



July 10, 2000

#359

REPORT
of
ADDITIONAL SOIL AND GROUNDWATER ASSESSMENT
ASE JOB NO. 3540
at
Oakland Truck Stop
8255 San Leandro Street
Oakland, California

Submitted by:
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1.0 INTRODUCTION

This report presents the results of Aqua Science Engineers, Inc. (ASE)'s soil and groundwater assessment at the Oakland Truck Stop located at 8255 San Leandro Street in Oakland, California (Figure 1). The site assessment activities were initiated by Mr. Nissan Saidian, owner of the property, as requested by the Alameda County Health Care Services Agency (ACHCSA).

2.0 BACKGROUND INFORMATION

The subject site is currently a truck stop that has been in operation since the early 1960s.

In March 1998, W.A. Craig, Inc. removed one 500-gallon waste oil underground storage tank (UST) and two 4,000-gallon gasoline USTs from the site. Up to 460 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPH-G), 930 ppm total petroleum hydrocarbons as diesel (TPH-D), 5.8 ppm benzene, 1.7 ppm toluene, 8.2 ppm ethyl benzene, 3.3 ppm total xylenes and 0.64 ppm methyl tertiary butyl ether (MTBE) were detected in soil samples collected from the gasoline UST excavations at the time of the removal. Up to 3,600 ppm TPH-G, 21,000 ppm TPH-D, 2.1 ppm benzene, 8 ppm toluene, 18 ppm ethyl benzene, 15 ppm total xylenes and 8.1 ppm MTBE were detected in soil samples collected from the waste oil UST excavation. Water samples collected from the UST excavations contained up to 5,500 parts per billion (ppb) TPH-G, 880,000 ppb TPH-D, 580 ppb benzene, 12 ppb toluene, 180 ppb ethyl benzene, 39 ppb total xylenes and 1,900 ppb MTBE. W.A. Craig reported that all contaminated soil from both the gasoline and waste oil UST excavations was removed based on visual, olfactory and photoionization detector readings. This contaminated soil was transported from the site for disposal in a Class II landfill. The excavations were backfilled with clean imported material.

In February 1999, Penn Environmental drilled 13 soil borings at the site and constructed groundwater monitoring wells in four of the borings (Figure 2, from Penn Environmental report). Relatively low hydrocarbon concentrations were detected in soil samples collected near the former waste oil USTs, and relatively low to moderate hydrocarbon concentrations were detected in groundwater samples collected from these borings. Soil samples collected from borings B-4, B-6, B-8 and MW-3 contained TPH-G concentrations over 100 ppm and benzene concentrations over 1 ppm. All of these borings are in the vicinity of the

existing gasoline USTs. Soil samples collected from the remaining borings contained much lower TPH-G and benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX) concentrations in soil. Soil samples collected from all of the borings contained TPH-D concentrations over 100 ppm except for samples collected from borings B-7 and B-9, at the southern and western corners of the site. Up to 68,000 ppb TPH-G, 62,000 ppb TPH-D, 24,000 ppb benzene, 390 ppb toluene, 2,000 ppb ethyl benzene, 2,300 ppb total xylenes and 28,000 ppb MTBE were detected in groundwater samples collected from these monitoring wells/borings. Once again, the highest TPH-G and BTEX concentrations were in the wells/borings drilled near the existing USTs, although the highest TPH-D concentrations (between 25,000 ppb and 62,000 ppb) were detected in groundwater samples collected from monitoring well MW-1 and borings B-1 and B-2, all in the vicinity of the dispensers. Elevated MTBE concentrations (up to 7,800 ppb) were also detected in groundwater samples collected from borings in the dispenser area.

In August 1999, ASE performed quarterly groundwater monitoring for the site. Monitoring well MW-1 contained free-floating hydrocarbons believed to be diesel. Groundwater samples collected from monitoring well MW-3 contained 56,000 ppb TPH-G, 10,000 ppb TPH-D, 17,000 ppb benzene, 2,600 ppb toluene, 2,600 ppb ethyl benzene, 1,200 ppb total xylenes and 6,100 ppb MTBE. Much lower hydrocarbon concentrations were detected in groundwater samples collected from monitoring wells MW-2 and MW-4, located near the former waste oil USTs. In addition, the groundwater samples collected from monitoring wells MW-2 and MW-4, near the former waste oil USTs were also analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated bi-phenols (PCBs), cadmium, chromium, lead, nickel and zinc. No SVOCs, PCBs or VOCs were detected in these samples other than 11 ppb isopropyl benzene. The only metal concentration which exceeded California Department of Health Services (DHS) maximum contaminant levels (MCLs) for drinking water was lead in the groundwater sample collected from monitoring well MW-4 at 260 ppb. The groundwater flow direction was to the west. See Tables One and Two for tabulated results from this and subsequent groundwater samplings.

In December 1999, ASE constructed monitoring wells MW-5 and MW-6 at the site (Figure 3). Free-floating hydrocarbons were still present on the groundwater surface of monitoring well MW-1. High hydrocarbon concentrations, including benzene, ethyl benzene and MTBE concentrations exceeding DHS MCLs for drinking water, were detected in groundwater samples collected from monitoring well MW-2. Benzene

concentrations in groundwater samples collected from monitoring wells MW-2 and MW-6 exceeded DHS MCLs for drinking water. The MTBE concentration in groundwater samples collected from monitoring wells MW-3, MW-4 and MW-5 also exceeded DHS MCLs for drinking water. MTBE was confirmed in monitoring well MW-3 by EPA Method 8260. Most of these concentrations were similar to previous results. No dissolved lead was detected in groundwater samples collected from monitoring well MW-4 this quarter. The groundwater flow direction was to the southwest.

In March 2000, ASE conducted a groundwater monitoring event at the site. The analytical results from this sampling showed very similar hydrocarbon concentrations to the previous sampling results except that high MTBE concentrations (12,000 ppb) were detected in the groundwater sample collected from monitoring well MW-6. Free-floating hydrocarbons were still present in monitoring well MW-1.

3.0 SCOPE OF WORK (SOW)

The purpose of this assessment was to further define the extent of soil and groundwater contamination at the site. The scope of work for this assessment was to:

- 1) Prepare a workplan and health and safety plan for submittal to the Alameda County Health Care Services Agency (ACHCSA).
- 2) Obtain a drilling permit from the Alameda County Public Works Agency and an excavation permit from the City of Oakland to drill in San Leandro Street.
- 3) Contract with a subsurface utility locator to mark underground utility lines in the site vicinity.
- 4) Drill eight (8) soil borings in areas both on and off the site. Collect soil and groundwater samples for analysis.
- 5) Analyze one soil and one groundwater sample from each boring at a CAL-EPA certified analytical laboratory for TPH-G, TPH-D, TPH-MO, BTEX and fuel oxygenates.
- 6) Following collection of the soil and groundwater samples, backfill each boring with neat cement to the ground surface.
- 7) Prepare a report presenting results from this assessment.

4.0 DRILL SOIL BORINGS AND COLLECT SAMPLES

Prior to drilling, underground utility lines were located by Subtronic Corporation of Concord, California. Underground Service Alert (USA) was also notified at least 48 hours prior to drilling. ASE obtained a drilling permit from the Alameda County Public Works Agency (ACPWA). Since borings could be placed between the underground utility lines and the eastern property line, all of the borings were located in on-site locations and a City of Oakland excavation permit was not required.

On May 31 and June 1, 2000, V&W Drilling of Rio Vista, California drilled eight soil borings at the site using a Geoprobe hydraulic sampling rig (Figure 3). The drilling for borings BH-A through BH-F was directed by ASE senior geologist Robert E. Kitay, R.G. The drilling for borings BH-G and BH-H was directed by ASE associate geologist Ian Reed.

Undisturbed soil samples were collected continuously as drilling progressed for lithologic and hydrogeologic description and for possible chemical analysis. The samples were collected by driving a sampler lined with acetate tubes using hydraulic direct push methods. Selective soil samples were immediately cut, trimmed, sealed with Teflon tape, plastic end caps and duct tape, labeled, sealed in plastic bags and stored on ice for transport to Kiff Analytical of Davis, California (ELAP #2236) under chain of custody. Soil from the remaining tubes was described by the site geologist using the Unified Soil Classification System and was screened for volatile compounds using an OVM. The soil was screened by emptying soil from one of the sample tubes into a plastic bag. The bag was then sealed and placed in the sun for approximately 10 minutes. After the volatile compounds were allowed to volatilize, the OVM measured the vapor in the bag through a small hole punched in the bag. OVM readings are used as a screening tool only, since the procedures are not as rigorous as those used in the laboratory.

Groundwater samples were removed from the borings using pre-cleaned stainless steel bailers. The groundwater samples to be analyzed for volatile compounds were contained in 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, and sealed without headspace. The groundwater samples to be analyzed for non-volatile compounds were contained in 1-liter amber glass containers. The samples were labeled, placed in protective foam sleeves, and stored on ice for transport to Kiff Analytical of Davis, California under chain of custody.

Drilling equipment was cleaned with a TSP solution between sampling intervals and between borings to prevent potential cross-contamination.

Sediments encountered during drilling generally consisted of silty clay from beneath the asphalt surface to approximately 12-feet below ground surface (bgs) and sandy silt from 12-feet bgs to the total depth explored of 16-feet bgs. Groundwater was encountered at approximately 12-feet bgs. Boring logs are presented as Appendix A.

5.0 ANALYTICAL RESULTS FOR SOIL

Soil samples collected from 7.5 and 11.5-foot bgs in borings BH-A and BH-B, 11.5-foot bgs in borings BH-C, BH-D, BH-E and BH-F, 12.0-foot bgs in boring BH-G, and 8 and 12-foot bgs in boring BH-H were analyzed by Kiff Analytical for TPH-D and TPH-MO by modified EPA Method 3510/8015 and TPH-G, BTEX and oxygenates by EPA Method 8260. The analytical results are tabulated in Tables Three and Four, and the certified analytical report and chain of custody forms are included in Appendix B.

