-7	4"	South edge of property near SB-7	GW/Soil Remediation Well	High soil contamination and LNAPL
MW-10	4"	Down gradient, off site, near SB11	GW/Soil Remediation Well	High soil contamination and LNAPL
MW-11	4"	Down gradient, off site, near SB11	GW/Soil Remediation Well	Area of LNAPL
MW-12	4"	Down gradient, off site, near SB11	GW/Soil Remediation Well	Area of LNAPL

The wells were drilled and installed by HEW drilling, East Palo Alto, CA using a rotary drilling rig (CME-75), using nominal 10 1/2 inch outside diameter hollow stem augers.

Soil samples were collected at approximately 5' intervals, or as needed, with a California modified split spoon sampler driven ahead of the auger bit. The samplers held three 2-inch or 2.5- inch diameter brass sleeves. The larger diameter sampler was used in selected wells to collect samples for geotechnical analyses such as sieve or conductivity analyses.

The borings were logged using the unified soil classification system (USCS). Please refer to Appendix B for detailed logs of the borings, including depth of samples collected. The soil samples retained for possible analysis were sealed within brass liners using Teflon® tape and plastic end caps. Samples were labeled with at minimum; project number, sample number (including depth), time, date and samplers initials. The samples were placed in individual zipper locking plastic bags and stored on water ice pending transportation under appropriate chain-of-custody protocols to McCampell Analytical Inc. (DOHS Certification Number 1644) in Pacheco, CA.

5.2 Monitoring/Extraction Well Construction

The wells were constructed with 4-inch inside diameter (ID) Schedule 40 PVC casing with factory slotted 0.010 casing from 12 feet bgs to 22 feet bgs. Sand pack was installed in the annulus of each well from total depth to a depth of 1.0 foot above the screened interval (11-feet to 22-feet). A 1.0 foot thick layer of bentonite chip was placed above the sand, hydrated with water. After allowing the bentonite to hydrate, the remainder of the boring was filled to approximately 0.75 feet below grade with neat cement grout. A 12-inch diameter, flush mounted, traffic rated well box was installed over the casing with an expanding, locking inner cap in the casing top. Refer to the boring logs (Appendix B) for an illustration of well construction details.

6.0 WELL DEVELOPMENT AND SAMPLING

The wells were developed by using a surge block and bailer to clear the sand pack and screen of any fines. Then, a minimum of 10 casing volumes of water was pumped from each well using a submersible pump.

Groundwater samples were collected from the newly installed wells along with the previously installed wells on February 3, 2005 as part of the regularly scheduled quarterly monitoring event. Prior to sampling, the well caps were removed from each well and the water level in each well was allowed to equilibrate with the atmosphere for at least 15 minutes. The depth to groundwater was then measured using a electronic air/product/water interface probe. Following depth to water measurements, at least three casing volumes of water were purged from each well. During purging, the water parameters of temperature, pH, conductivity and oxygen reduction potential were measured and recorded on field sampling forms. Copies of Groundwater Well Sampling Field Forms are attached in Appendix C. Groundwater elevation data is summarized in Table 1.

Following recovery of water levels in the well to within 90% of the initial depth, water samples were collected from the monitoring wells with a clean, disposable bailer. Water was collected in 40 ml VOA vials. The VOAs were capped so that no headspace or air bubbles were visible within the sample containers. The samples were labeled and placed in a cooler on water ice and transported under appropriate chain of custody protocol for analysis to McCampell Analytical Inc. (DOHS Certification Number 1644) of Pacheco, California.

WASTE STORAGE AND DISPOSAL

All soil generated during drilling and installation of the six wells was drummed in open top US department of Transportation (DOT) approved steel drums pending disposal at an appropriate facility. All drums were labeled with the site name; generation date, contents and AEI contact number. Rinsate generated during the drilling and well installation activities were also stored on-site in appropriately labeled 55-gallon drums disposal at an appropriate facility.

7.0 SAMPLE ANALYTICAL RESULTS

7.1 Soil Samples

At least one soil sample was selected for analysis from each well. The selected samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, Xylenes (BTEX) and Methyl tert-butyl Ether (MTBE) by method SW 8021B/8015Cm.

TPH-g was detected in all soil samples at concentrations ranging from 13 mg/Kg (MW-12 20.5') to 3,200 mg/Kg (MW-11 15.5'). Maximum BTEX concentrations were reported in soil sample MW-11 15.5' at 35 mg/Kg, 320 mg/Kg, 85 mg/Kg and 430 mg/Kg, respectively. MTBE was reported at concentrations ranging from ND<0.25 (MW-6 20') to 8.5 mg/kg (MW-11 15.5'). The results of soil chemical analyses from the well borings are summarized in Table 2.

7.2 Geo-technical Analyses

Samples MW7-15.5 and MW7-21.0 were forwarded by McCampbell labs to Cooper Testing Laboratory (Cooper) in Santa Clara, CA particle size distribution by sieve analysis, hydrometer, and Hydraulic Conductivity by ASTM D 5084 and specific gravity by pycnometer. Samples MW-11 15.5' and MW-11 20.5 were forwarded to Cooper for particle size distribution by sieve analysis. The results of the geo-technical testing are summarized in the table below.

Summary Of Geo-technical Analyses

Sample	Gravel %	Coarse Sand %	Medium Sand %	Fine Sand %	Silt %	Clay %	Average Permeability cm/sec	Water Saturation %	Specific Gravity
MW7-15.5	0.2	0.0	1.5	81.8	8.1	8.4	1.E-06	88.8	2.74
MW7-21.0	0.0	0.0	1.9	88.0	4.2	5.9	5.E-06	99.9	2.73
MW-11 15.5'	0.1	0.0	2.3	73.8	23.8		----	----	----
MW-11 20.5'	0.0	0.0	2.8	86.9	10.2		----	----	----

The sediments encountered from the surface to total depth are remarkably similar, differing only in color and a slight decrease in silt and clay content with depth. The decrease in silt and clay content is paralleled by a slight increase in hydraulic conductivity and slight decrease in specific gravity.

7.3 Groundwater Samples

The results of analysis of groundwater from existing wells MW-1 through MW-4 were consistent with previous quarterly monitoring events. LNAPL was present in MW-1, high concentrations in MW-2 and low concentrations of hydrocarbons in MW-3 and MW-4. The results of analyses from the new wells are consistent with the data from previous soil boring. High concentrations indicating the presence of LNAPL were reported in wells MW-6, MW-7, MW-11 and MW-12. TPH-g was reported at concentrations of 78,000 µg/L and 36,000 µg/L in wells MW-5 and MW-10 respectively. MTBE was reported at concentrations ranging from ND<500 (MW-10) to 100,000 µg/L (MW-12).

The groundwater sample analytical data are summarized in Tables 3, Hydrocarbon Analytical Data and Table 4, Water Chemistry Data and on Figure 4 through Figure 6. The laboratory results and chain of custody documentation are included in Appendix C.

8.0 SITE WELL SURVEY

Upon completion of monitoring/extraction well MW-8 and monitoring well MW-9 all wells on site will be survey to GeoTracker standards.

9.0 SUMMARY

Six (6) new 4-inch diameter wells have been installed at the site. AEI is currently working to obtain encroachment permits for one additional 4-inch monitoring/extraction well (MW-8) in Alice Street and one 2-inch diameter monitoring well in Seventh Avenue.

All wells on site were monitored on February 3, 2005 and all wells without measurable free product were sampled for TPH-g, BTEX and MTBE. No significant changes in hydrocarbon levels were observed. Groundwater samples from four wells were analyzed for general water chemistry to gather baseline data for evaluation of bio-degradation as an option following LNAPL removal. The high vacuum dual-phase extraction test will be undertaken following installation of wells MW-8 and MW-9. Upon installation of these wells and completion of the pilot test a report will be prepared which will summarize the results of all onsite activities up to that point and will include recommendations for additional remedial action.

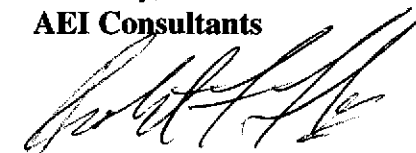
11.0 REPORT LIMITATIONS AND SIGNATURES

This report presents a summary of work completed by AEI, 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.

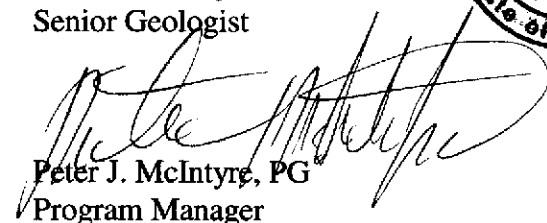
These services were performed in accordance with generally accepted practices in the environmental engineering and construction field that existed at the time and location of the work.

Sincerely,

AEI Consultants



Robert F. Flory, PG
Senior Geologist



Peter J. McIntyre, PG
Program Manager

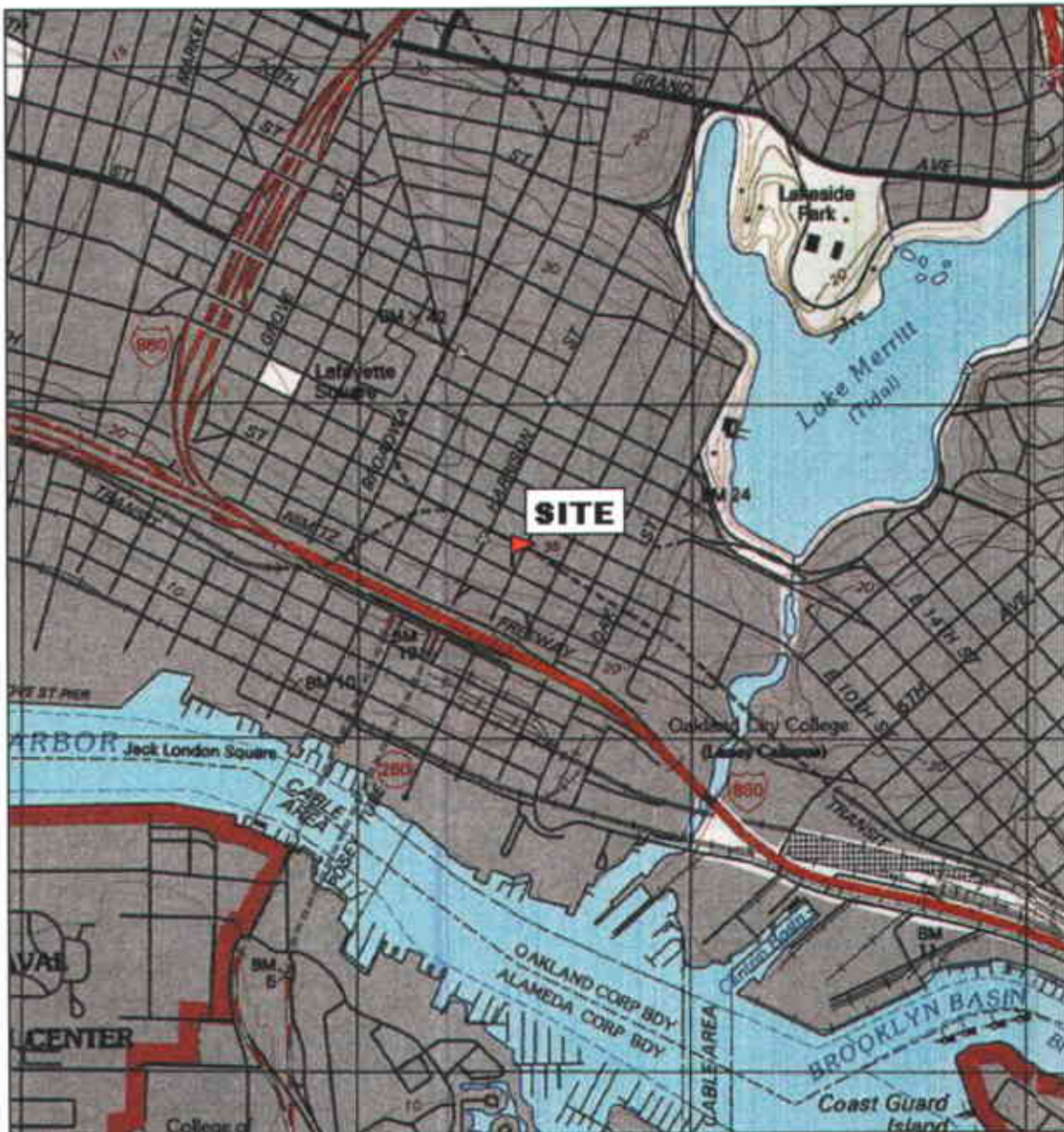
11.0 REFERENCES

1. *Monitoring Well and Pump Installation Report*, July 31, 2001, prepared by AEI Consultants.
2. *Interim Sources Removal Workplan*, March 25, 2005, prepared by AEI Consultants.
3. *Groundwater Monitoring Report, 4th Quarter, 2004*, December 17, 2004

Distribution:

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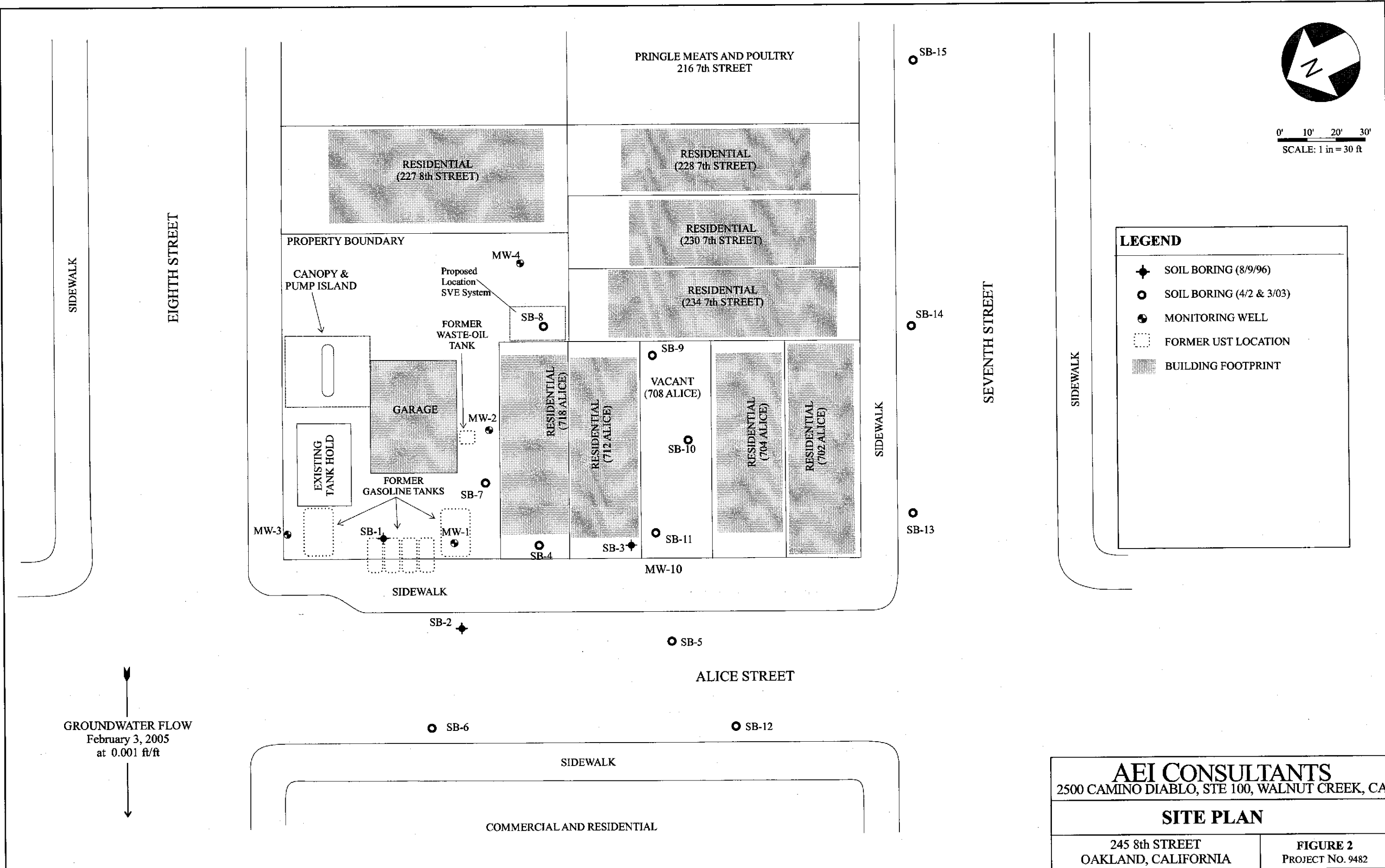
AEI CONSULTANTS 2500 CAMINO DIABLO BLVD, STE 200, WALNUT CREEK	
SITE LOCATION MAP	
245 8 th STREET OAKLAND, CALIFORNIA	FIGURE 1 PROJECT NO. 5404



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

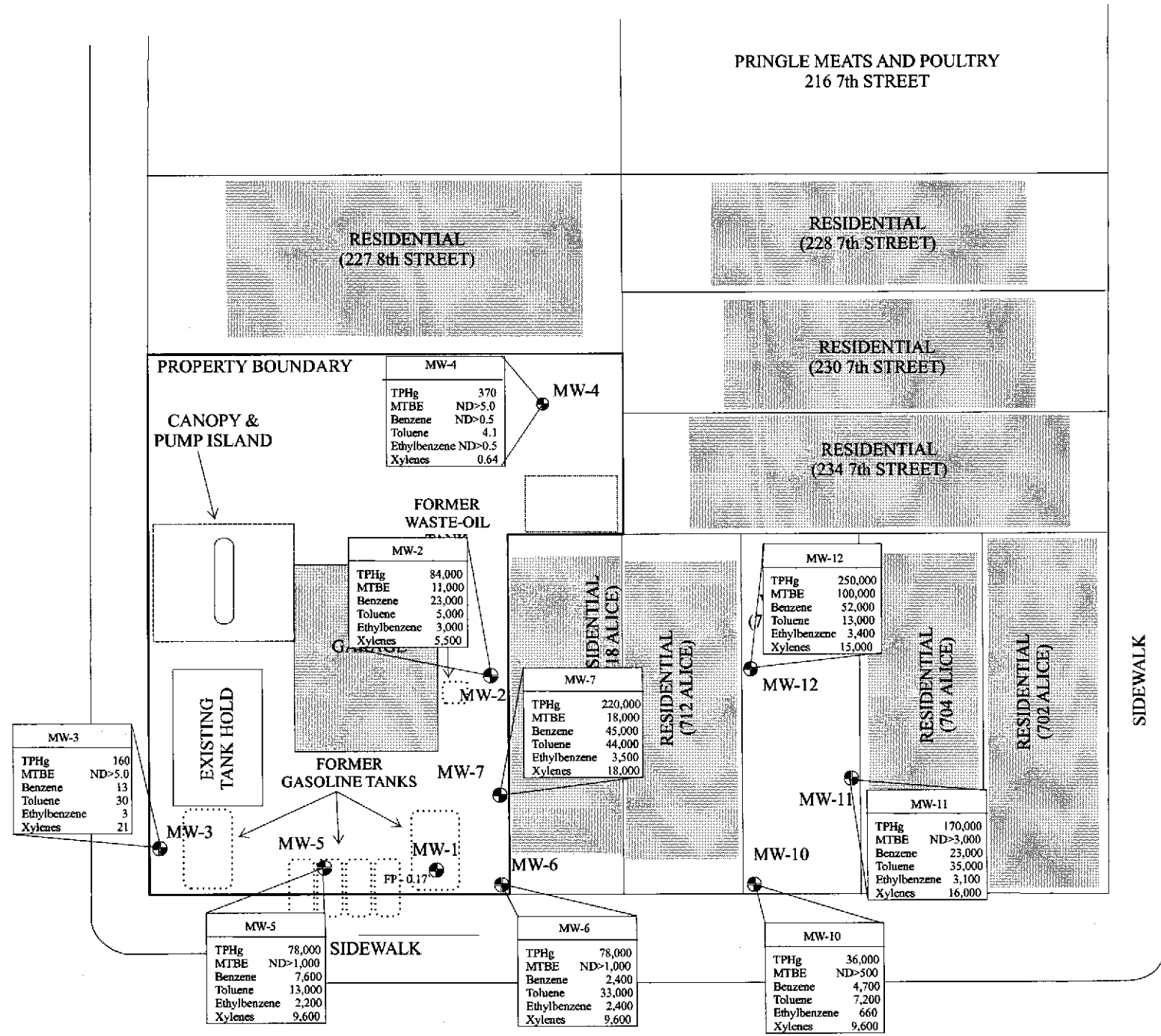


0' 10' 20' 30'
SCALE: 1 in = 30 ft

LEGEND

- MONITORING WELL
- FORMER UST LOCATION
- BUILDING FOOTPRINT

MW-10		Analytical results ug/L
TPHg	36,000	
MTBE	ND>500	
Benzene	4,700	
Toluene	7,200	
Ethylbenzene	660	
Xylenes	9,600	



GROUNDWATER FLOW
February 3, 2005
at 0.001 ft/ft

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

Hydrocarbon Concentrations 2/3/05

245 8th STREET
OAKLAND, CALIFORNIA

FIGURE 3
PROJECT NO. 9482



0' 10' 20' 30'

SCALE: 1 in = 30 ft

LEGEND

- MONITORING WELL
- FORMER UST LOCATION
- BUILDING FOOTPRINT

MW-12
250,000
TPH-g analytical
results in ug/L

PRINGLE MEATS AND POULTRY
216 7th STREET

RESIDENTIAL
(227 8th STREET)

RESIDENTIAL
(228 7th STREET)

PROPERTY BOUNDARY

CANOPY &
PUMP ISLAND

FORMER
WASTE-OIL
TANK

GARAGE

FORMER
GASOLINE TANKS

EXISTING
TANK HOLD

MW-3
160

MW-5
78,000

MW-1
FP-0.17

MW-7
220,00

MW-6
130,000

MW-2
84,000

MW-4
370

MW-10
36,000

MW-11
170,000

MW-12
250,000

SB-15
ND<50

SB-14
ND<50

SB-13
190

ND<50

100,000

200,000

200,000

100,000

ND<50

EIGHTH STREET

SEVENTH STREET

ALICE STREET

GROUNDWATER FLOW
February 3, 2005
at 0.001 ft/ft

SIDEWALK

COMMERCIAL AND RESIDENTIAL

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

TPH-g ISOPLETH MAP

245 8th STREET
OAKLAND, CALIFORNIA

FIGURE 4
PROJECT NO. 9482

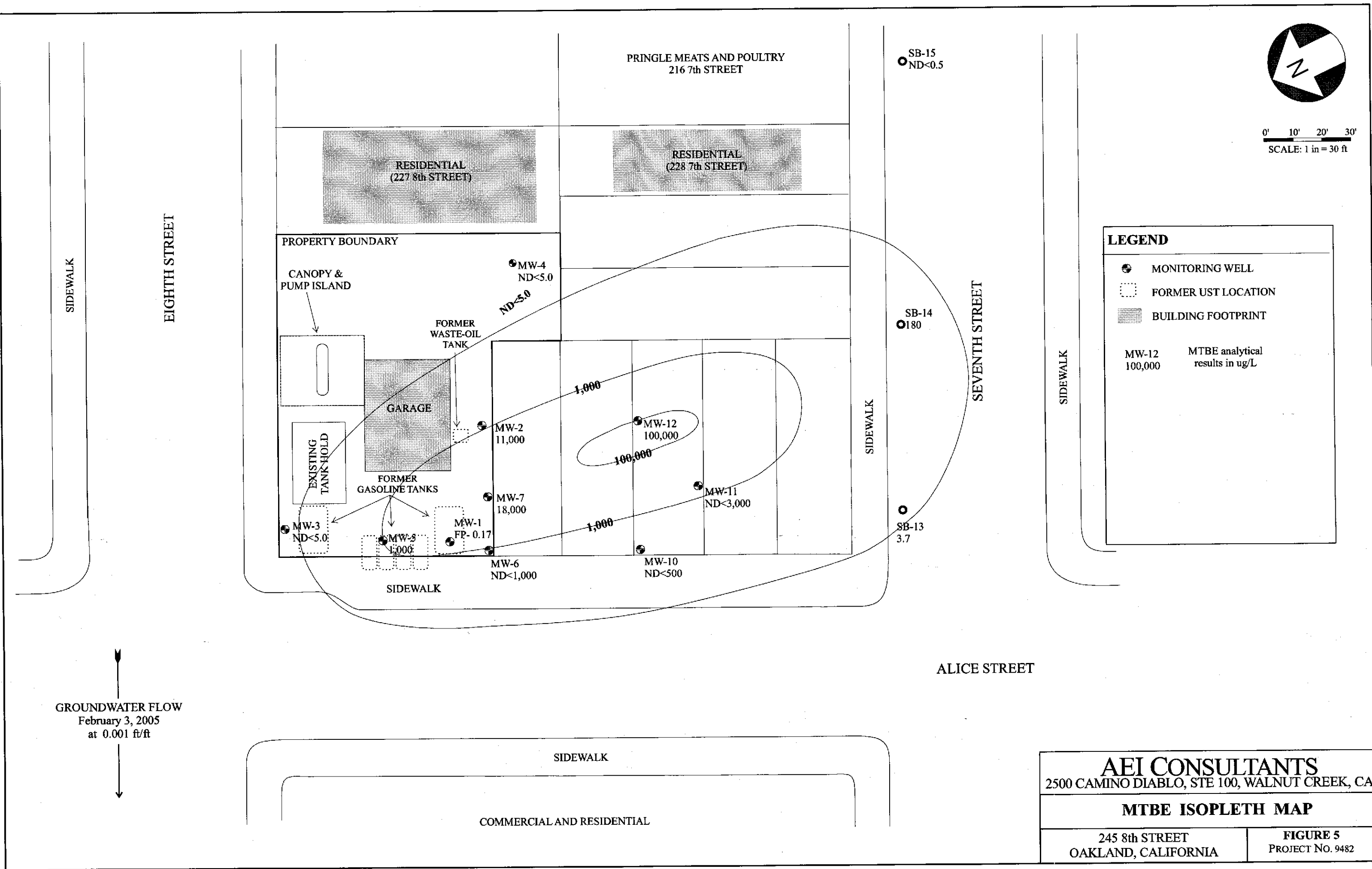


0' 10' 20' 30'
SCALE: 1 in = 30 ft

LEGEND

- MONITORING WELL
- FORMER UST LOCATION
- BUILDING FOOTPRINT

MW-12
100,000 MTBE analytical results in ug/L



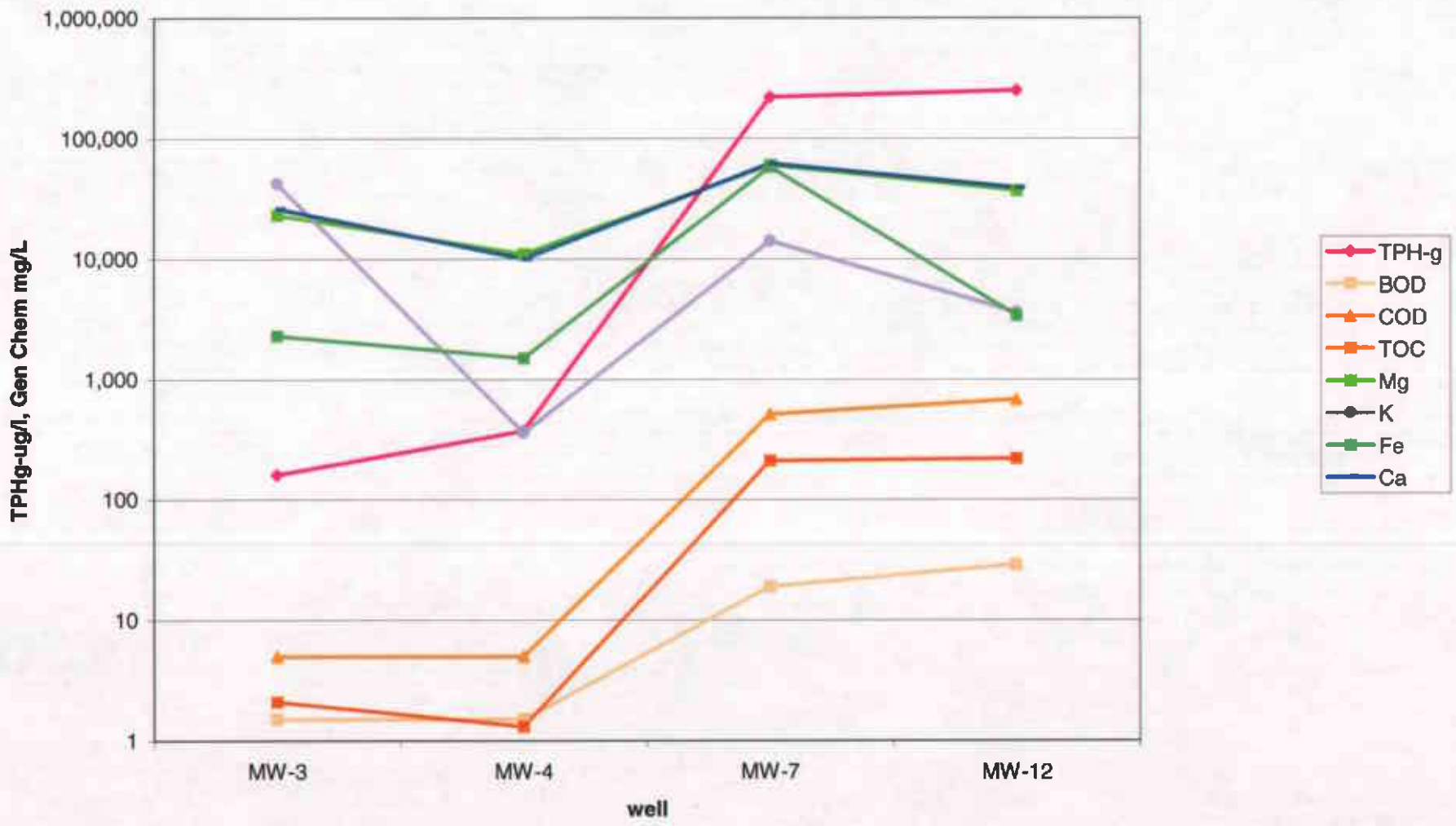
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MTBE ISOPLETH MAP