Soil samples collected from boring BH-A contained TPH-G and TPH-D concentrations over 100 ppm and benzene concentrations exceeding the United States Environmental Protection Agency (USEPA) Region IX preliminary remediation goal (PRG) for residential soil. BTEX concentrations in the soil samples collected from this boring ranged from less than 1 ppm to 15 ppm. TPH-G and TPH-D concentrations in soil samples collected from boring BH-B also exceeded 100 ppm; however, all of the BTEX concentrations were below 1 ppm and none of the BTEX concentrations detected in this boring exceeded USEPA PRGs for residential soil. Soil samples collected from borings BH-G and BH-H contained TPH-G over 100 ppm and TPH-D over 1,000 ppm; however, all of the BTEX concentrations were below 1 ppm and none of the BTEX concentrations detected in this boring exceeded USEPA PRGs for residential soil. Soil samples collected from borings BH-C, BH-D, BH-E and BH-F did not contain any significant concentrations of TPH-G, TPH-D or BTEX. However, MTBE concentrations detected in soil samples collected from borings BH-C and BH-D exceeded 1 ppm. Lower concentrations of MTBE were detected in soil samples collected from borings BH-B, BH-G and BH-H. Relatively low concentrations of TAME and/or TBA were also detected in the soil samples collected from borings BH-B, BH-C and BH-D.

6.0 ANALYTICAL RESULTS FOR GROUNDWATER

The groundwater samples were analyzed by Kiff Analytical for TPH-D and TPH-MO by modified EPA Method 3510/8015 and TPH-G, BTEX and oxygenates by EPA Method 8260. The analytical results are tabulated in Tables Five and Six, and the certified analytical report and chain of custody forms are included in Appendix B. TPH-G, TPH-D, TPH-MO, benzene and MTBE isoconcentration maps are presented as Figures 4 through 8, respectively.

Groundwater samples collected from boring BH-A contained 43,000 ppb TPH-G, 8,700 ppb TPH-D, 4,000 ppb benzene, 400 ppb toluene, 2,200 ppb ethyl benzene, 3,100 ppb total xylenes, and 46 ppb MTBE. All of these BTEX concentrations are the highest of any of the borings drilled during this portion of this assessment. These BTEX and MTBE concentrations exceeded California Department of Health Services (DHS) maximum contaminant levels (MCLs) for drinking water. The groundwater samples collected from boring BH-B contained 51,000 ppb TPH-G, 120,000 ppb TPH-D, 430 ppb benzene, 700 ppb ethyl benzene, 19 ppb total xylenes, 6,200 ppb MTBE, 37 ppb TAME and 1,000 ppb TBA. These benzene, toluene and MTBE concentrations exceeded DHS MCLs for drinking water. Groundwater samples collected from borings BH-C through BH-F contained TPH-MO at concentrations ranging from 780 ppb to 11,000 ppb. No TPH-G or BTEX were detected in any of these borings. The only TPH-D concentration detected in any of these borings was 200 ppb in the groundwater sample collected from boring BH-C. Groundwater samples collected from borings BH-C and BH-D contained MTBE concentrations ranging from 13,000 ppb to 42,000 ppb, TAME concentrations ranging from 100 ppb to 250 ppb and TBA concentrations ranging from 2,600 to 6,800 ppb. These oxygenate concentrations would be considered very elevated with the MTBE concentrations well above the DHS MCL for drinking water. Only 6 ppb MTBE was detected in groundwater samples collected from boring BH-E, and no MTBE or other oxygenate was detected in the groundwater samples collected from boring BH-F. Groundwater samples collected from boring BH-G contained 120,000 ppb TPH-G, 2,200,000 ppb TPH-D and 170 ppb MTBE. Groundwater samples collected from boring BH-H contained 1,400 ppb TPH-D and 1,400 ppb TPH-MO. No BTEX was detected in groundwater samples collected from either BH-G or BH-H.

*Sub to be
F.P.*

7.0 CONCLUSIONS AND RECOMMENDATIONS

Soil samples collected from boring BH-A contained TPH-G and TPH-D concentrations over 100 ppm and BTEX concentrations ranging from less than 1 ppm to 15 ppm. The benzene concentrations in soil samples collected from boring BH-A exceeded the USEPA PRG for residential soil. TPH-G and TPH-D concentrations in soil samples collected from boring BH-B also exceeded 100 ppm; however, all of the BTEX concentrations were below 1 ppm, and none of the BTEX concentrations exceeded USEPA PRGs for residential soil. Soil samples collected from borings BH-G and BH-H contained TPH-G over 100 ppm and TPH-D over 1,000 ppm; however, all of the BTEX concentrations were below 1 ppm, and none of the BTEX concentrations detected in these borings exceeded USEPA PRGs for residential soil. Soil samples collected from borings BH-C, BH-D, BH-E, and BH-F did not contain any significant concentrations of TPH-G, TPH-D or BTEX. MTBE concentrations detected in soil samples collected from borings BH-C and BH-D exceeded 1 ppm. Lower concentrations of MTBE were detected in soil samples collected from borings BH-B, BH-G and BH-H.

Relatively high TPH-G, TPH-D and BTEX concentrations were detected in groundwater samples collected from borings BH-A and BH-B, west and southwest of the former USTs. Groundwater samples collected from these borings contained TPH-G as high as 51,000 ppb, TPH-D as high as 120,000 ppb and benzene as high as 4,000 ppb. The MTBE concentration in boring BH-A, which contained the highest BTEX concentrations, was only 46 ppb, suggesting that these BTEX concentrations may be related primarily to an older release.

Groundwater samples collected from borings BH-C, BH-D and BH-E, along the southern property line and south of the existing USTs, contained TPH-MO as high as 11,000 ppb, MTBE as high as 42,000 ppb and TBA as high as 6,800 ppb. Since no TPH-G or BTEX was detected in the groundwater samples collected from these borings, it appears that the MTBE concentrations may be related to a more recent release.

A very high TPH-D concentration of 2,200,000 ppb was detected in groundwater samples collected from boring BH-G, near the pump island. TPH-G and MTBE were also detected in groundwater samples collected from boring BH-G at 120,000 ppb and 170 ppb, respectively. This boring is east of monitoring well MW-1 which contains free-floating hydrocarbons. The remaining two borings, BH-F and BH-H, both drilled in the eastern portion of the property, contained TPH-D and/or TPH-MO at

concentrations as high as 1,400 ppb, but did not contain detectable concentrations of BTEX or oxygenates.

In summary, there appears to have been at least three separate releases at the site. One older release of gasoline that is responsible for the elevated TPH-G and BTEX concentrations west of the former and existing USTs, one newer release responsible for the elevated MTBE concentrations south of the existing USTs, and a release from either the underground piping or from an overspill in the vicinity of the fuel dispensers. In addition, there appears to be a minor release from either an additional unknown source on the northern portion of the site or from an off-site source to the north. There are also two areas at the site with elevated TPH-MO concentrations, at the southern edge of the property and on the northeastern edge of the property. The area with the elevated TPH-MO concentrations along the southern edge of the property is an unpaved area where trucks park; however, no elevated TPH-MO concentrations were detected in the soil samples collected from these locations.

The extent of soil and groundwater contamination is not yet defined in any direction. ASE recommends further definition of the extent of soil and groundwater contamination. In addition, ASE also recommends the placement of a more efficient skimmer in monitoring well MW-1.

8.0 REPORT LIMITATIONS

The results of this assessment represent conditions at the time of the soil and groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

This report does not fully characterize the site for contamination resulting from unknown sources or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-EPA certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

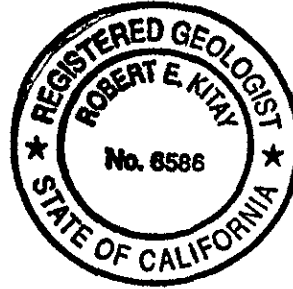
Aqua Science Engineers appreciates the opportunity provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Robert E. Kitay, R.G., R.E.A.
Senior Geologist



Attachments: Figures 1 through 3
Appendices A through C

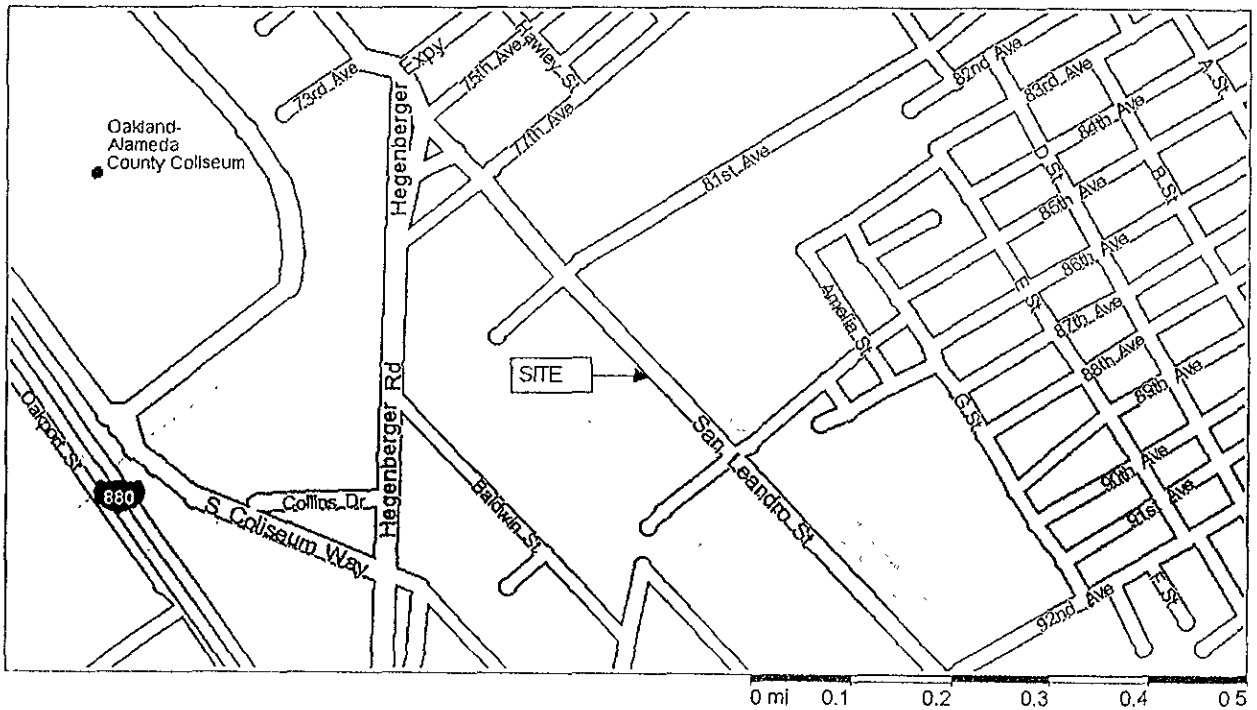
cc: Mr. Barney Chan, Alameda County Health Care Services Agency,
1311 Harbor Bay Parkway, Suite 250, Alameda, CA 94502