245 8th STREET
OAKLAND, CALIFORNIA

FIGURE 5
PROJECT NO. 9482

FIGURE 6 THP-g VS General Cemistry





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

LEGEND

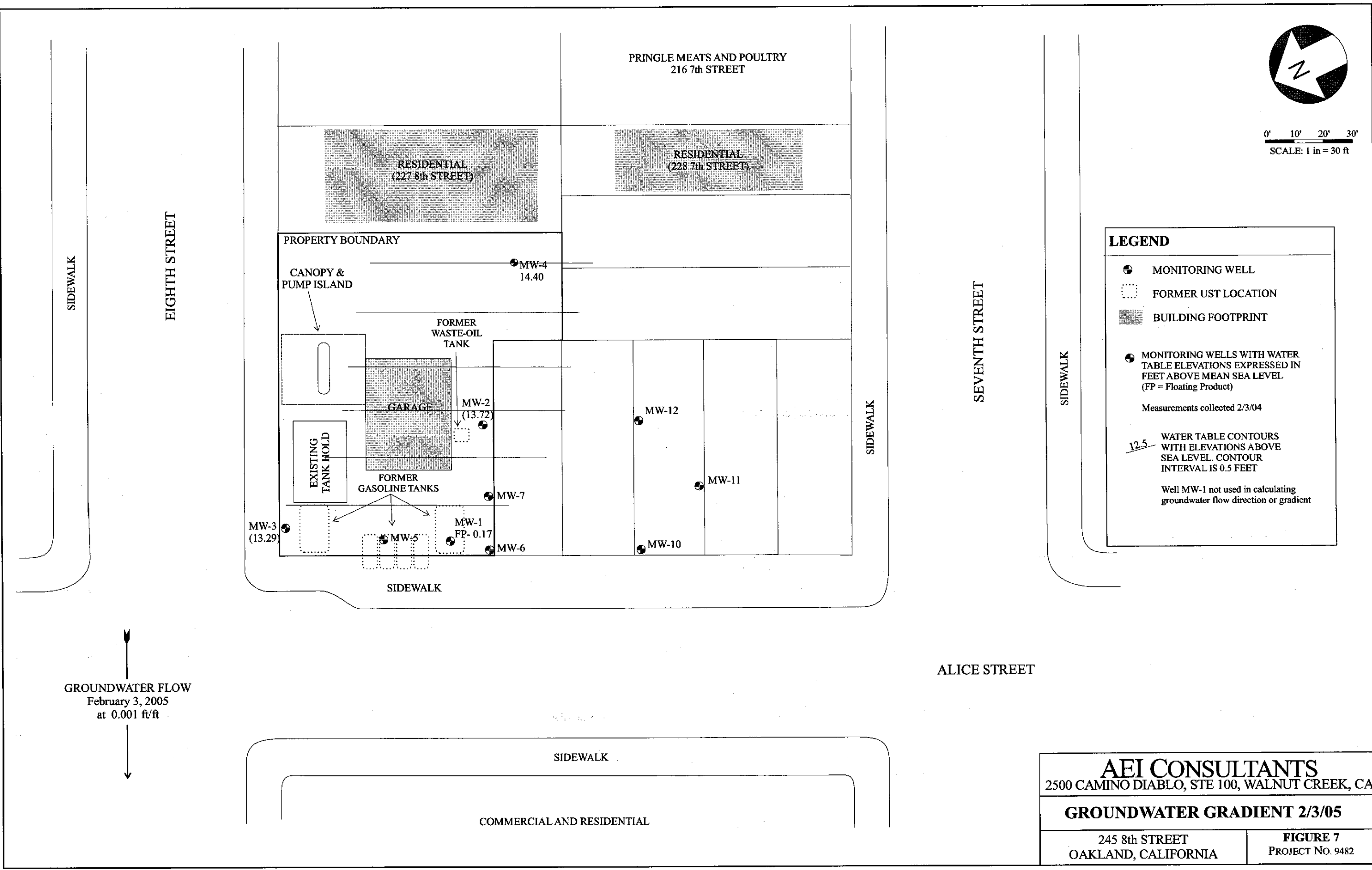
- MONITORING WELL
- FORMER UST LOCATION
- BUILDING FOOTPRINT

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

Measurements collected 2/3/04

12.5 WATER TABLE CONTOURS WITH ELEVATIONS ABOVE SEA LEVEL. CONTOUR INTERVAL IS 0.5 FEET

Well MW-1 not used in calculating groundwater flow direction or gradient



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2500 CAMINO DIABLO, STE 100, WALNUT CREEK, CA

GROUNDWATER GRADIENT 2/3/05

245 8th STREET OAKLAND, CALIFORNIA	FIGURE 7 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)	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	11.78	13.58	0.17
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	
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	-	-

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)	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	-	-
MW-5	2/3/2005	---	14.23	---	14.23	0.00
MW-6	2/3/2005	---	13.99	---	13.99	0.00
MW-7	2/3/2005	---	14.17	---	14.17	0.00
MW-10	2/3/2005	---	12.65	---	12.65	0.00
MW-11	2/3/2005	---	13.39	---	13.39	0.00
MW-12	2/3/2005	---	13.70	---	13.70	0.00

* = 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 1a: Groundwater Elevation Data, Vic's Automotive, 245 8th Ave, Oakland, CA
Groundwater Flow Summary**

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	SSE (0.004)

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: 2 Hydrocarbon Analytical Data							
Vic's Automotive, 245 8th Ave, Oakland, CA							
Well/Sample ID	Date Collected	TPHg mg/Kg	MTBE mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ethylbenzene mg/Kg	Xylenes mg/Kg
MW-5 16'	1/11/2005	100	ND<5.0	2.6	6.0	1.5	8.4
MW-5 20'	1/11/2005	37	ND<0.50	2.6	5.6	0.91	4.6
MW-7 16'	1/11/2005	19	2.9	3.3	3.5	0.4	1.9
MW-7 20.5'	1/11/2005	340	ND<5.0	9.6	25	7.0	35
MW-6 20'	1/19/2005	14	ND<0.25	0.099	4.1	0.33	1.7
MW-10 15.5'	1/20/2005	840	ND<2.0	11	58	16	83
MW-11 15.5'	1/19/2005	3,200	ND<10	35	320	85	430
MW-12 15.5'	1/19/2005	13	8.5	2.5	2.8	0.22	1.1

mg/L milligrams per kilogram

TPHg total petroleum hydrocarbons as gasoline

ND = not detected

MTBE methyl tertiary butyl ether

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

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

Well ID	Date Collected	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
	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
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	
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
	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	

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

Well ID	Date Collected	LNAPL thickness (ft)	TPHg $\mu\text{g/L}$	MTBE $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethylbenzene $\mu\text{g/L}$	Xylenes $\mu\text{g/L}$
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	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
	8/9/2004	0.0	130	<5.0	14	13	5.3	17
	11/9/2004	0.0	ND<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	
MW-5	2/3/2005	0.0	78,000	ND<1,000	7,600	13,000	2,200	9,600
MW-6	2/3/2005	Sheen	130,000	ND<1,000	2,400	33,000	2,400	15,000
MW-7	2/3/2005	Sheen	220,000	18,000	45,000	44,000	3,500	18,000
MW-10	2/3/2005	0.0	36,000	ND<500	4,700	7,200	660	3,400
MW-11	2/3/2005	Sheen	170,000	ND<3000	23,000	35,000	3,100	16,000
MW-12	2/3/2005	Sheen	250,000	100,000	52,000	41,000	3,400	15,000

$\mu\text{g/L}$ 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)

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

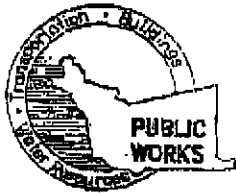
ns/fp = not sampled / free product

ND = not detected

LNAPL = Light Non Aqueous Phase Liquid

Table 4: Water Chemistry Data, Vic's Automotive, 245 8th Ave, Oakland, CA
Vic's Automotive, 245 8th Ave, Oakland, CA

Sample ID	Date	Calcium mg/L	Iron mg/L	Magnesium mg/L E200.1	Potassium mg/L	Sodium mg/L	BOD mg/L SM5210B	COD mg/L SM5220D	TOC mg/L E415.3
MW-3	02/03/04	26,000	2,300	23,000	42000	760	ND<3.0	ND<10.0	2.1
MW-4	02/03/04	10,000	1,500	11,000	360	1,100	ND<3.0	ND<10.0	1.3
MW-7	02/03/04	62,000	58,000	60,000	14000	1,100	19	510	210
MW-12	02/03/04	39,000	3,400	37,000	3600	1,100	29	680	220



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. RAYWARD CA. 94544-1395
PHONE (510) 670-6633 James Yee
FAX (510) 782-1939

www.acfcwd.org

APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE *Appl*

FOR OFFICE USE
PERMIT NUMBER W05-0218

LOCATION OF PROJECT 948 81st Street
Cockleton, CA 94621

WELL NUMBER _____
APN _____

CLIENT
Name Rico & Roberto Medina
Address 948 81st St Apt Phone _____
City Cockleton, CA Zip 94621

APPLICANT
Name AEI Consultants / Robert F. Flory, PE
Address 3580 Camino Diablo Phone 925-944-2895
City Walnut Creek, CA Zip 94597

TYPE OF PROJECT
Well Construction Geotechnical Investigation
Cathodic Protection General
Water Supply Contamination
Monitoring Well Destruction

PROPOSED WATER SUPPLY WELL USE
New Domestic Replacement Domestic
Municipal Irrigation
Industrial Other

DRILLING METHOD:
Mud Rotary Air Rotary Auger
Cable Other Direct Push

DRILLER'S NAME Vibronex
DRILLER'S LICENSE NO. 705927

WELL PROJECTS
Drill Hole Diameter _____ in. Maximum _____
Casing Diameter _____ in. Depth _____ ft.
Surface Seal Depth _____ ft. Owner's Well Number _____

GEOTECHNICAL/CONTAMINATION PROJECTS
Number of Borings 15 Maximum _____
Hole Diameter 2 in. Depth 16 ft.

STARTING DATE March 4, 2005
COMPLETION DATE March 4, 2005

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Robert F. Flory, PE DATE 2/19/05
PLEASE PRINT NAME Robert F. Flory, PE Rev. 5-11-04

PERMIT CONDITIONS

Circled Permit Requirements Apply

- A. GENERAL
 1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
 2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
 3. Permit is void if project not begun within 90 days of approval date.

- B. WATER SUPPLY WELLS
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

- D. GEOTECHNICAL/CONTAMINATION

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind with compacted concrete.

- E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

- F. WELL DESTRUCTION

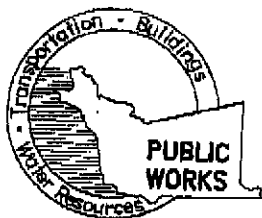
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

- G. SPECIAL CONDITIONS B#1

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

Drilling March 4, 2005

APPROVED _____ DATE 2-25-05

**ALAMEDA COUNTY PUBLIC WORKS AGENCY****WATER RESOURCES SECTION**

399 ELMHURST ST. HAYWARD, CA. 94544-1395
PHONE (510) 670-6633 James Yoo FAX (510) 782-1939

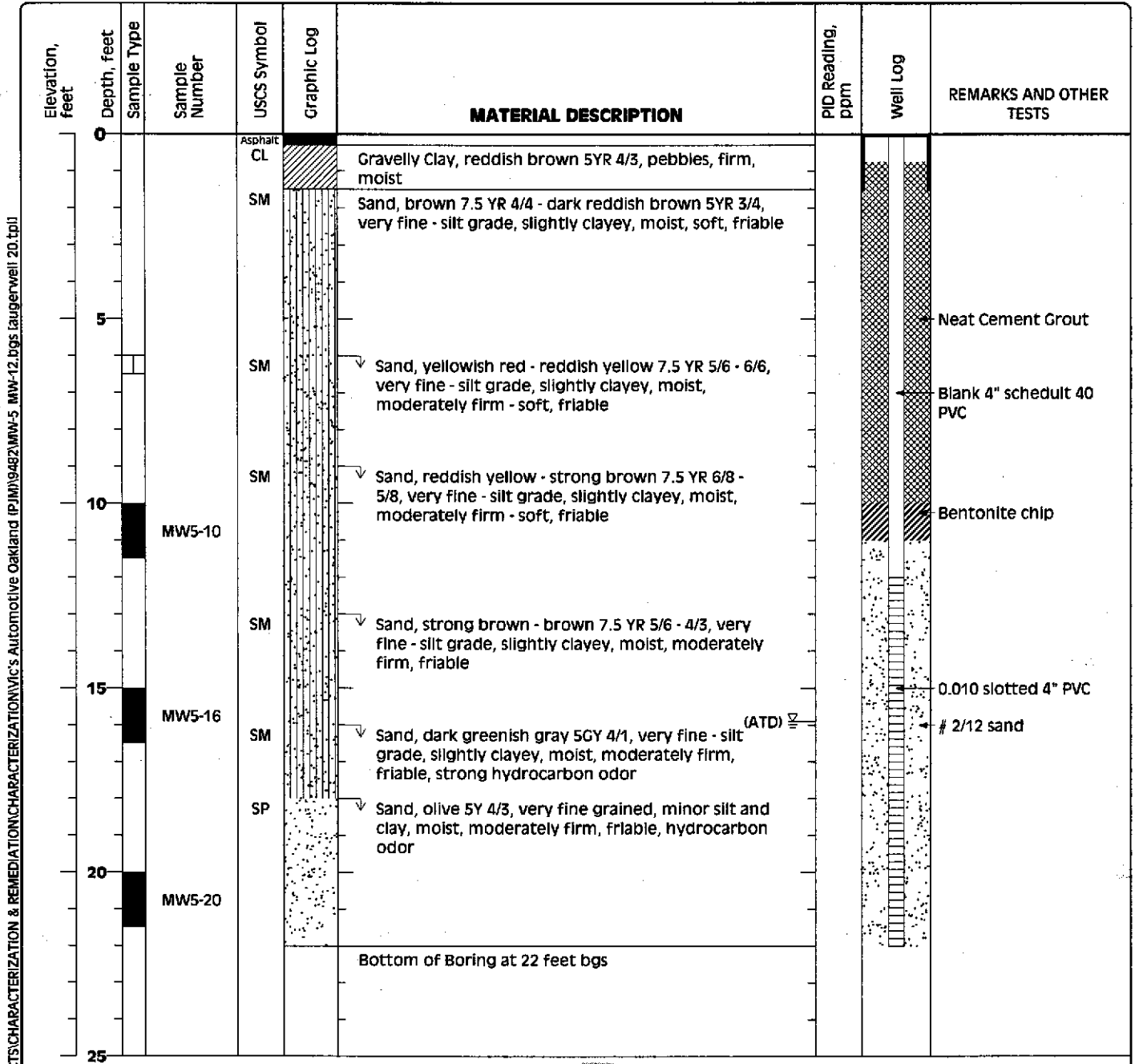
PERMIT NO. W05-0218**WATER RESOURCES SECTION
GROUNDWATER PROTECTION ORDINANCE****B#1-GENERAL CONDITIONS: GEOTECHNICAL & CONTAMINATION BOREHOLES**