Mr. Chuck Headlee, California Regional Water Quality Control Board
San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, CA
94612

FIGURES

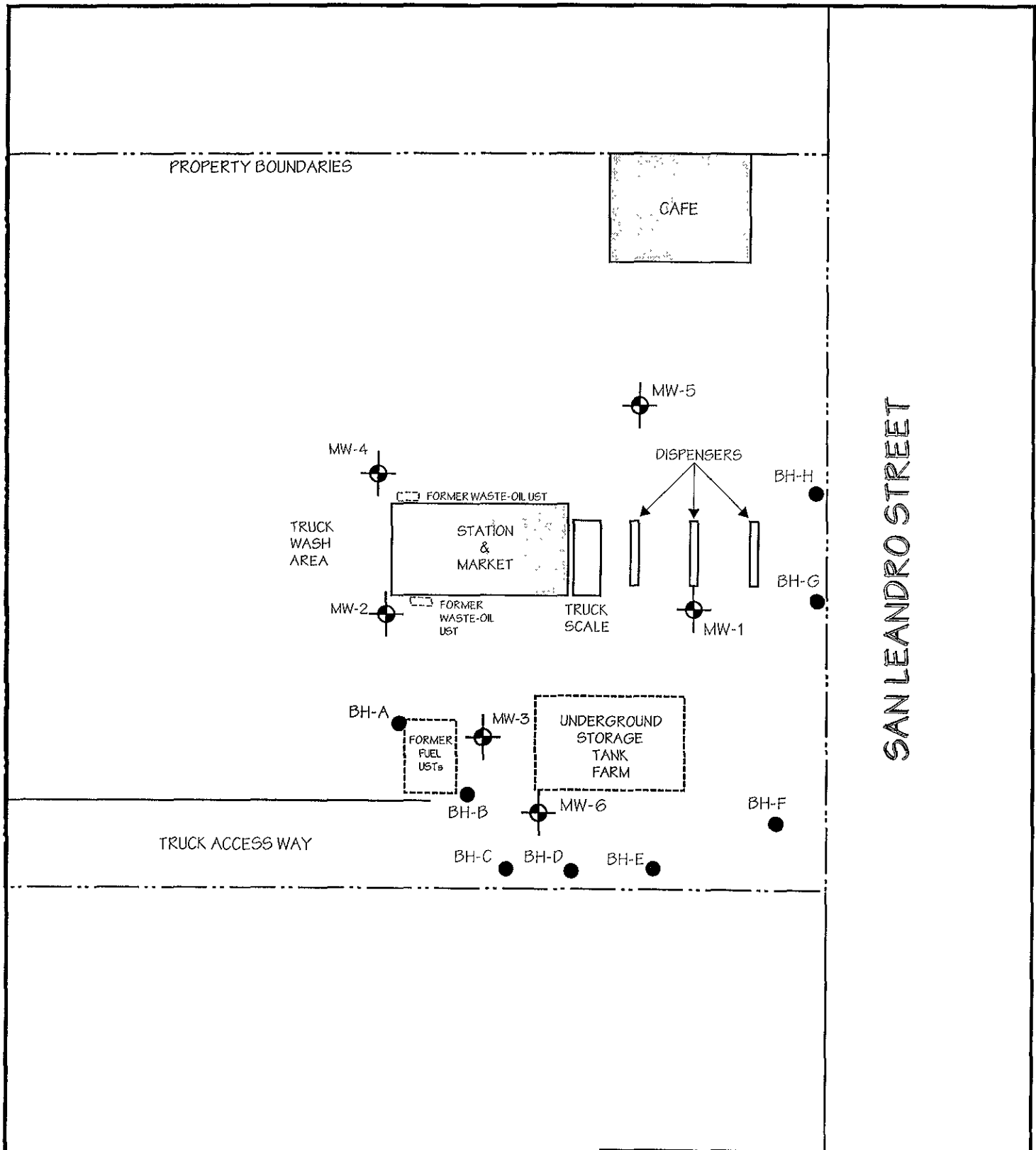


NORTH





LOCATION MAP

OAKLAND TRUCK STOP
8255 SAN LEANDRO STREET
OAKLAND, CALIFORNIA



LEGEND

- MW-4
 MONITORING WELL
- BH-A
 SOIL BORING


 NORTH
 SCALE
 1" = 50'

BORING LOCATION MAP

OAKLAND TRUCK STOP
 8255 SAN LEANDRO STREET
 OAKLAND, CALIFORNIA

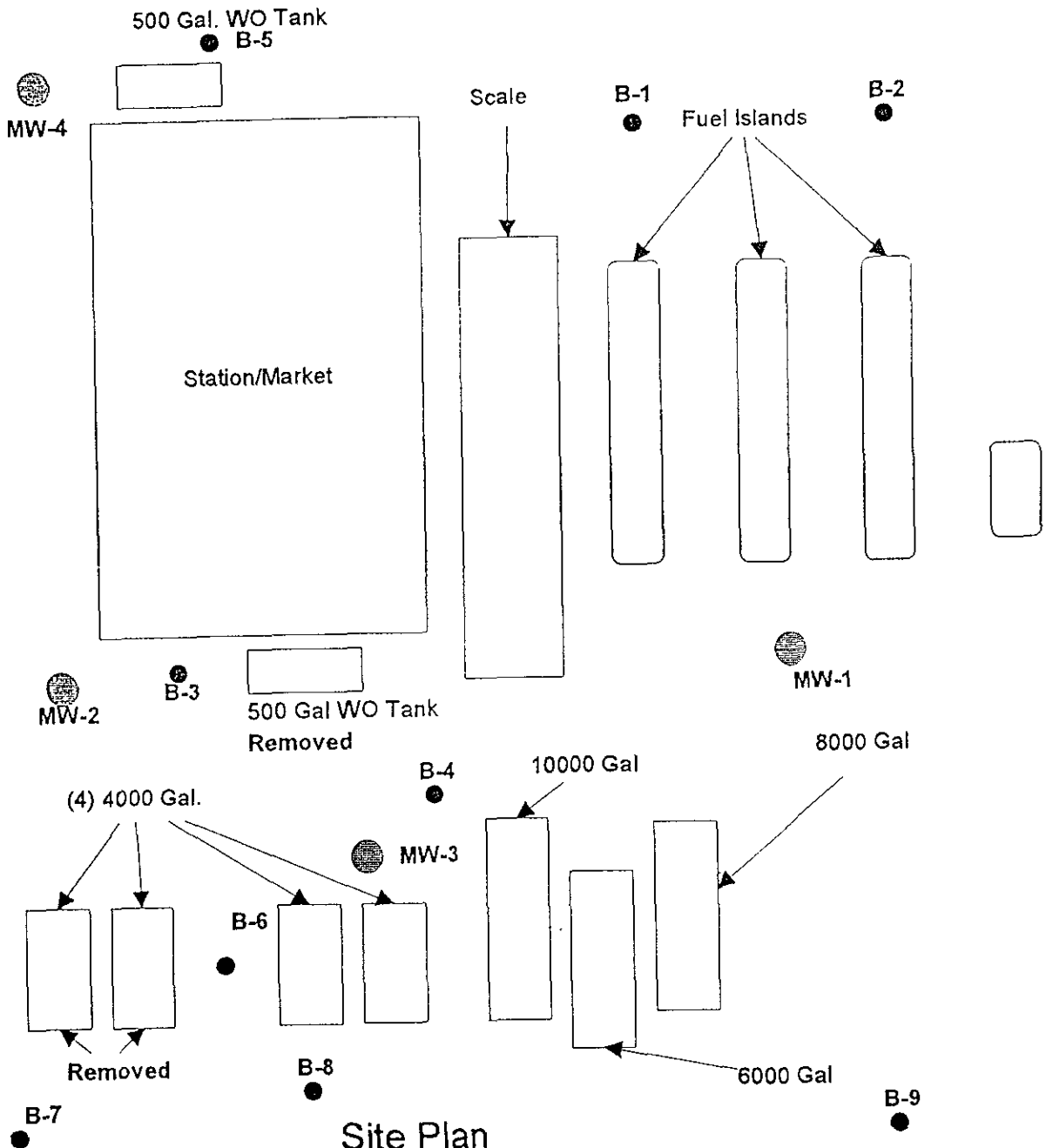
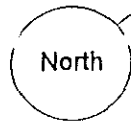
AQUA SCIENCE ENGINEERS, INC.

Figure 3

FIGURE 2

● - Boring Location

● - Monitoring Well



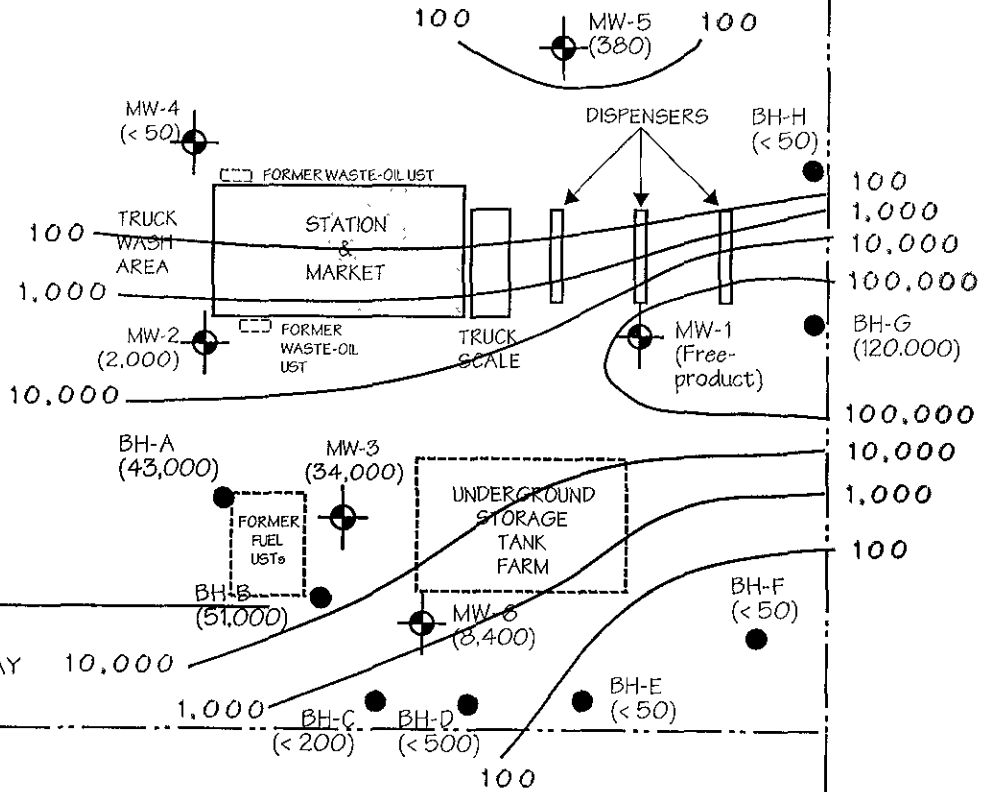
Site Plan

8255 San Leandro St., Oakland CA



PROPERTY BOUNDARIES

CAFE



SAN LEANDRO STREET

LEGEND

MW-2 (2,000)



MONITORING WELL WITH JUNE 2000 TPH-G CONCENTRATION IN PARTS PER BILLION

BH-A (43,000)



SOIL BORING WITH TPH-G CONCENTRATION IN PARTS PER BILLION

100

TPH-G CONCENTRATION CONTOUR



NORTH

SCALE
1" = 50'

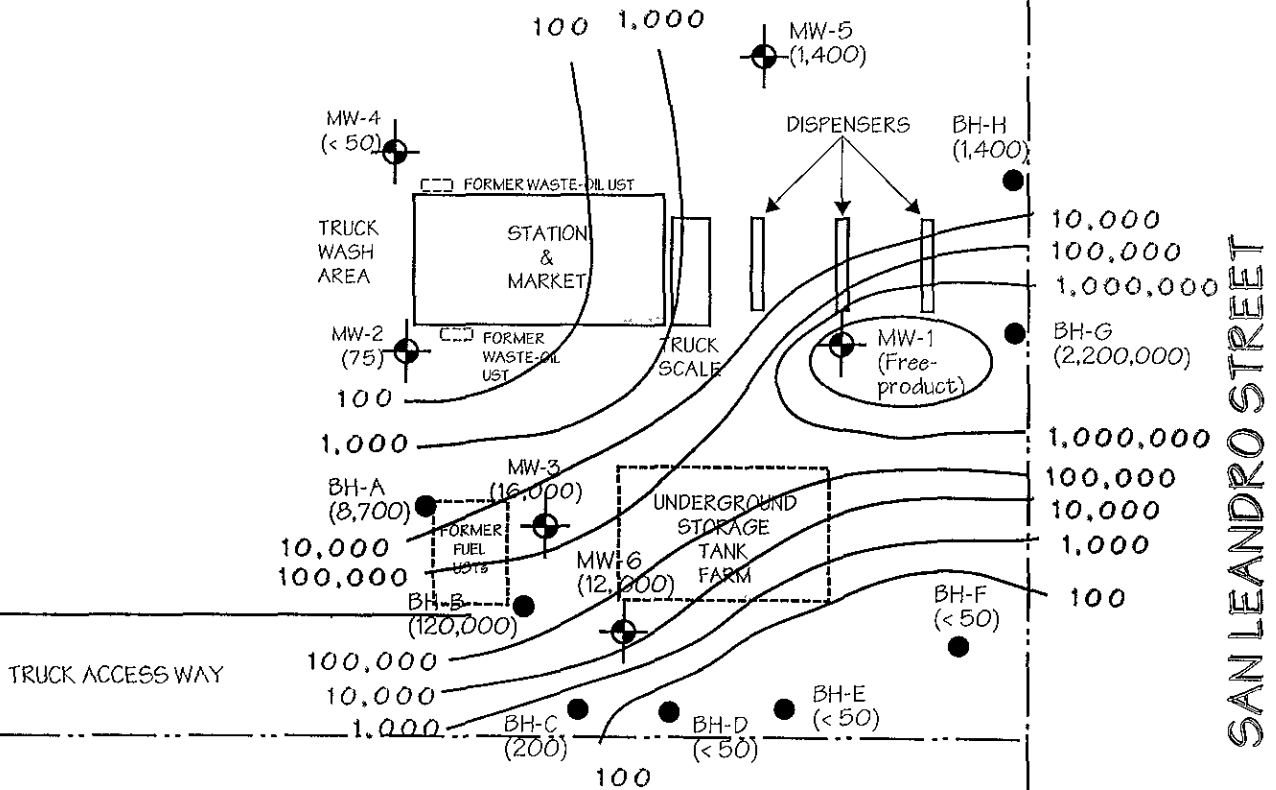
**TPH-G
ISOCONCENTRATION MAP**

OAKLAND TRUCK STOP
8255 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

Figure 4

PROPERTY BOUNDARIES



LEGEND

MW-2
(75)



MONITORING WELL WITH
JUNE 2000 TPH-D CONCENTRATION
IN PARTS PER BILLION

BH-A
(8,700)



SOIL BORING WITH TPH-D
CONCENTRATION IN PARTS PER BILLION

100
TPH-D CONCENTRATION CONTOUR



NORTH

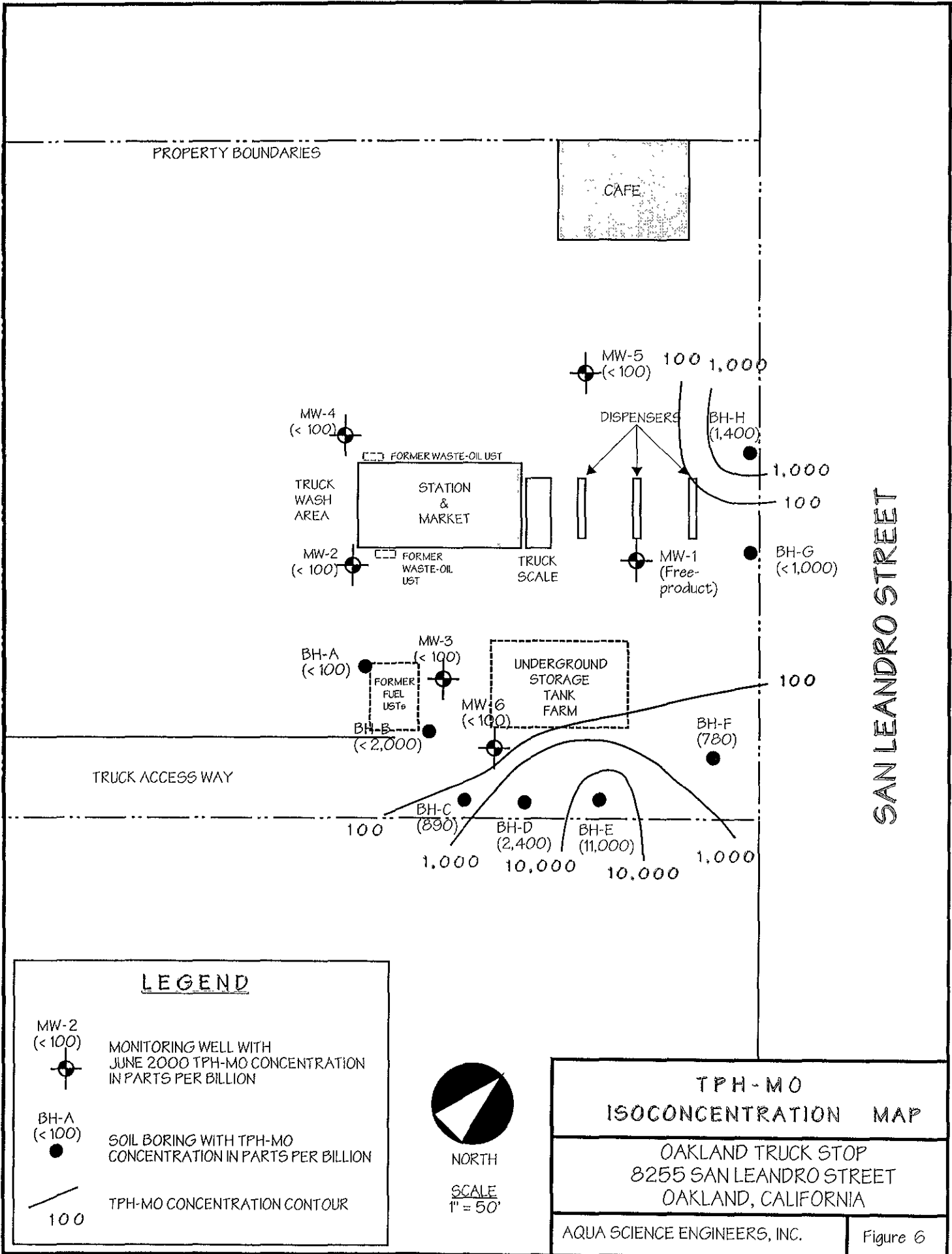
SCALE
1" = 50'