1. Prior to any drilling activities, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that Federal, State, County or to the City and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee, permittee's, contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statues regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on-or off site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
4. Permit is valid only for the purpose specified herein **March 4 to March 4, 2005**. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
5. Drilling Permit(s) can be voided/ canceled only in writing. It is the applicants responsibilities to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
6. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
7. Applicant shall contact George Bolton for a inspection time at 510-670-5594 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

Project: Vic's Automotive
Project Location: 245 8th Street, Oakland, CA
Project Number: 9482

Log of Boring MW-5
 Sheet 1 of 1

Date(s) Drilled January 11, 2005	Logged By Robert F. Flory	Checked By Adrian Angel
Drilling Method Hollow Stem Auger	Drill Bit Size/Type	Total Depth of Borehole 22 feet bgs
Drill Rig Type CME 75	Drilling Contractor HEW Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured 15.9 feet ATD	Sampling Method(s) ModCal, Grab	Hammer Data
Borehole Backfill Well Completion	Location	



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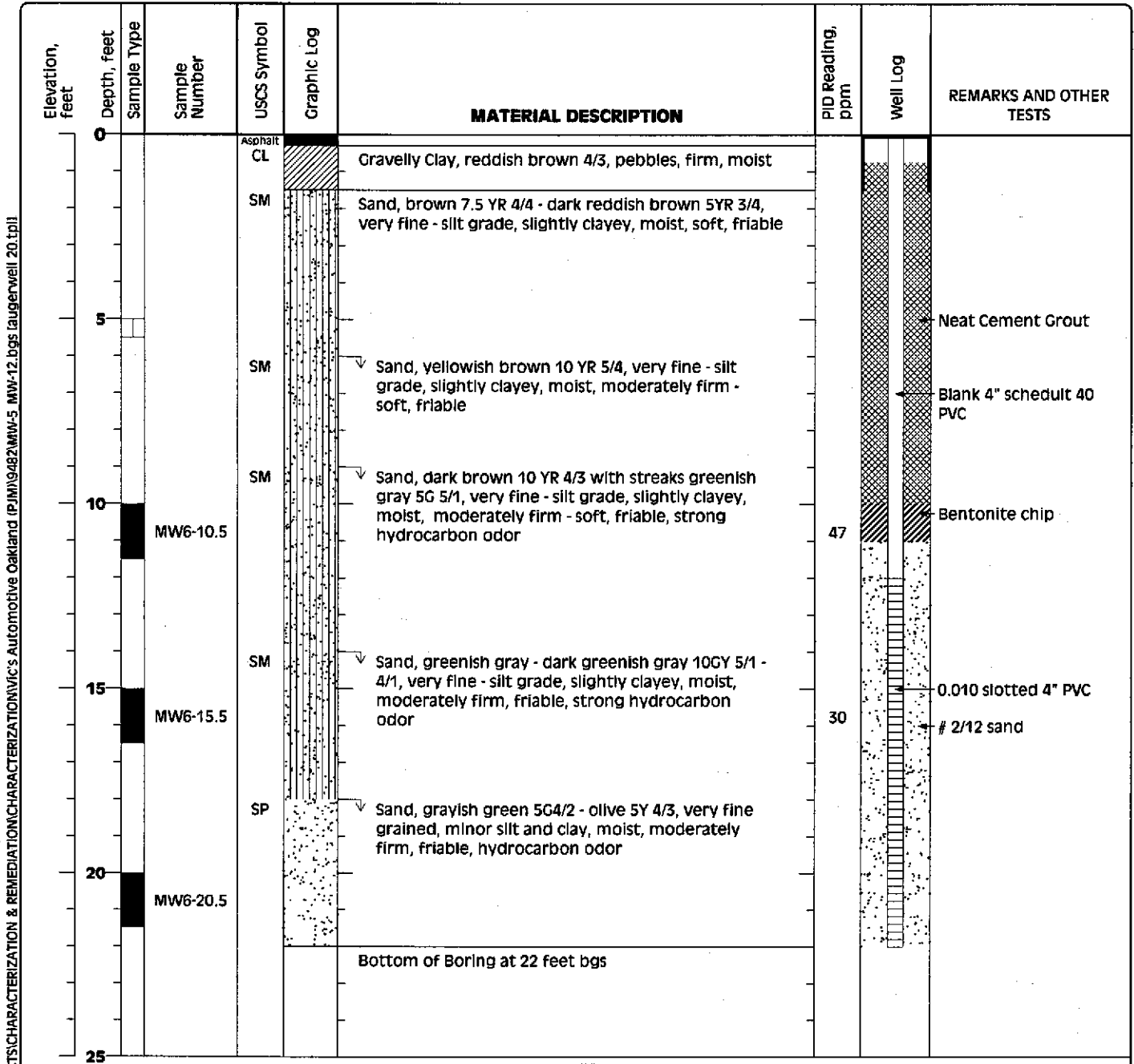


Figure

Project: Vic's Automotive
Project Location: 245 8th Street, Oakland, CA
Project Number: 9482

Log of Boring MW-6
 Sheet 1 of 1

Date(s) Drilled	January 19, 2005	Logged By	Adrian Angel	Checked By	Robert F. Flory
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	10 1/2 inch	Total Depth of Borehole	22 feet bgs
Drill Rig Type	CME 75	Drilling Contractor	HEW Drilling	Approximate Surface Elevation	
Groundwater Level and Date Measured	Not Measured	Sampling Method(s)	ModCal, Grab	Hammer Data	
Borehole Backfill	Well Completion	Location			



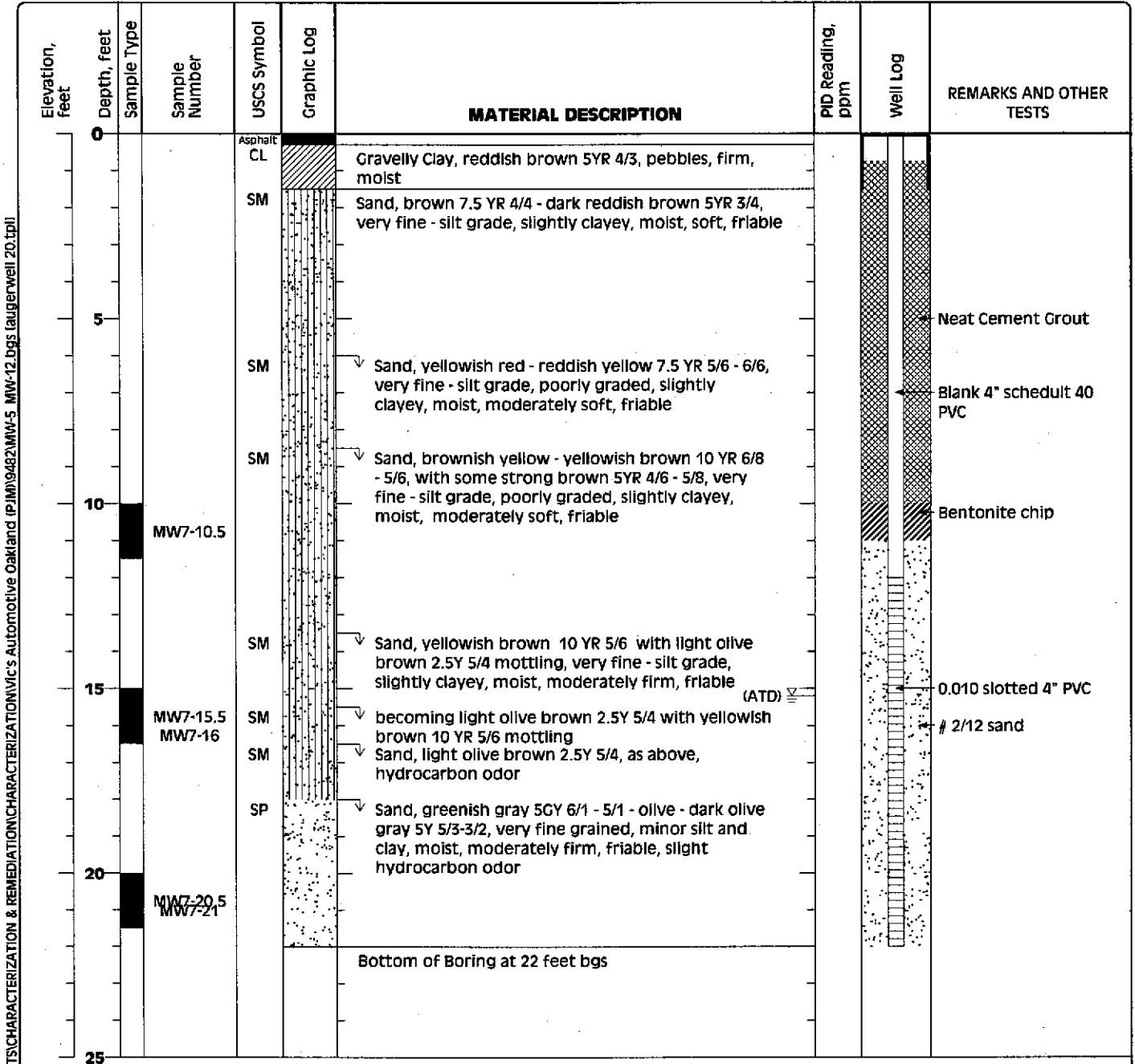
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Project: Vic's Automotive
Project Location: 245 8th Street, Oakland, CA
Project Number: 9482

Log of Boring MW-7
 Sheet 1 of 1

Dates Drilled January 11, 2005	Logged By Robert F. Flory	Checked By Adrian Angel
Drilling Method Hollow Stem Auger	Drill Bit Size/Type 10 1/2 inch	Total Depth of Borehole 22 feet bgs
Drill Rig Type CME 75	Drilling Contractor HEW Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured 15.2 feet ATD	Sampling Method(s) ModCal	Hammer Data
Borehole Backfill Well Completion	Location	



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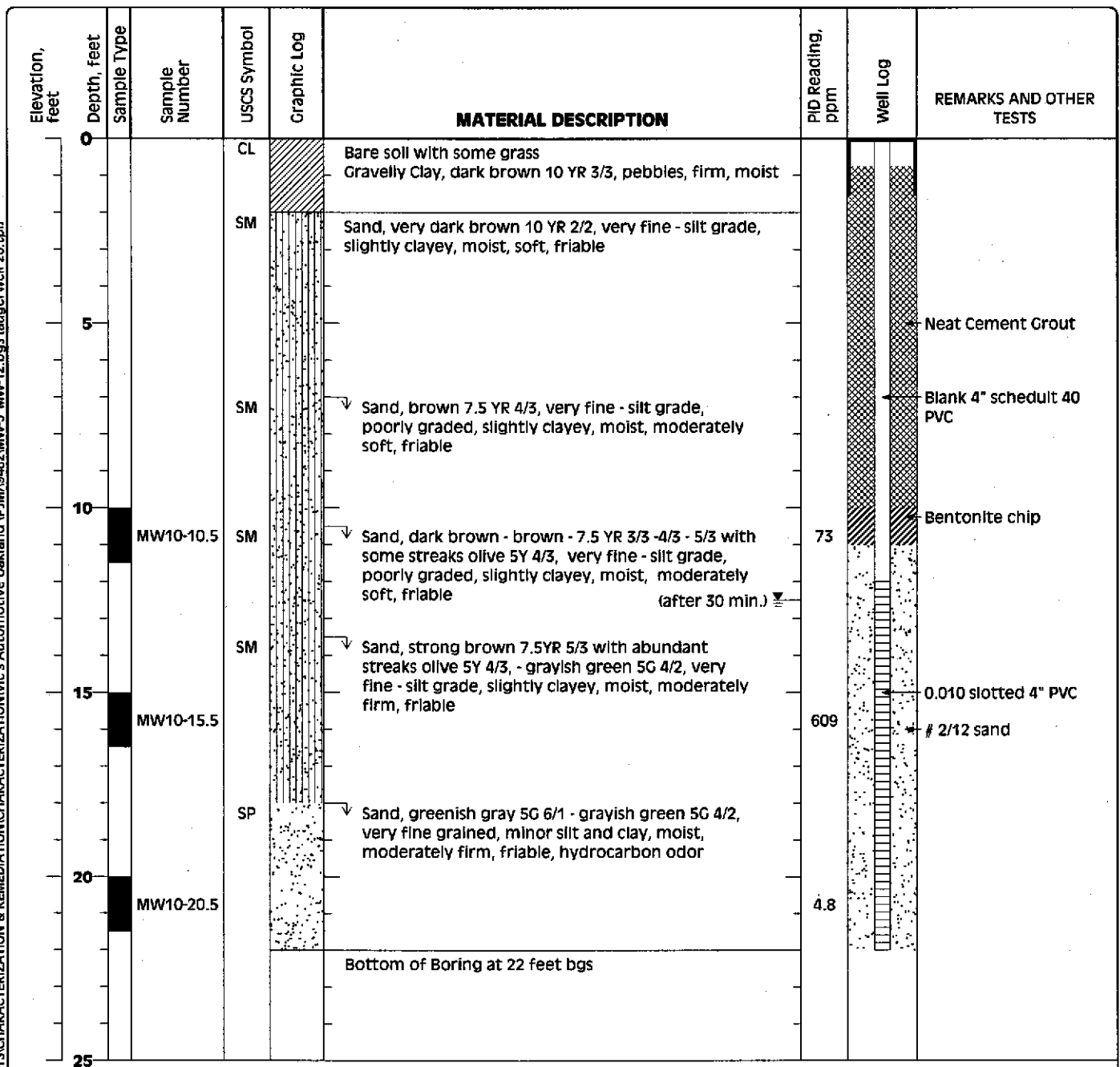
Figure

Project: Vic's Automotive
Project Location: 245 8th Street, Oakland, CA
Project Number: 9482

Log of Boring MW-10
 Sheet 1 of 1

Dates Drilled January 20, 2005	Logged By Adrian Angel	Checked By Robert F. Flory
Drilling Method Hollow Stem Auger	Drill Bit Size/Type 10 1/2 inch	Total Depth of Borehole 22 feet bgs
Drill Rig Type CME 75	Drilling Contractor HEW Drilling	Approximate Surface Elevation
Groundwater Level 12.5 feet after 30 and Date Measured min.	Sampling Method(s) ModCal	Hammer Data
Borehole Backfill Well Completion	Location	