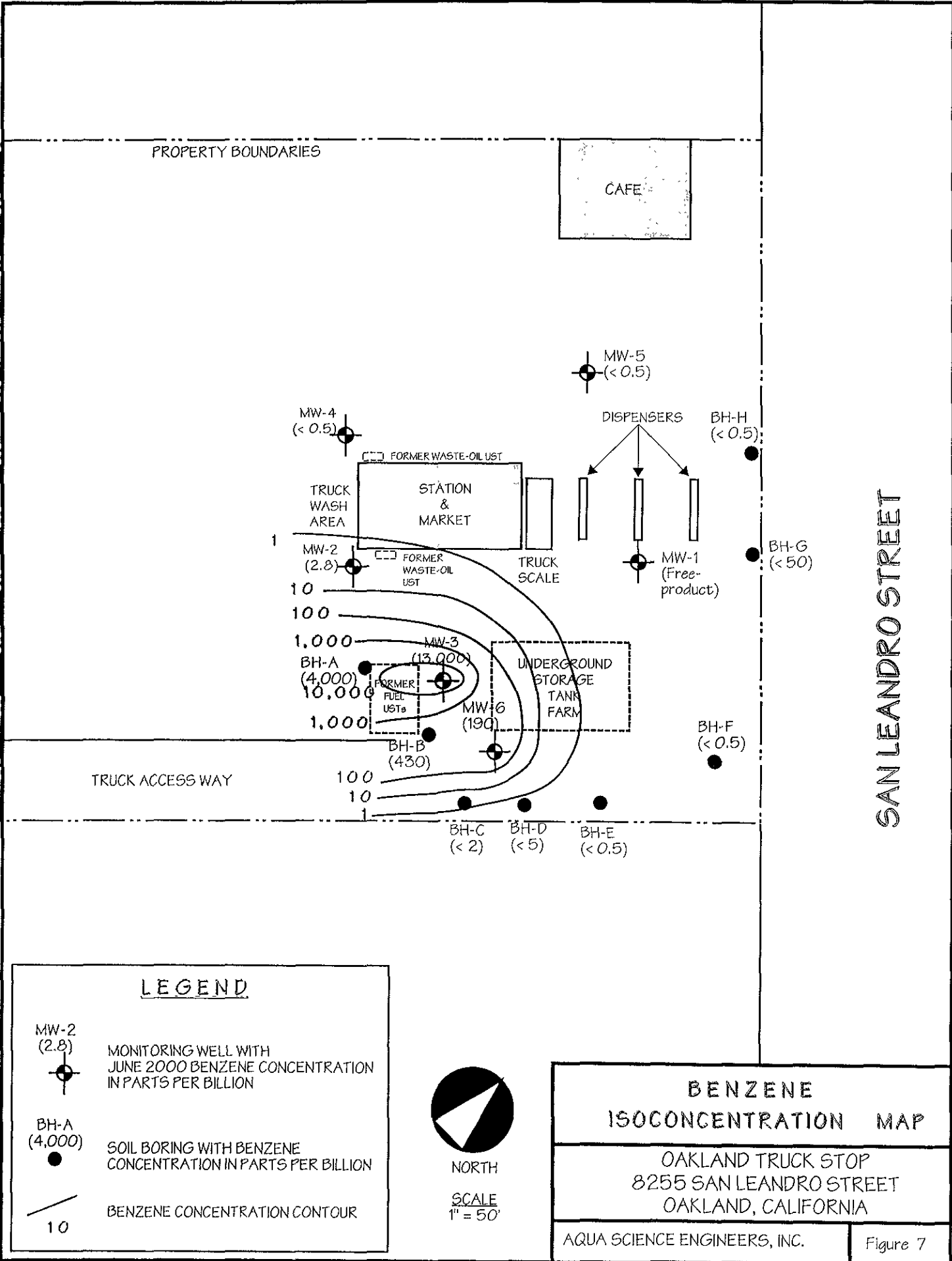
**TPH-D
ISOCONCENTRATION MAP**

OAKLAND TRUCK STOP
8255 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

Figure 5





PROPERTY BOUNDARIES

CAFE

MW-4
(< 0.5)

MW-5
(< 0.5)

BH-H
(< 0.5)

TRUCK WASH AREA
STATION & MARKET
FORMER WASTE-OIL UST
FORMER WASTE-OIL UST

DISPENSERS

MW-1
(Free-product)

BH-G
(< 50)

MW-2
(2.8)

TRUCK SCALE

10
100
1,000
10,000

UNDERGROUND STORAGE TANK FARM

BH-A
(4,000)

MW-3
(13,000)

FORMER FUEL USTs

MW-6
(190)

BH-F
(< 0.5)

BH-B
(430)

TRUCK ACCESS WAY

100
10
1

BH-C
(< 2)

BH-D
(< 5)

BH-E
(< 0.5)

SAN LEANDRO STREET

LEGEND

MW-2
(2.8)
MONITORING WELL WITH JUNE 2000 BENZENE CONCENTRATION IN PARTS PER BILLION

BH-A
(4,000)
SOIL BORING WITH BENZENE CONCENTRATION IN PARTS PER BILLION

10
BENZENE CONCENTRATION CONTOUR



NORTH

SCALE
1" = 50'

BENZENE ISOCONCENTRATION MAP

OAKLAND TRUCK STOP
8255 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

Figure 7

TABLES

TABLE ONE
Summary of Chemical Analysis of GROUNDWATER Samples
Petroleum Hydrocarbons
All results are in parts per billion

Boring	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
<u>MW-1</u>								
8-16-99		Not Sampled Due to Free-Floating Hydrocarbons						
12-06-99		Not Sampled Due to Free-Floating Hydrocarbons						
3-08-00		Not Sampled Due to Free-Floating Hydrocarbons						
6-14-00		Not Sampled Due to Free-Floating Hydrocarbons						
<u>MW-2</u>								
8-16-99	2,200	970*	< 500	3.8	< 2.0	3.0	< 4.0	< 20
12-06-99	1,900	400*	< 500	16	< 0.5	1.5	< 0.5	5.2
3-08-00	1,600*	530*	< 500	9.7	< 0.5	2.7	< 0.5	27
6-14-00	2,000	75	< 100	2.8	< 0.5	3.4	< 0.5	16
<u>MW-3</u>								
8-16-99	56,000	10,000**	< 500	17,000	2,600	2,600	1,200	6,100
12-06-99	40,000	9,100*	< 500	16,000	140	1,800	100	2,200/ 4,000#
3-08-00	22,000	4,500*	< 500	11,000	72	1,100	130	3,400
6-14-00	34,000	16,000	< 100	13,000	94	1,300	160	4,800
<u>MW-4</u>								
8-16-99	61***	1,100*	< 500	< 0.5	< 0.5	< 0.5	< 1.0	86
12-06-99	130***	220*	< 500	< 1.0	< 1.0	< 1.0	< 1.0	130
3-08-00	< 50	220*	< 500	< 0.5	< 0.5	< 0.5	< 0.5	130
6-14-00	< 50	< 50	< 100	< 0.5	< 0.5	< 0.5	< 0.5	100
<u>MW-5</u>								
12-06-99	450***	2,000*	< 500	< 1.0	< 1.0	< 1.0	< 1.0	21
3-08-00	51***	530*	< 500	< 0.5	< 0.5	< 0.5	< 0.5	84
6-14-00	380	1,400	< 100	< 0.5	< 0.5	< 0.5	< 0.5	160

TABLE ONE
Summary of Chemical Analysis of GROUNDWATER Samples
Petroleum Hydrocarbons
All results are in parts per billion

Boring	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
<u>MW-6</u>								
12-06-99	13,000	< 50	< 500	180	21	11	24	< 100
3-08-00	10,000	4,600*	< 500	230	26	18	39	12,000
6-14-00	15,000	12,000	< 100	190	12	9.5	22	15,000
DHS MCL	NE	NE	NE	1.0	150	700	1,750	13

Notes:

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

Detectable concentrations are in **bold**.

DHS MCL is the California Department of Health Services maximum contaminant level for drinking water.

NE = DHS MCLs are not established.

* = Non-typical diesel pattern, hydrocarbons in early diesel range.

** = Estimated concentration due to overlapping fuel patterns in the sample.

*** = Non-typical gasoline pattern.

= MTBE concentration by EPA Method 8260

TABLE TWO
Summary of Chemical Analysis of GROUNDWATER Samples
HVOCs, SVOCs, PCBs and LUFT 5 Metals
All results are in parts per billion

Boring	Isopropyl- benzene	Other VOCs	SVOCs	PCBs	Cd	Cr	Pb	Ni	Zn
<u>MW-2</u>									
8-16-99	11	ND	ND	ND	< 2.0	9.0	< 5.0	19	< 10
<u>MW-4</u>									
8-16-99	< 0.5	ND	ND	ND	2.7	45	260	55	320
12-06-99	---	---	---	---	---	---	< 5	---	---
MCL	NE	Various	Various	0.5	5	50	15	100	5,000

Notes:

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit or are indicated by ND if various detection limits are used for multiple compounds. Please see the original reports for detection limits for these compounds.

Detectable concentrations are in **bold**.

MCL is the California Department of Health Services maximum contaminant level for drinking water.

NE = Not established

TABLE THREE
Summary of Analysis of SOIL Samples
TPH-G, TPH-D, BTEX
All results are in parts per million

Boring	Depth (Feet)	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes
BH-A	7.5'	370	670	< 200	2.3	0.16	4.7	1.1
	11.5'	210	130	< 10	1.3	0.52	3.7	1.5
BH-B	7.5'	4.4	2.5	2.4	0.040	< 0.0050	< 0.0050	< 0.0050
	11.5'	190	120	< 10	0.048	0.030	0.37	0.020
BH-C	11.5'	< 1.0	< 1.0	< 10	< 0.0050	< 0.0050	< 0.0050	< 0.0050
BH-D	11.5'	< 1.0	< 1.0	< 10	< 0.0050	< 0.0050	< 0.0050	< 0.0050
BH-E	11.5'	< 1.0	< 1.0	1.4	< 0.0050	< 0.0050	< 0.0050	< 0.0050
BH-F	11.5'	< 1.0	< 1.0	< 10	< 0.0050	< 0.0050	< 0.0050	< 0.0050
BH-G	12'	270	1,500	< 10	< 0.020	0.028	< 0.020	< 0.020
BH-H	8'	150	1,100	< 10	0.029	0.024	< 0.020	< 0.020
	12'	3.0	320	< 10	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PRG		NE	NE	NE	0.62	520	230	210

Notes:

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

Detectable concentrations are in **bold**.

PRG is the United States Environmental Protection Agency preliminary remediation goal for residential soil.

NE = No PRG is established.

TABLE FOUR
Summary of Analysis of SOIL Samples
Oxygenates
All results are in parts per million

Boring	Depth (Feet)	MTBE	DIPE	ETBE	TAME	TBA
BH-A	7.5'	< 0.050	< 0.050	< 0.050	< 0.050	< 0.50
	11.5'	< 0.020	< 0.020	< 0.020	< 0.020	< 0.20
BH-B	7.5'	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.012
	11.5'	0.41	< 0.020	< 0.020	< 0.020	< 0.20
BH-C	11.5'	1.0	< 0.0050	< 0.0050	0.025	0.49
BH-D	11.5'	1.7	< 0.0050	< 0.0050	0.024	0.57
BH-E	11.5	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
BH-F	11.5'	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
BH-G	12'	0.050	< 0.020	< 0.020	< 0.020	< 0.20
BH-H	8'	0.060	< 0.020	< 0.020	< 0.020	< 0.20
	12'	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.020

Notes:

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

Detectable concentrations are in **bold**.

TABLE FIVE
Summary of Analysis of WATER Samples
TPH-G, TPH-D, BTEX
All results are in **parts per billion**

Boring	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes
BH-A	43,000	8,700	< 100	4,000	400	2,200	3,100
BH-B	51,000	120,000	< 2,000	430	< 10	700	19
BH-C	< 200	200	890	< 2.0	< 2.0	< 2.0	< 2.0
BH-D	< 500	< 50	2,400	< 5.0	< 5.0	< 5.0	< 5.0
BH-E	< 50	< 50	11,000	< 0.50	< 0.50	< 0.50	< 0.50
BH-F	< 50	< 50	780	< 0.50	< 0.50	< 0.50	< 0.50
BH-G	120,000	2,200,000	< 1,000	< 50	< 50	< 50	< 50
BH-H	< 50	1,400	1,400	< 0.50	< 0.50	< 0.50	< 0.50
MCL		NE	NE	1.0	150	700	1,750

Notes:

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

Detectable concentrations are in **bold**.

MCL is the California Department of Health Services maximum contaminant level for drinking water.

NE = No MCL is established.

TABLE SIX
Summary of Analysis of WATER Samples
Oxygenates
All results are in parts per billion

Boring	MTBE	DIPE	ETBE	TAME	TBA
BH-A	46	< 20	< 20	< 20	< 200
BH-B	6,200	< 10	< 10	37	1,000
BH-C	13,000	< 2.0	< 2.0	100	2,600
BH-D	42,000	< 5.0	< 5.0	250	6,800
BH-E	6.0	< 0.50	< 0.50	< 0.50	< 5.0
BH-F	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0
BH-G	170	< 50	< 50	< 50	< 500
BH-H	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0
PRG	13	NE	NE	NE	NE

Notes:

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

Detectable concentrations are in **bold**.

MCL is the California Department of Health Services maximum contaminant level for drinking water.

NE = No MCL is established.

APPENDIX A

Boring Logs


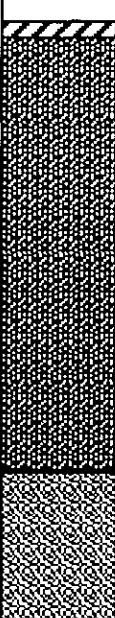
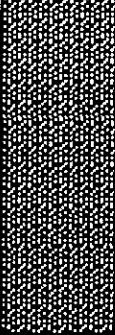
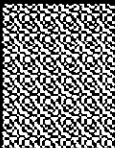




SOIL BORING LOG AND WELL COMPLETION DETAILS	Soil Boring: BH-A
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Project Name: Oakland Truck Stop	Project Location: 8255 San Leandro Street, Oakland, CA	Page 1 of 1
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Driller: V&W Drilling	Type of Rig: Geoprobe	Size of Drill: Macro Core Sampler
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Logged By: Robert E. Kitay, R.G.	Date Drilled: May 31, 2000	Checked By: Robert E. Kitay, R.G. <i>rk</i>
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WATER AND WELL DATA	Total Depth of Well Completed: NA
Depth of Water First Encountered: 12'	Well Screen Type and Diameter: NA
Static Depth of Water in Well: Unknown	Well Screen Slot Size: NA
Total Depth of Boring: 16'	Type and Size of Soil Sampler: Macro Core Sampler

Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Water Level	OVM (ppmv)	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0		Class "H" Portland Cement	X				0	Asphalt
5			X		365		5	Silty CLAY (CH); black; stiff; dry; 90% clay; 10% silt; medium plasticity; very low estimated K; slight hydrocarbon odor moderate hydrocarbon odor
10			X	▼	507		10	strong hydrocarbon odor Sandy SILT (ML); olive; medium stiff; wet; 85-90% silt; 10-15% fine sand; non-plastic; low estimated K; strong hydrocarbon odor
15			X		3022		15	End of boring at 16'
20			X				20	
25			X				25	
30			X				30	

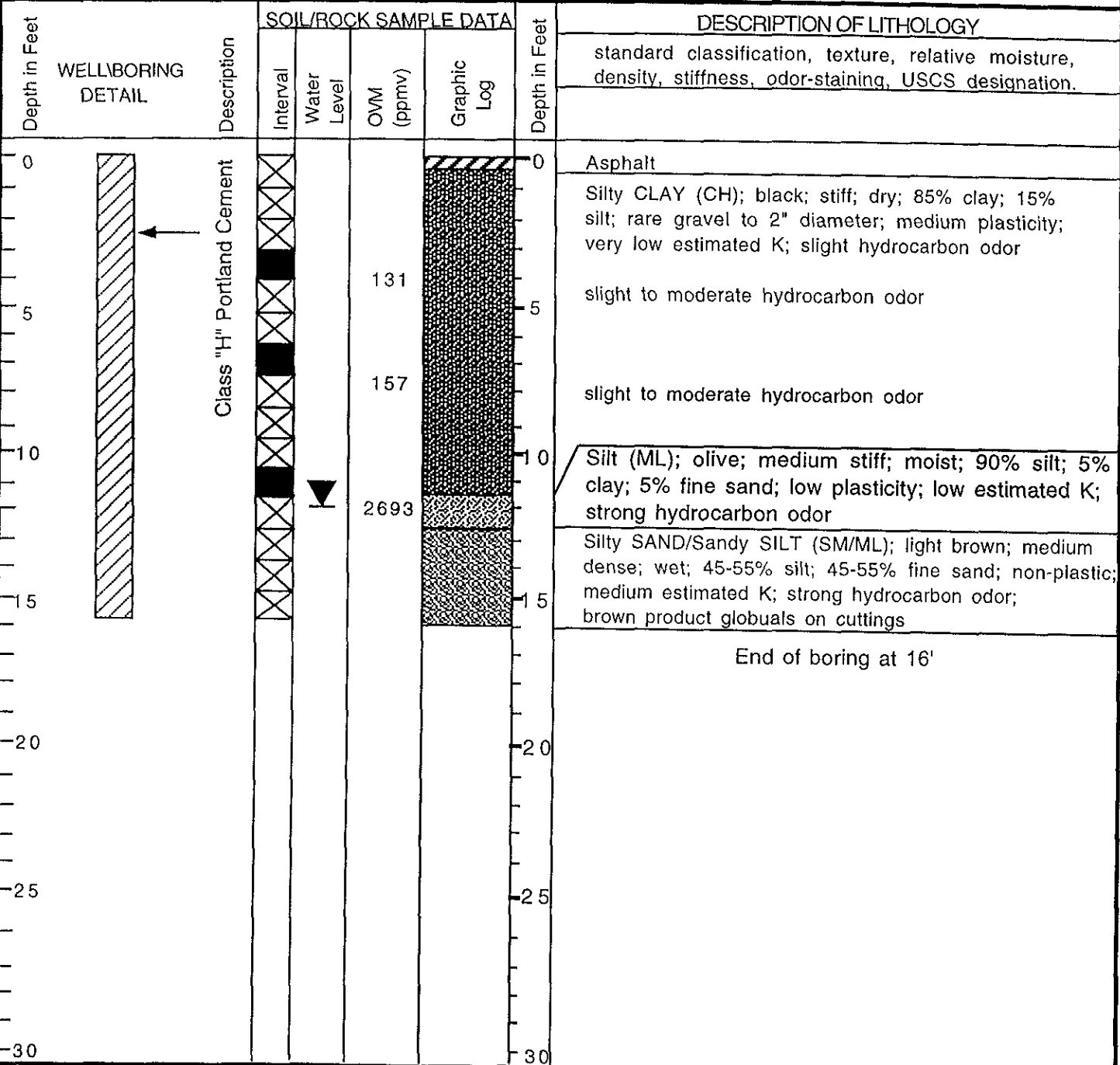
SOIL BORING LOG AND WELL COMPLETION DETAILS	Soil Boring: BH-B
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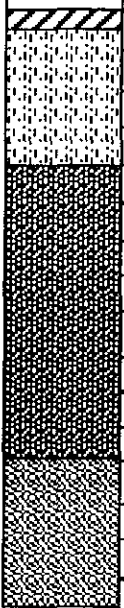
Project Name: Oakland Truck Stop	Project Location: 8255 San Leandro Street, Oakland, CA	Page 1 of 1
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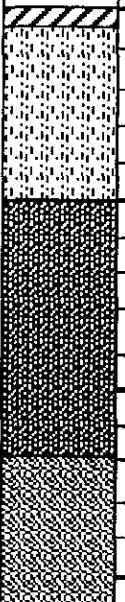
Driller: V&W Drilling	Type of Rig: Geoprobe	Size of Drill: Macro Core Sampler
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Logged By: Robert E. Kitay, R.G.	Date Drilled: May 31, 2000	Checked By: Robert E. Kitay, R.G. <i>RK</i>
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WATER AND WELL DATA	Total Depth of Well Completed: NA
Depth of Water First Encountered: 12'	Well Screen Type and Diameter: NA
Static Depth of Water in Well: Unknown	Well Screen Slot Size: NA
Total Depth of Boring: 16'	Type and Size of Soil Sampler: Macro Core Sampler