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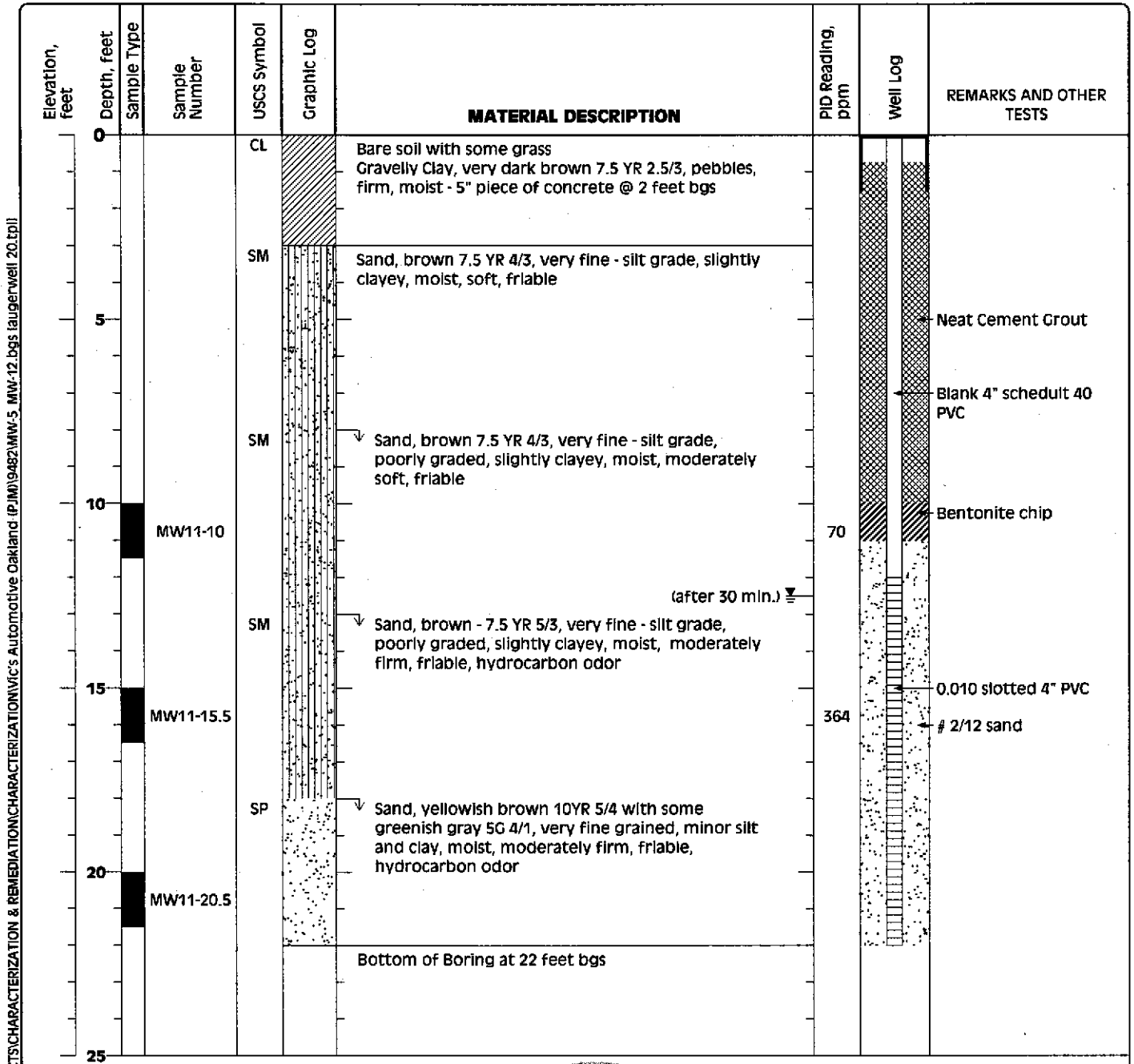
Figure



Project: Vic's Automotive
Project Location: 245 8th Street, Oakland, CA
Project Number: 9482

Log of Boring MW-11
 Sheet 1 of 1

Date(s) Drilled January 20, 2005	Logged By Adrian Angel	Checked By Robert F. Flory
Drilling Method Hollow Stem Auger	Drill Bit Size/Type 10 1/2 inch	Total Depth of Borehole 22 feet bgs
Drill Rig Type CME 75	Drilling Contractor HEW Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured 12.5 feet after 30 min.	Sampling Method(s) ModCal	Hammer Data
Borehole Backfill Well Completion	Location	



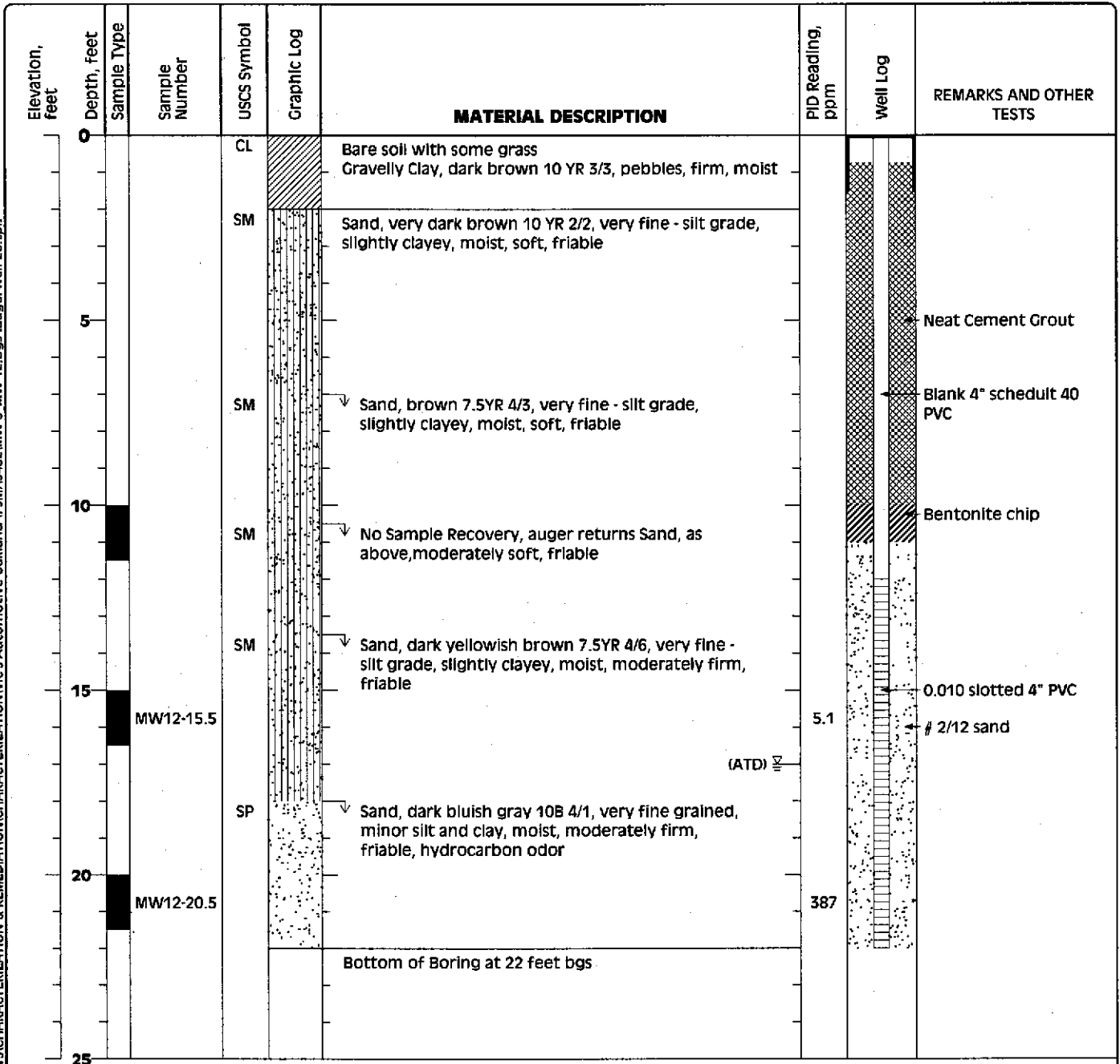
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Project: Vic's Automotive
Project Location: 245 8th Street, Oakland, CA
Project Number: 9482

Log of Boring MW-12
 Sheet 1 of 1

Date(s) Drilled: January 20, 2005	Logged By: Adrian Angel	Checked By: Robert F. Flory
Drilling Method: Hollow Stem Auger	Drill Bit Size/Type: 10 1/2 inch	Total Depth of Borehole: 22 feet bgs
Drill Rig Type: CME 75	Drilling Contractor: HEW Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured: 17 feet ATD	Sampling Method(s): ModCal	Hammer Data
Borehole Backfill: Well Completion	Location	



X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\Vic's Automotive Oakland (PJM)\9482\MW-5_MW-12.bgs taugerwell 20.tpl



Figure

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Vic's Automotive	Date of Sampling:	2/3/2005
Job Number:	4332	Name of Sampler:	Adrian N
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK	<input type="button" value="▼"/>	
Elevation of Top of Casing (feet above msl)	27.73		
Depth of Well	25.00		
Depth to Water (from top of casing)	13.75		
Depth to Free Product (from top of casing)	13.58		
Water Elevation (feet above msl)	13.98		
Well Volumes Purged	na		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	na		
Actual Volume Purged (gallons)	na		
Appearance of Purge Water	na		
Free Product Present?	Yes	Thickness (ft):	0.17

GROUNDWATER SAMPLES

Number of Samples/Container Size				na			
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.)

Due to free product, well not purged or sampled

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Vic's Automotive	Date of Sampling:	2/3/2005
Job Number:	4332	Name of Sampler:	Adrian N
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)	14.44		
Water Elevation (feet above msl)	13.72		
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)	5.1		
Actual Volume Purged (gallons)	7.0		
Appearance of Purge Water	sheen observed		
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	18.22	7.52	13.01	0.02	-164.6	
	4	18.28	7.42	12.55	0.02	-164.9	
	6	18.5	7.65	12.2	0.02	-175.6	

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

Black with strong hydrocarbon odor, becoming gray at 5 gallons. Sheen present while purging

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Vic's Automotive	Date of Sampling:	2/3/2005
Job Number:	4332	Name of Sampler:	Adrian N
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)	15.92		
Water Elevation (feet above msl)	13.29		
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)	17.7		
Actual Volume Purged (gallons)	17		
Appearance of Purge Water	clears 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	18.55	2.84	579	0.42	134.5	
	8	18.53	2.46	598	0.46	175.9	
	12	18.51	2.22	620	0.57	157.4	
	16	18.62	2.29	603	0.32	154.4	
	18	18.79	2.24	609	0.42	156.4	

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

Light brown with slight hydrocarbon odor. Clears quickly

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Vic's Automotive	Date of Sampling:	2/3/2005
Job Number:	4332	Name of Sampler:	Adrian N
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)	14.98	
Water Elevation (feet above msl)	14.40	
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)	19.5	
Actual Volume Purged (gallons)	20.0	
Appearance of Purge Water	clears at 1.5 gallons	
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	19.35	7.08	368	0.34	-245.9	
	8	19.43	7.18	347	0.27	-271.8	
	12	19.64	7.13	301	0.07	-306.9	
	16	19.74	7.99	287	0.00	-303.4	
	20	19.77	7.83	280	0.00	-289.8	

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

Show up brown with no hc odors

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-5

Project Name:	Vic's Automotive	Date of Sampling:	2/3/2005
Job Number:	4332	Name of Sampler:	Adrian N
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	22.00		
Depth to Water (from top of casing)	14.23		
Water Elevation (feet above msl)	15.15		
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	clear at 3.5 gallons		
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	18.81	6.60	1011	0.02	-243.6	
	8	19.00	6.72	1066	0.02	-259.3	
	12	19.10	6.76	1037	0.02	-263.3	
	16	19.28	6.82	814	0.05	-271.1	

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

Water greenish with strong hc odors, turned brown at 7 gallons

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-7

Project Name:	Vic's Automotive	Date of Sampling:	2/3/2005
Job Number:	4332	Name of Sampler:	Adrian N
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	22.00		
Depth to Water (from top of casing)	14.17		
Water Elevation (feet above msl)	15.21		
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	clear at 2.5 gallons		
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	17.98	6.99	1195	0.06	123.5	
	8	18.00	6.86	1195	0.05	130.3	
	12	18.04	6.74	1156	0.03	135.9	
	16	18.15	6.65	1128	0.02	139.3	

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

Milky brown and strong hc odors, brown at 7 gallons
Sheen observed at 10 gallons

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-10

Project Name:	Vic's Automotive	Date of Sampling:	2/3/2005
Job Number:	4332	Name of Sampler:	Adrian N
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	22.00		
Depth to Water (from top of casing)	12.65		
Water Elevation (feet above msl)	16.73		
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)	20.0		
Appearance of Purge Water	clears at 4.5 gallons		
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	18.77	13.92	679	0.01	-267.8	
	8	18.79	7.01	677	0.01	-274.9	
	12	18.80	6.98	658	0.01	72.4	
	16	18.82	6.77	652	0.01	82.9	
	20	18.91	6.45	612	0.01	98.1	

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

Brown with strong hc odor

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-11

Project Name:	Vic's Automotive	Date of Sampling:	2/3/2005
Job Number:	4332	Name of Sampler:	Adrian N
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	22.00		
Depth to Water (from top of casing)	13.39		
Water Elevation (feet above msl)	15.99		
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	clear at 7gallons		
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	18.02	10.42	699	0.01	-140.9	
	6	18.00	11.07	702	0.02	-158.8	
	9	18.02	11.16	776	0.02	-165.5	
	12	18.04	11.05	766	0.02	-160.5	
	15	18.16	11.04	740	0.02	-162.4	
	18	18.20	11.15	615	0.03	-168.9	

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

Brown with strong hc odors

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-12

Project Name:	Vic's Automotive	Date of Sampling:	2/3/2005
Job Number:	4332	Name of Sampler:	Adrian N
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK <input type="button" value="▼"/>		
Elevation of Top of Casing (feet above msl)	29.38		
Depth of Well	22.00		
Depth to Water (from top of casing)	13.70		
Water Elevation (feet above msl)	15.68		
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)	16.1		
Actual Volume Purged (gallons)	17.0		
Appearance of Purge Water	clears at 3 gallons		
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	17.86	10.47	924	0.02	-130.9	
	6	17.89	7.06	895	0.02	-137.1	
	9	17.90	7.15	853	0.02	-143.3	
	12	17.94	7.14	811	0.02	-144.1	
	15	18.07	7.17	759	0.01	-147.1	
	17	18.11	7.18	768	0.01	-148.2	

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

Initially brown color with strong hc odors



McC Campbell Analytical, Inc.