SOIL BORING LOG AND WELL COMPLETION DETAILS					Soil Boring: BH-C			
Project Name: Oakland Truck Stop			Project Location: 8255 San Leandro Street, Oakland, CA		Page 1 of 1			
Driller: V&W Drilling			Type of Rig: Geoprobe		Size of Drill: Macro Core Sampler			
Logged By: Robert E. Kitay, R.G.			Date Drilled: May 31, 2000		Checked By: Robert E. Kitay, R.G. <i>RK</i>			
WATER AND WELL DATA					Total Depth of Well Completed: NA			
Depth of Water First Encountered: 12'					Well Screen Type and Diameter: NA			
Static Depth of Water in Well: Unknown					Well Screen Slot Size: NA			
Total Depth of Boring: 16'					Type and Size of Soil Sampler: Macro Core Sampler			
Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Water Level	OMV (ppmv)	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0		Class "H" Portland Cement	0 - 1.5		0		0	Asphalt
5			1.5 - 4.5		0		4.5	Silty SAND (SM); orange; loose; dry; 60% fine to coarse sand; 35% silt; 5% gravel to 1" diameter; non-plastic; high estimated K; no odor
10			4.5 - 11.5		0		11.5	Silty CLAY (CH); black; stiff; dry; 90% clay; 10% silt; medium plasticity; very low estimated K; slight hydrocarbon odor
15			11.5 - 15		198		15	Sandy SILT (ML); light yellow brown; medium stiff; wet; 75-80% silt; 20-25% fine sand; non-plastic; low to medium estimated K; slight to moderate hydrocarbon odor
20					20	End of boring at 16'		
25					25			
30					30			

SOIL BORING LOG AND WELL COMPLETION DETAILS				Soil Boring: BH-D					
Project Name: Oakland Truck Stop		Project Location: 8255 San Leandro Street, Oakland, CA		Page 1 of 1					
Driller: V&W Drilling		Type of Rig: Geoprobe		Size of Drill: Macro Core Sampler					
Logged By: Robert E. Kitay, R.G.		Date Drilled: May 31, 2000		Checked By: Robert E. Kitay, R.G. <i>RC</i>					
WATER AND WELL DATA				Total Depth of Well Completed: NA					
Depth of Water First Encountered: 12'				Well Screen Type and Diameter: NA					
Static Depth of Water in Well: Unknown				Well Screen Slot Size: NA					
Total Depth of Boring: 16'				Type and Size of Soil Sampler: Macro Core Sampler					
Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY	
			Interval	Water Level	OMV (ppmv)	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.	
0		Class "H" Portland Cement	0 - 7.8		7.8		0	0 - 1.5	Asphalt
5			1.5 - 5		0		5	1.5 - 5	Silty SAND (SM); orange; loose; dry; 50% fine to coarse sand; 30% silt; 20% gravel to 1" diameter; non-plastic; high estimated K; no odor
10			5 - 11		0		10	5 - 11	Silty CLAY (CH); black; stiff; dry; 90% clay; 10% silt; medium plasticity; very low estimated K; slight hydrocarbon odor
15			11 - 16		3.6		15	11 - 16	Sandy SILT (ML); light yellow brown; medium stiff; wet; 75-80% silt; 20-25% fine sand; non-plastic; low to medium estimated K; slight hydrocarbon odor
20							20	End of boring at 16'	
25							25		
30							30		

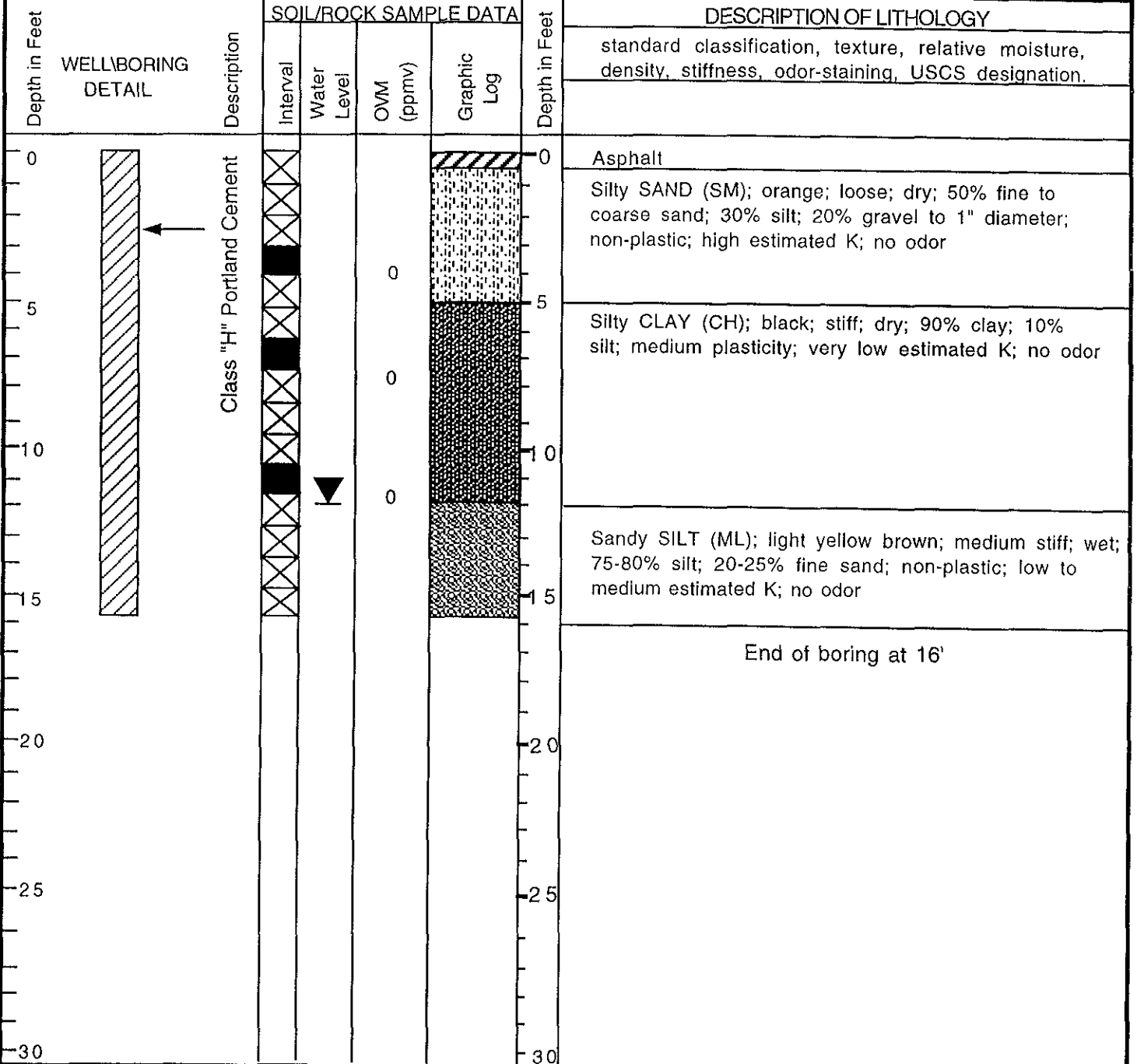
SOIL BORING LOG AND WELL COMPLETION DETAILS	Soil Boring: BH-E
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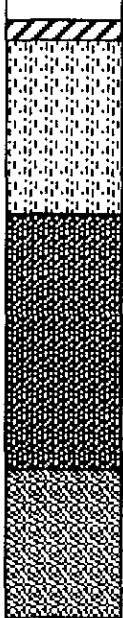
Project Name: Oakland Truck Stop	Project Location: 8255 San Leandro Street, Oakland, CA	Page 1 of 1
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Driller: V&W Drilling	Type of Rig: Geoprobe	Size of Drill: Macro Core Sampler
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Logged By: Robert E. Kitay, R.G.	Date Drilled: May 31, 2000	Checked By: Robert E. Kitay, R.G. <i>R.K.</i>
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WATER AND WELL DATA	Total Depth of Well Completed: NA
Depth of Water First Encountered: 12'	Well Screen Type and Diameter: NA
Static Depth of Water in Well: Unknown	Well Screen Slot Size: NA
Total Depth of Boring: 16'	Type and Size of Soil Sampler: Macro Core Sampler