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

All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #9482; Vic's Automotive	Date Sampled: 01/11/04
		Date Received: 01/12/05
	Client Contact: Robert Flory	Date Reported: 01/19/05
	Client P.O.:	Date Completed: 01/19/05

WorkOrder: 0501134

January 19, 2005

Dear Robert:

Enclosed are:

- 1). the results of 8 analyzed samples from your #9482; Vic's Automotive 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



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0501134

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 14634		Spiked Sample ID: 0501146-001A				
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) ^E	ND	0.60	96	98	2.05	96.9	98.6	1.71	70 - 130	70 - 130
MTBE	ND	0.10	93.3	102	9.04	105	104	0.941	70 - 130	70 - 130
Benzene	ND	0.10	103	110	6.70	111	112	1.25	70 - 130	70 - 130
Toluene	ND	0.10	85.3	91	6.44	88.4	90.8	2.69	70 - 130	70 - 130
Ethylbenzene	ND	0.10	105	113	6.72	106	108	1.74	70 - 130	70 - 130
Xylenes	ND	0.30	91.7	100	8.70	91.3	95.7	4.63	70 - 130	70 - 130
%SS:	94	0.10	103	102	0.976	93	102	8.80	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

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicates; 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.

E 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.

 QA/QC Officer

McC Campbell Analytical, Inc.

CHAIN-OF-CUSTODY RECORD



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

WorkOrder: 0501134

ClientID: AEL

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

TEL: (925) 283-6000
 FAX: (925) 283-6121
 ProjectNo: #9482; Vic's Automotive
 PO:

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

Requested TAT: 5 days

Date Received: 01/12/2005

Date Printed: 01/12/2005

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
0501134-002	MW5-16	Soil	1/11/04 9:03:00 AM	<input type="checkbox"/>	A	A													
0501134-003	MW5-20	Soil	1/11/05 9:13:00 AM	<input type="checkbox"/>	A														
0501134-006	MW7-16	Soil	1/11/05 10:50:00	<input type="checkbox"/>	A														
0501134-007	MW7-20.5	Soil	1/11/05 11:00:00	<input type="checkbox"/>	A														

Test Legend:

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

Prepared by: Sonia 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.

0501134

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
 PACHECO, CA 94553-8560
 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? Goelt (Normal) No Write On (DW) No

Report To: Robert Flory Bill To:
 Company: AEI Consultants AEI Consultants
 2500 Camino Diablo, Suite 200 2500 Camino Diablo, Suite 200
 E-Mail: rflory@aeiconsultants.com
 Tele: (925) 944-2899 ext. 122 Fax: (925) 944-2895
 Project #: 9482 Project Name: Vic's Automotive
 Project Location: 245 8th Street, Oakland
 Sampler Signature: *[Signature]*

Analysis Request												Other	Comments
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<i>[Signature]</i>
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SAMPLE ID (Field Point Name)	LOC	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED			
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other
MW5-10		1/11/04	0853	1	2x6									
MW5-16			0903	1	↓									
MW5-20			0913	1										
MW7-10.5			1035	1	2x6									
* MW7-15.9			1050	1	2x6									
MW7-16			1050	1	↓									
MW7-20.5			1100	1	↓									
* MW7-21.0			1100	1	↓									

Relinquished By: *[Signature]* Date: 1/12/05 Time: 0934 Received By: *[Signature]*
 Relinquished By: *[Signature]* Date: Time: Received By:
 Relinquished By: Date: Time: Received By:

ICE/P
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 PRESERVATION APPROPRIATE CONTAINERS
 PERSERVED IN LAB
 VOAS O&G METALS OTHER

* Samples sent to Cooper

0501134

McCAMPBELL ANALYTICAL INC.
 110 2nd AVENUE SOUTH, #D7
 PACHECO, CA 94553-5560
 Telephone: (925) 798-1620 Fax: (925) 798-1622

Report To: Robert Flory Bill To:
 Company: AEI Consultants AEI Consultants
 2500 Camino Diablo, Suite 200 2500 Camino Diablo, Suite 200
 E-Mail: rflory@aeiconsultants.com
 Tele: (925) 944-2899 ext. 122 Fax: (925) 944-2895
 Project #: 9482 Project Name: Vic's Automotive
 Project Location: 245 8th Street, Oakland
 Sampler Signature: *[Signature]*

CHAIN OF CUSTODY RECORD

TURN AROUND TIME RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? (Goelt (Normal)) No Write On (DW) No

SAMPLE ID (Field Point Name)	LOC	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED									
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other						
MW5-10		1/11/04	0853	1	2x6															
MW5-16			0903	1	↓															
MW5-20			0913	1	↓															
MW7-10.5			1035	1	2x6															
* MW7-15.5			1050	1	2x6															
MW7-16			1050	1	↓															
MW7-20.5			1100	1	↓															
* MW7-21.0			1100	1	↓															

Analysis Request											Other	Comments									
	BTEX & TPH as Gas (602/8020 + 8015)/MTBE																				
	TPH as multi-range - gas, diesel, no (8015)																				
	Total Petroleum Oil & Grease (5520 E&F/B&F)																				
	Total Petroleum Hydrocarbons (418.1)																				
	EPA 601 / 8010 (8021B)																				
	BTEX ONLY (By EPA 602 / 8020)																				
	EPA 608 / 8080																				
	EPA 608 / 8080 PCB's ONLY																				
	EPA 624 / 8240 / 8260																				
	EPA 625 / 8270																				
	PAH's / PNA's by EPA 625 / 8270 / 8310																				
	CAM-17 Metals																				
	LUFT 5 Metals																				

[Signature]

Hold

Hold

Feotech + Cooper

Feotech + Cooper

will call cooper for details

Relinquished By: *[Signature]* Date: 1/12/05 Time: 0934 Received By: *[Signature]*

Relinquished By: *[Signature]* Date: Time: Received By:

Relinquished By: Date: Time: Received By:

ICE/° PRESERVATION APPROPRIATE

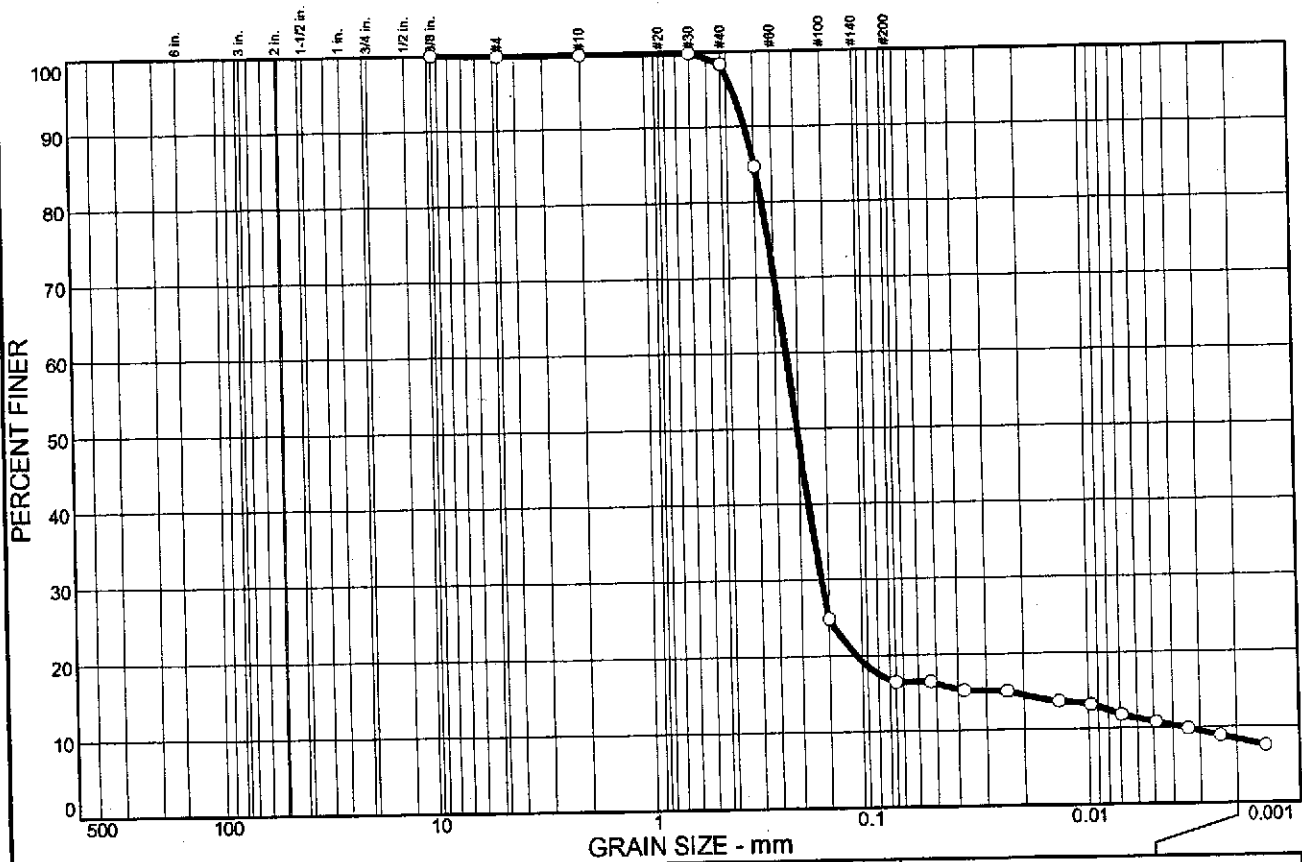
GOOD CONDITION CONTAINERS PRESERVED IN LAB

HEAD SPACE ABSENT VOAS O&G METALS OTHER

DECHLORINATED IN LAB

*Samples sent to Cooper!

PARTICLE SIZE DISTRIBUTION TEST REPORT



% + 3"	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.2	0.0	1.5	81.8	8.1	8.4

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8 in.	100.0		
#4	99.8		
#10	99.8		
#30	99.8		
#40	98.3		
#50	84.7		
#100	24.9		
#200	16.5		
0.0528 mm.	16.5		
0.0375 mm.	15.3		
0.0237 mm.	15.1		
0.0137 mm.	13.7		
0.0097 mm.	13.2		
0.0069 mm.	11.8		
0.0048 mm.	10.8		
0.0034 mm.	9.9		
0.0024 mm.	8.9		
0.0014 mm.	7.6		

Soil Description

Brown Clayey SAND grading to Silty SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 0.301 D₆₀= 0.225 D₅₀= 0.203
D₃₀= 0.162 D₁₅= 0.0230 D₁₀= 0.0035
C_u= 63.71 C_c= 33.12

Classification

USCS= AASHTO=

Remarks

* (no specification provided)

Sample No.: Source of Sample: MW-7 Date: 1/21/05
Location: Elev./Depth: 15.5'

<p>COOPER TESTING LABORATORY</p>	<p>Client: McCampbell Analytical Project: Vic's Automotive - 0501134 / 9482 Project No: 385-010</p>
---	---

Figure



Hydraulic Conductivity

ASTM D 5084

Method C: Falling Head Rising Tailwater

Job No: 385-010 **Boring:** MW7 **Date:** 02/01/05
Client: McCampbell Analytical **Sample:** **By:** MD/PJ
Project: Vic's Automotive - 0501134 **Depth':** 15.5 **Remolded:**
Visual Classification: Brown Clayey SAND grading to Silty SAND

Max Sample Pressures, psi:				B: = >0.95	("B" is an indication of saturation)
Cell:	Bottom	Top	Avg. Sigma 3	Max Hydraulic Gradient: = 17	
53.5	49	48.5	4.75		
Date	Minutes	Head, (in)	K, cm/sec	<p style="font-size: small;">Permeability vs Time graph. Y-axis: Permeability (1.0E-07 to 9.1E-06). X-axis: Time, min. (0.0 to 2000.0). Data points are plotted at various times, showing a constant permeability value around 1.4E-06 cm/sec.</p>	
1/17/05	0.00	24	Start of Test		
1/17/05	272.00	20.30	9.2E-07		
1/18/05	1079.00	11.60	1.1E-06		
1/18/05	1138.00	11.20	1.1E-06		
1/18/05	1170.00	10.80	1.0E-06		
1/18/05	1658.00	7.35	1.1E-06		
1/20/05	15.00	50.89	1.6E-06		
1/20/05	36.00	50.09	1.4E-06		
1/20/05	56.00	49.09	1.4E-06		
1/20/05	157.00	44.69	1.4E-06		

Average Permeability:		1.E-06	cm/sec
Sample Data:	Initial	Final	
Height, in	2.96	2.92	
Diameter, in	2.42	2.42	
Area, in ²	4.59	4.60	
Volume in ³	13.58	13.41	
Total Volume, cc	222.6	219.7	
Volume Solids, cc	142.2	142.2	
Volume Voids, cc	80.4	77.6	
Void Ratio	0.6	0.5	
Porosity, %	36.1	35.3	
Saturation, %	88.8	99.3	
Specific Gravity	2.74	2.74	
Wet Weight, gm	460.9	466.5	
Dry Weight, gm	389.5	389.5	
Tare, gm	0.00	0.00	
Moisture, %	18.3	19.8	
Dry Density, pcf	109.2	110.6	

Remarks:



Hydraulic Conductivity

ASTM D 5084

Method C: Falling Head Rising Tailwater

Job No: 385-010 Boring: MW7 Date: 02/01/05
 Client: McCampbell Analytical Sample: By: MD/PJ
 Project: Vic's Automotive - 0501134 Depth: 21.0 Remolded:
 Visual Classification: Grayish Brown Silty SAND, Cemented

Max Sample Pressures, psi:

B: = >0.95

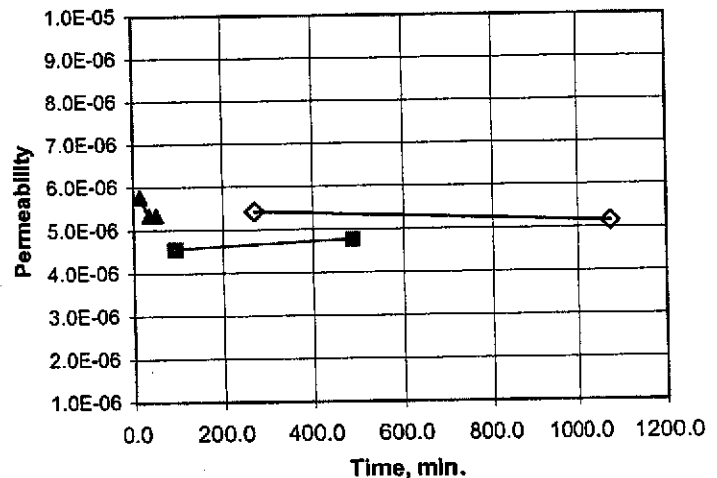
("B" is an indication of saturation)

Cell:	Bottom	Top	Avg. Sigma 3
43.5	39	38.5	4.75

Max Hydraulic Gradient: =

17

Date	Minutes	Head, (in)	K, cm/sec
1/17/05	0.00	24	Start of Test
1/17/05	270.00	8.95	5.4E-06
1/18/05	1077.00	0.80	5.1E-06
1/18/05	96.00	18.00	4.6E-06
1/18/05	488.00	5.20	4.8E-06
1/20/05	15.00	48.89	5.8E-06
1/20/05	36.00	45.69	5.3E-06
1/20/05	53.00	43.09	5.3E-06



Average Permeability:

5.E-06

cm/sec

Sample Data:	Initial	Final
Height, in	2.99	2.93
Diameter, in	2.43	2.44
Area, in ²	4.64	4.68
Volume in ³	13.84	13.70
Total Volume, cc	226.9	224.5
Volume Solids, cc	139.1	139.1
Volume Voids, cc	87.8	85.4
Void Ratio	0.6	0.6
Porosity, %	38.7	38.0
Saturation, %	99.9	100.0
Specific Gravity	2.73	2.73
Wet Weight, gm	467.4	465.1
Dry Weight, gm	379.7	379.7
Tare, gm	0.00	0.00
Moisture, %	23.1	22.5
Dry Density, pcf	104.4	105.5

Remarks:



Specific Gravity by Pycnometer

ASTM D 854m

CTL Job#:	385-010	Project Name:	Vic's Automotive	Date:	01/21/05
Client:	McCampbell Analytical	Project No.:	0501134 / 9482	Run By:	MD
				Checked	DC

Boring:	MW7	MW7						
Sample:								
Depth, ft.:	15.5	21.0						
Pan No.:								
Soil Description (visual)	Brown Clayey SAND grading to Silty SAND	Grayish Brown Poorly Graded SAND with Silt						
Dish No.	A-19	A-21						
Air-Dry Weight, gm	28.17	29.87						
Oven-Dry Weight, gm	28.02	29.75						
Dish Weight, gm	11.43	11.36						
Hydroscopic MC, %	0.9	0.7						
Pycnometer No.:	6	7						
Wt Pycn., Soil & H2O (Wb), g	712.6	727						
Test Temp. (T), °C	16	16						
Wt Pycn. & H2O @ T (Wa), g	663.3	671.97						
Wt of Air-Dried Soil (Wm), g	78.48	87.56						
Wt of Oven-Dried Soil (Wo), g	77.78	86.99						
Temp. Corr. Factor (K)	1.0008	1.0008						
Specific Gravity (20°C) $G_s = \frac{K W_o}{W_o + W_a - W_b}$	2.74	2.73						



McC Campbell Analytical, Inc.

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Website: www.mcccampbell.com E-mail: main@mcccampbell.com

All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #9482; Vic's Automotive	Date Sampled: 01/19/05
		Date Received: 01/20/05
	Client Contact: Robert Flory	Date Reported: 01/25/05
	Client P.O.:	Date Completed: 01/25/05

WorkOrder: 0501258

January 25, 2005

Dear Robert:

Enclosed are:

- 1). the results of 5 analyzed samples from your #9482; Vic's Automotive 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.

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 Website: www.mcccampbell.com E-mail: main@mcccampbell.com

All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #9482; Vic's Automotive	Date Sampled: 01/19/05-01/20/05
	Client Contact: Robert Flory	Date Received: 01/20/05
	Client P.O.:	Date Analyzed: 01/21/05-01/22/05
		Date Extracted: 01/20/05

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0501258

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
003A	MW-6 20.5'	S	14,a	ND<0.25	0.099	4.1	0.33	1.7	5	100
005A	MW-10 15.5'	S	840,a	ND<2.0	11	58	16	83	40	112
008A	MW-11 15.5'	S	3200,a	ND<10	35	320	85	430	200	95
013A	MW-12 20.5'	S	13,a	8.5	2.5	2.8	0.22	1.1	1	102


Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	NA	NA	NA	NA	NA	1	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/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 shecn/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) results are reported by dry weight.

DHS Certification No. 1644

 Angela Rydelius, Lab Manager



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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0501258

Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	0.60	94.7	92.5	2.37	99.2	98.9	0.334	70 - 130	70 - 130
MTBE	ND	0.10	92.9	99.1	6.44	90.2	89.4	0.893	70 - 130	70 - 130
Benzene	ND	0.10	103	111	7.57	104	105	0.581	70 - 130	70 - 130
Toluene	ND	0.10	102	108	6.09	104	103	0.0923	70 - 130	70 - 130
Ethylbenzene	ND	0.10	104	108	3.70	107	106	0.101	70 - 130	70 - 130
Xylenes	ND	0.30	103	110	6.25	110	110	0	70 - 130	70 - 130
%SS:	98	0.10	107	119	10.6	89	111	22.3	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

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 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.

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0501258

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 14743			Spiked Sample ID: 0501221-001B			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) ^E	ND	0.60	96.1	98.2	2.14	94.4	97.7	3.43	70 - 130	70 - 130
MTBE	ND	0.10	89.1	91.9	3.05	97.1	98.9	1.79	70 - 130	70 - 130
Benzene	ND	0.10	102	101	0.928	103	108	4.04	70 - 130	70 - 130
Toluene	ND	0.10	101	102	0.881	102	107	4.62	70 - 130	70 - 130
Ethylbenzene	ND	0.10	104	107	2.88	104	109	4.92	70 - 130	70 - 130
Xylenes	ND	0.30	103	110	6.25	100	110	9.52	70 - 130	70 - 130
%SS:	97	0.10	95	110	14.6	108	111	2.74	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

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

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

* 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.

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

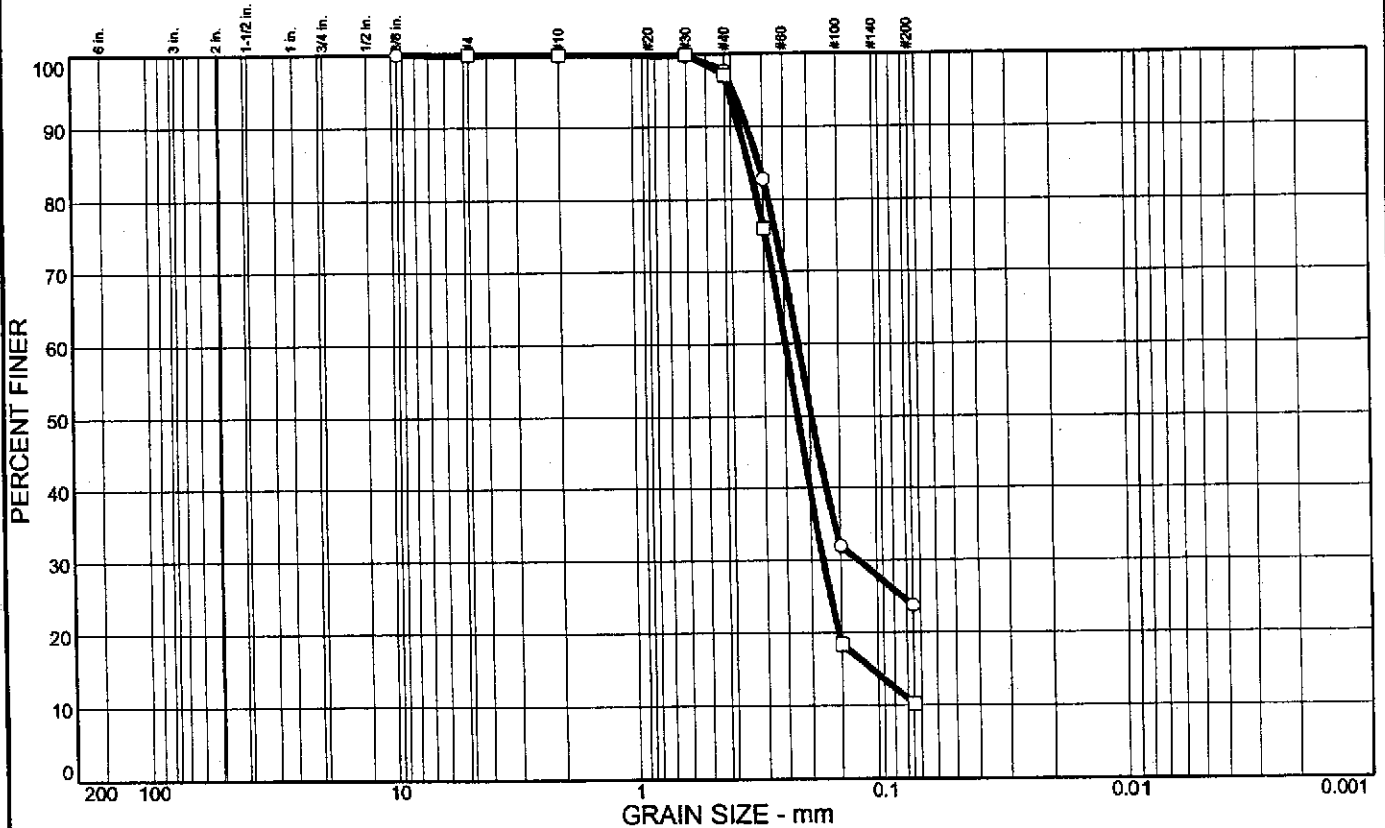
cluttered chromatogram; sample peak coelutes with surrogate peak.

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.

QA/QC Officer

PARTICLE SIZE DISTRIBUTION TEST REPORT



	% + 3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○		0.1	76.1						
□			89.8						

SIEVE inches size	PERCENT FINER		SIEVE number size	PERCENT FINER		SOIL DESCRIPTION
	○	□		○	□	
3/8	100.0		#4	99.9	100.0	○ Reddish Brown Clayey SAND □ Gray Poorly Graded SAND with Silt
			#10	99.9	99.9	
			#30	99.7	99.8	
			#40	97.6	97.1	
			#50	82.8	76.0	
			#100	32.0	18.4	
			#200	23.8	10.2	
GRAIN SIZE						
D60	0.221	0.248				REMARKS: ○ Only one piece of gravel on #4 and #10 sieve. □
D30	0.127	0.178				
D10						
COEFFICIENTS						
C _c						
C _u						

○ Source: MW-11
□ Source: MW-11

Elev./Depth: 15.5'
Elev./Depth: 20.5'

COOPER TESTING LABORATORY

Client: McCampbell Analytical
Project: Vic's Automotive - 9482
Project No.: 385-011

Figure

at

0501258

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? Coelt (Normal) No Write On (DW) No

Report To: Robert Flory Bill To: AEI Consultants
Company: AEI Consultants AEI Consultants
2500 Camino Diablo, Suite 200 2500 Camino Diablo, Suite 200
E-Mail: rflory@aeiconsultants.com
Tele: (925) 944-2899 ext. 122 Fax: (925) 944-2895
Project #: 9482 Project Name: Vic's Automotive
Project Location: 245 8th Street, Oakland
Sampler Signature:

Analysis Request

Other

Comments

SAMPLE ID (Field Point Name)	LOC	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				BTEX & TPH as Gas (602/8020 + 8015)/MTBE TPH as multi-range - gas, diesel, mo (8015) Total Petroleum Oil & Grease (5520 E&F/B&F) Total Petroleum Hydrocarbons (418.1) EPA 601 / 8010 (8021B) BTEX ONLY (By EPA 602 / 8020) EPA 608 / 8080 EPA 608 / 8080 PCB's ONLY EPA 624 / 8240 / 8260 EPA 625 / 8270 PAH's / PNA's by EPA 625 / 8270 / 8310 CAM-17 Metals LUFT 5 Metals Sieve Analysis					
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other						
MW-6 10.5'		1/19/05	11:43a	1	A	X														
MW-6 15.5'		↓	12:08a		C															
MW-6 20.5'		↓	12:12a		e															
MW-10 10.5'		1/20/05	8:39a		t															
MW-10 15.5'		↓	8:54a		a															
MW-10 20.5'		↓	9:00a		t															
MW-11 10'		1/19/05	9:55a		e															
MW-11 15.5'		↓	10:08a																	
MW-11 16.5'		↓	10:07																	
MW-11 20.5'		↓	10:20																	
MW-11 21'		↓	10:23a																	
MW-12 15'		↓	8:23a																	
MW-12 20.5'		↓	8:34a																	

Relinquished By: *[Signature]* Date: 1/20/05 Time: 1:50pm Received By: *[Signature]*
Relinquished By: Date: Time: Received By:
Relinquished By: Date: Time: Received By:

ICE/C₆ ✓ PRESERVATION APPROPRIATE ✓
GOOD CONDITION ✓ CONTAINERS ✓
HEAD SPACE ABSENT PRESERVED IN LAB
DECLORINATED IN LAB



McC Campbell Analytical, Inc.

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Website: www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #9482; Vic's Automotive	Date Sampled: 02/03/05
		Date Received: 02/03/05
	Client Contact: Robert Flory	Date Reported: 02/10/05
	Client P.O.:	Date Completed: 02/10/05

WorkOrder: 0502066

February 10, 2005

Dear Robert:

Enclosed are:

- 1). the results of 9 analyzed samples from your #9482; Vic's Automotive 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



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 Telephone : 925-798-1620 Fax : 925-798-1622
 Website: www.mcccampbell.com E-mail: main@mcccampbell.com

All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #9482; Vic's Automotive	Date Sampled: 02/03/05
	Client Contact: Robert Flory	Date Received: 02/03/05
	Client P.O.:	Date Extracted: 02/05/05-02/10/05
		Date Analyzed: 02/05/05-02/10/05

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0502066

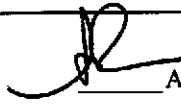
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	MW-2	W	84,000,a	11,000	23,000	5000	3000	5500	100	103
003A	MW-3	W	160,a	ND	13	30	3.0	21	1	98
004A	MW-4	W	370,m	ND	ND	4.1	ND	0.64	1	102
005A	MW-5	W	78,000,a	ND<1000	7600	13,000	2200	9600	200	103
006A	MW-6	W	130,000,a	ND<1000	2400	33,000	2400	15,000	200	102
007A	MW-7	W	220,000,a	18,000	45,000	44,000	3500	18,000	200	116
008A	MW-10	W	36,000,a	ND<500	4700	7200	660	3400	100	119
009A	MW-11	W	170,000,a	ND<3000	23,000	35,000	3100	16,000	100	119
010A	MW-12	W	250,000,a	100,000	52,000	41,000	3400	15,000	1000	117

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	0.5	1	µg/L
	S	NA	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: 0502066

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) ^E	ND	60	81.8	86.1	5.04	95.8	99.8	4.07	70 - 130	70 - 130
MTBE	ND	10	81.6	84.5	3.44	89.6	95	5.85	70 - 130	70 - 130
Benzene	ND	10	85.7	97.8	13.2	90.2	94.1	4.24	70 - 130	70 - 130
Toluene	ND	10	89.1	99.1	10.7	89.3	97.1	8.40	70 - 130	70 - 130
Ethylbenzene	ND	10	97.1	99.9	2.91	89.8	96.9	7.62	70 - 130	70 - 130
Xylenes	ND	30	99.3	99.7	0.335	85.7	90.3	5.30	70 - 130	70 - 130
%SS:	114	10	102	102	0	98	99	1.09	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

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

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

* 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.

^E 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.



McC Campbell Analytical, Inc.

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QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0502066

Analyte	EPA Method: E200.8		Extraction: E200.8			BatchID: 14891		Spiked Sample ID: 0502039-002A		
	Sample µg/L	Spiked µg/L	MS* % Rec.	MSD* % Rec.	MS-MSD* % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	Acceptance Criteria (%) MS / MSD LCS / LCSD	
Calcium	15,000	500	NR	NR	NR	94.2	93	1.33	75 - 125	85 - 115
Iron	170	50	NR	NR	NR	108	107	0.335	75 - 125	85 - 115
Magnesium	35,000	500	NR	NR	NR	99.1	105	5.84	75 - 125	85 - 115
Potassium	2400	500	NR	NR	NR	96.6	98.9	2.37	75 - 125	85 - 115
Silver	ND	5	101	102	0.394	98.2	98.2	0	75 - 125	85 - 115
Sodium	17,000	50	NR	NR	NR	95.3	85.4	10.9	75 - 125	85 - 115
%SS:	116	750	115	118	2.00	102	102	0	80 - 120	80 - 120

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.

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

* Acceptance Criteria for MS / MSD is between 70% and 130%. 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 applicable to this method.

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.

SIA QA/QC Officer



McC Campbell Analytical, Inc.

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QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0502066

EPA Method: E300.1		Extraction: E300.1			BatchID: 14890		Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Chloride	N/A	1	N/A	N/A	N/A	103	102	0.824	N/A	85 - 115
Nitrate as N	N/A	1	N/A	N/A	N/A	102	102	0	N/A	85 - 115
Nitrite as N	N/A	1	N/A	N/A	N/A	97.8	96.8	1.06	N/A	85 - 115
Phosphate as P	N/A	1	N/A	N/A	N/A	95.1	97	1.98	N/A	85 - 115
%SS:	N/A	0.10	N/A	N/A	N/A	102	102	0	N/A	90 - 115

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 / 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 applicable to this method.

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



McC Campbell Analytical, Inc.

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QC SUMMARY REPORT FOR SM5220D

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0502066

EPA Method: SM5220D		Extraction: SM2320B			BatchID: 14918		Spiked Sample ID: 0502066-003E			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
COD	ND	400	106	104	1.75	105	102	2.37	80 - 120	90 - 110
<p>All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE</p>										

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 E415.3

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0502066

EPA Method: E415.3		Extraction: E415.3			BatchID: 14919		Spiked Sample ID: 0502066-003F			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TOC	2.108	60	101	102	0.869	103	104	0.566	70 - 130	80 - 120
<p>All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE</p>										

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 applicable to this method.

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: 0502066

ClientID: AEL

Report to:

Robert Flory
 All Environmental, Inc.
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597

TEL: (925) 283-6000
 FAX: (925) 283-6121
 ProjectNo: #9482; Vic's Automotive
 PO:

Bill to:

Diane
 All Environmental, Inc.
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597

Requested TAT:

5 days

Date Received: 02/03/2005

Date Printed: 02/04/2005

Sample ID	ClientSampleID	Matrix	Collection Date	Hold	Requested Tests (See legend below)															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
0502066-001	MW-1	Water	2/3/05	<input checked="" type="checkbox"/>				A												
0502066-002	MW-2	Water	2/3/05	<input type="checkbox"/>				A		A										
0502066-003	MW-3	Water	2/3/05	<input type="checkbox"/>	B	D	E	A	C			F								
0502066-004	MW-4	Water	2/3/05	<input type="checkbox"/>	B	D	E	A	C			F								
0502066-005	MW-5	Water	2/3/05	<input type="checkbox"/>				A												
0502066-006	MW-6	Water	2/3/05	<input type="checkbox"/>				A												
0502066-007	MW-7	Water	2/3/05	<input type="checkbox"/>	B	D	E	A	C			F								
0502066-008	MW-10	Water	2/3/05	<input type="checkbox"/>				A												
0502066-009	MW-11	Water	2/3/05	<input type="checkbox"/>				A												
0502066-010	MW-12	Water	2/3/05	<input type="checkbox"/>	B	D	E	A	C			F								

Test Legend:

1	300_1_W	2	BOD_W	3	COD_W	4	G-MBTEX_W	5	METALSMS_W
6	PREFD REPORT	7	TOC_W	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.

AEI 05020000

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? Coelt (Normal)

No Write On (DW) No

Report To: Robert Flory **Bill To:**
Company: AEI Consultants **AEI Consultants**
 2500 Camino Diablo, Suite 200 2500 Camino Diablo, Suite 200
E-Mail: rflory@aeiconsultants.com
Tele: (925) 944-2899 ext. 122 **Fax:** (925) 944-2895
Project #: 9482 **Project Name:** Vic's Automotive
Project Location: 245 8th Street, Oakland
Sampler Signature: *Adrian N. Vaca*

Analysis Request **Other** **Comments**

SAMPLE ID (Field Point Name)	LOC	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other					
MW-1		2/3/05		3	Multi-VOAS	X					X	X	X	X					
MW-2		2/3/05		4	"	X					X	X	X	X					
MW-3		2/3/05		10	Various	X					X	X	X	X				X	X
MW-4		2/3/05		10	"	X					X	X	X	X				X	X
MW-5		2/3/05		3	VOAS	X					X	X	X	X					
MW-6		2/3/05		3	"	X					X	X	X	X					
MW-7		2/3/05		10	Various	X					X	X	X	X				X	X
MW-10		2/3/05		3	"	X					X	X	X	X					
MW-11		2/3/05		3	"	X					X	X	X	X					
MW-12		2/3/05		10	Various	X					X	X	X	X				X	X

BTEX & TPH as Gas (402/8020 + 8015)/MTBE	TPH as multi-range - gas, diesel, mo (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 (8021B)	BTEX ONLY (By EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	Chloride, calcium, magnesium, sodium	Potassium, phosphate	Nitrate, nitrite, iron	BOB, COD and TOC					
--	---	---	--------------------------------------	------------------------	-------------------------------	----------------	---------------------------	-----------------------	----------------	--	--------------------------------------	----------------------	------------------------	------------------	--	--	--	--	--

Relinquished By: *Adrian N. Vaca* **Date:** 2/3/05 **Time:** 3:25 **Received By:** *[Signature]*

Relinquished By: _____ **Date:** _____ **Time:** _____ **Received By:** _____

Relinquished By: _____ **Date:** _____ **Time:** _____ **Received By:** _____

ICEA[®] **PRESERVATION** **VOAS** **O&G** **METALS** **OTHER**

GOOD CONDITION **APPROPRIATE**

HEAD SPACE ABSENT **CONTAINERS**

DECHLORINATED IN LAB _____ **PERSERVED IN LAB** _____

PER A.I.N. TO MW-1 Scan



McC Campbell Analytical, Inc.

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All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #9482; Vic's Automotive	Date Sampled: 01/19/05
		Date Received: 01/20/05
	Client Contact: Robert Flory	Date Reported: 01/25/05
	Client P.O.:	Date Completed: 01/25/05

WorkOrder: 0501258

January 25, 2005

Dear Robert:

Enclosed are:

- 1). the results of 5 analyzed samples from your #9482; Vic's Automotive 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.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0501258

Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	0.60	94.7	92.5	2.37	99.2	98.9	0.334	70 - 130	70 - 130
MTBE	ND	0.10	92.9	99.1	6.44	90.2	89.4	0.893	70 - 130	70 - 130
Benzene	ND	0.10	103	111	7.57	104	105	0.581	70 - 130	70 - 130
Toluene	ND	0.10	102	108	6.09	104	103	0.0923	70 - 130	70 - 130
Ethylbenzene	ND	0.10	104	108	3.70	107	106	0.101	70 - 130	70 - 130
Xylenes	ND	0.30	103	110	6.25	110	110	0	70 - 130	70 - 130
%SS:	98	0.10	107	119	10.6	89	111	22.3	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

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 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



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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0501258

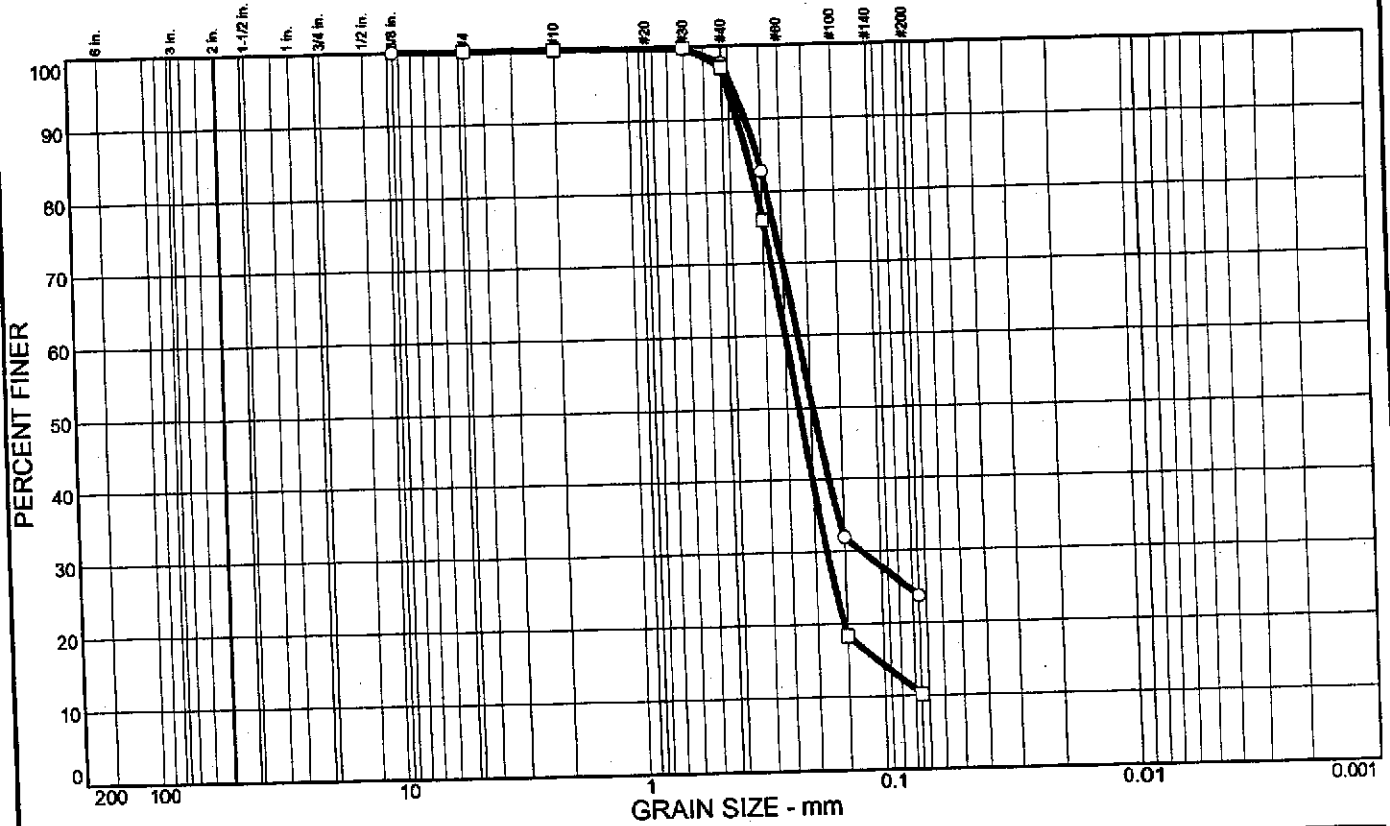
EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 14743			Spiked Sample ID: 0501221-001B			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	0.60	96.1	98.2	2.14	94.4	97.7	3.43	70 - 130	70 - 130
MTBE	ND	0.10	89.1	91.9	3.05	97.1	98.9	1.79	70 - 130	70 - 130
Benzene	ND	0.10	102	101	0.928	103	108	4.04	70 - 130	70 - 130
Toluene	ND	0.10	101	102	0.881	102	107	4.62	70 - 130	70 - 130
Ethylbenzene	ND	0.10	104	107	2.88	104	109	4.92	70 - 130	70 - 130
Xylenes	ND	0.30	103	110	6.25	100	110	9.52	70 - 130	70 - 130
%SS:	97	0.10	95	110	14.6	108	111	2.74	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

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.
 * 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 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

PARTICLE SIZE DISTRIBUTION TEST REPORT



% + 3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
<input type="radio"/>	0.1	76.1						
<input type="checkbox"/>		89.8						

SIEVE inches size	PERCENT FINER	
	○	□
3/8	100.0	
GRAIN SIZE		
D ₆₀	0.221	0.248
D ₃₀	0.127	0.178
D ₁₀		
COEFFICIENTS		
C _c		
C _u		

SIEVE number size	PERCENT FINER	
	○	□
#4	99.9	100.0
#10	99.9	99.9
#30	99.7	99.8
#40	97.6	97.1
#50	82.8	76.0
#100	32.0	18.4
#200	23.8	10.2

SOIL DESCRIPTION

Reddish Brown Clayey SAND

Gray Poorly Graded SAND with Silt

REMARKS:

Only one piece of gravel on #4 and #10 sieve.

Elev./Depth: 15.5'
Elev./Depth: 20.5'

○ Source: MW-11
□ Source: MW-11

ARV

0501258

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #07
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? Coelt (Normal) No Write On (DW) No

Report To: Robert Flory **Bill To:** AEI Consultants
Company: AEI Consultants **2500 Camino Diablo, Suite 200**
Tele: (925) 944-2899 ext. 122 **E-Mail:** rflory@aeiconsultants.com
Project #: 9482 **Fax:** (925) 944-2895
Project Location: 245 8th Street, Oakland **Project Name:** Vic's Automotive
Sampler Signature:

Analysis Request		Other	Comments
BTEX & TPH as Gas (602/8020 + 8015)/MTBE			
TPH as multi-range - gas, diesel, no (8015)			
Total Petroleum Oil & Grease (5520 E&F/B&F)			
Total Petroleum Hydrocarbons (418.1)			
EPA 601 / 8010 (8021B)			
BTEX ONLY (By EPA 602 / 8020)			
EPA 608 / 8080			
EPA 608 / 8080 PCB's ONLY			
EPA 624 / 8240 / 8260			
EPA 625 / 8270			
PAH's/PNA's by EPA 625 / 8270 / 8310			
CAM-17 Metals			
LUFT 5 Metals			
Sieve Analysis			

SAMPLE ID (Field Point Name)	LOC	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED						
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other			
MW-6 10.5'		1/19/05	11:43a	1	A	X					X						
MW-6 15.5'		↓	12:08a	1	C												
MW-6 20.5'		↓	12:12a	1	C												
MW-10 10.5'		1/20/05	8:39a	1	T												
MW-10 15.5'		↓	8:56a	1	T												
MW-10 20.5'		↓	9:00a	1	T												
MW-11 10'		1/19/05	9:55a	1	C												X
MW-11 15.5'		↓	10:07a	1	C												X
MW-11 16.5'		↓	10:20a	1	C												
MW-11 20.5'		↓	10:23a	1	C												
MW-11 21'		↓	8:23a	1	C												
MW-12 15'		↓	8:34a	1	C												
MW-12 20.5'		↓		1	C												

Relinquished By: [Signature] **Date:** 1/20/05 **Time:** 1:50pm **Received By:** [Signature]
Relinquished By: [Signature] **Date:** [] **Time:** [] **Received By:** []
Relinquished By: [] **Date:** [] **Time:** [] **Received By:** []

ICE/C **PRESERVATION APPROPRIATE CONTAINERS**
GOOD CONDITION **VOAS** **O&G** **METALS** **OTHER**
HEAD SPACE ABSENT **DECLORINATED IN LAB** **PERSERVED IN LAB**