SOIL BORING LOG AND WELL COMPLETION DETAILS				Soil Boring: BH-F				
Project Name: Oakland Truck Stop		Project Location: 8255 San Leandro Street, Oakland, CA		Page 1 of 1				
Driller: V&W Drilling		Type of Rig: Geoprobe		Size of Drill: Macro Core Sampler				
Logged By: Robert E. Kitay, R.G.		Date Drilled: May 31, 2000		Checked By: Robert E. Kitay, R.G. <i>RK</i>				
WATER AND WELL DATA				Total Depth of Well Completed: NA				
Depth of Water First Encountered: 12'				Well Screen Type and Diameter: NA				
Static Depth of Water in Well: Unknown				Well Screen Slot Size: NA				
Total Depth of Boring: 16'				Type and Size of Soil Sampler: Macro Core Sampler				
Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Water Level	OMV (ppmv)	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0		Class "H" Portland Cement	X		0		0	Asphalt
5			0				5	Silty SAND (SM); orange; loose; dry; 50% fine to coarse sand; 30% silt; 20% gravel to 1" diameter; non-plastic; high estimated K; no odor
10			0				10	Silty CLAY (CH); black; stiff; dry; 90% clay; 10% silt; medium plasticity; very low estimated K; no odor
15			0				15	Sandy SILT (ML); light yellow brown; medium stiff; wet; 75-80% silt; 20-25% fine sand; non-plastic; low to medium estimated K; no odor
20						20	End of boring at 16'	
25						25		
30						30		


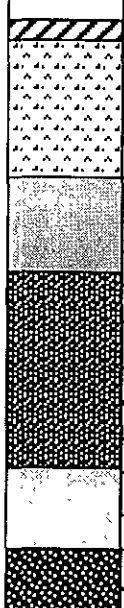
SOIL BORING LOG AND WELL COMPLETION DETAILS	Soil Boring: BH-G
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Project Name: Oakland Truck Stop	Project Location: 8255 San Leandro Street, Oakland, CA	Page 1 of 1
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Driller: V&W Drilling	Type of Rig: Geoprobe	Size of Drill: Macro Core Sampler
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Logged By: Ian Reed	Date Drilled: June 1, 2000	Checked By: Robert E. Kitay, R.G. <i>RK</i>
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WATER AND WELL DATA	Total Depth of Well Completed: NA
Depth of Water First Encountered: 12'	Well Screen Type and Diameter: NA
Static Depth of Water in Well: Unknown	Well Screen Slot Size: NA
Total Depth of Boring: 16'	Type and Size of Soil Sampler: Macro Core Sampler

Depth in Feet	WELL BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Water Level	OMV (ppmv)	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0		Class "H" Portland Cement	X				0	Asphalt
5			53				5	Gravelly SILT (ML); grey to brown; medium stiff; moist; 60% silt; 30% gravel to 0.5" diameter; 10% fine to coarse sand; non-plastic; medium estimated K; slight hydrocarbon odor
10			29				10	SAND (SW); grey to black, medium dense; wet; 100% fine to coarse sand; non-plastic; high estimated K; moderate hydrocarbon odor
15			1033	▼			15	Silty CLAY (CL); black; very stiff; moist; 70% clay; 30% silt; low plasticity; low estimated K; slight hydrocarbon odor
20							20	SAND (SW); grey to black; loose; wet; 100% fine sand; non-plastic; high estimated K; strong hydrocarbon odor
25							25	Silty CLAY (CL); black; very stiff; moist; 80% clay; 20% silt; low plasticity; low estimated K; slight hydrocarbon odor
30					30	End of boring at 16'		

SOIL BORING LOG AND WELL COMPLETION DETAILS

Soil Boring: BH-H

Project Name: Oakland Truck Stop

Project Location: 8255 San Leandro Street, Oakland, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Geoprobe

Size of Drill: Macro Core Sampler

Logged By: Ian Reed

Date Drilled: June 1, 2000

Checked By: Robert E. Kitay, R.G. *RK*

WATER AND WELL DATA

Depth of Water First Encountered: 12'

Total Depth of Well Completed: NA

Well Screen Type and Diameter: NA

Static Depth of Water in Well: Unknown

Well Screen Slot Size: NA

Total Depth of Boring: 16'

Type and Size of Soil Sampler: Macro Core Sampler

Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Water Level	OMV (ppmv)	Graphic Log		
0		Class "H" Portland Cement	0 - 46	12'	46		0	Asphalt
5			48		5		Sandy SILT (ML); brown to black; stiff; moist; 60% silt; 30% fine to coarse sand; 10% clay; low plasticity; low estimated K; slight hydrocarbon odor	
10			141		10		Silty CLAY (CL); black; stiff; damp; 70% clay; 30% silt; low plasticity; low estimated K; slight hydrocarbon odor	
15			146		15		Sandy SILT (ML); light brown; medium stiff; wet; 60% silt; 40% fine sand; non-plastic; medium estimated K; no odor	
16						16	End of boring at 16'	
20						20		
25						25		
30						30		

APPENDIX B

Analytical Report and Chain of Custody Forms
For Soil and Groundwater Samples



Report Number : 16816

Date : 06/12/2000

Robert Kitay
Aqua Science Engineers, Inc.
208 West El Pintado Rd.
Danville, CA 94526

Subject : 8 Water Samples and 24 Soil Samples
Project Name : Oakland Truck Stop (OTS)
Project Number : 3540

Dear Mr. Kitay,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)


Project Number : 3540

Sample : BH-A 7-5'

Matrix : Soil

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	2.3	0.050	mg/Kg	EPA 8260B	06/12/2000
Toluene	0.16	0.050	mg/Kg	EPA 8260B	06/12/2000
Ethylbenzene	4.7	0.050	mg/Kg	EPA 8260B	06/12/2000
Total Xylenes	1.1	0.050	mg/Kg	EPA 8260B	06/12/2000
TPH as Gasoline	370	5.0	mg/Kg	EPA 8260B	06/12/2000
TPH as Diesel	670	20	mg/Kg	M EPA 8015	06/11/2000
TPH as Motor Oil	< 200	200	mg/Kg	M EPA 8015	06/11/2000
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	mg/Kg	EPA 8260B	06/12/2000
Diisopropyl ether (DIPE)	< 0.050	0.050	mg/Kg	EPA 8260B	06/12/2000
Ethyl-t-butyl ether (ETBE)	< 0.050	0.050	mg/Kg	EPA 8260B	06/12/2000
Tert-amyl methyl ether (TAME)	< 0.050	0.050	mg/Kg	EPA 8260B	06/12/2000
Tert-Butanol	< 0.50	0.50	mg/Kg	EPA 8260B	06/12/2000
Toluene - d8 (Surr)	95.2		% Recovery	EPA 8260B	06/12/2000
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	06/12/2000
1-Chlorooctadecane (Diesel Surrogate)	149		% Recovery	M EPA 8015	06/11/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-A 11-5'

Matrix : Soil

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.3	0.020	mg/Kg	EPA 8260B	06/07/2000
Toluene	0.52	0.020	mg/Kg	EPA 8260B	06/07/2000
Ethylbenzene	3.7	0.020	mg/Kg	EPA 8260B	06/07/2000
Total Xylenes	15	0.020	mg/Kg	EPA 8260B	06/07/2000
TPH as Gasoline	210	5.0	mg/Kg	EPA 8260B	06/07/2000
TPH as Diesel	130	1.0	mg/Kg	M EPA 8015	06/12/2000
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	06/12/2000
Methyl-t-butyl ether (MTBE)	< 0.020	0.020	mg/Kg	EPA 8260B	06/07/2000
Diisopropyl ether (DIPE)	< 0.020	0.020	mg/Kg	EPA 8260B	06/07/2000
Ethyl-t-butyl ether (ETBE)	< 0.020	0.020	mg/Kg	EPA 8260B	06/07/2000
Tert-amyl methyl ether (TAME)	< 0.020	0.020	mg/Kg	EPA 8260B	06/07/2000
Tert-Butanol	< 0.20	0.20	mg/Kg	EPA 8260B	06/07/2000
Toluene - d8 (Surr)	95.0		% Recovery	EPA 8260B	06/07/2000
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	06/07/2000
1-Chlorooctadecane (Diesel Surrogate)	107		% Recovery	M EPA 8015	06/12/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-B 7-5'

Matrix : Soil

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.040	0.0050	mg/Kg	EPA 8260B	06/08/2000
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
TPH as Gasoline	4.4	1.0	mg/Kg	EPA 8260B	06/08/2000
TPH as Diesel	2.5	1.0	mg/Kg	M EPA 8015	06/11/2000
TPH as Motor Oil	24	10	mg/Kg	M EPA 8015	06/11/2000
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Tert-Butanol	0.012	0.0050	mg/Kg	EPA 8260B	06/08/2000
Toluene - d8 (Surr)	81.3		% Recovery	EPA 8260B	06/08/2000
4-Bromofluorobenzene (Surr)	97.4		% Recovery	EPA 8260B	06/08/2000
1-Chlorooctadecane (Diesel Surrogate)	114		% Recovery	M EPA 8015	06/11/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-B 11-5'

Matrix : Soil

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.048	0.020	mg/Kg	EPA 8260B	06/09/2000
Toluene	0.030	0.020	mg/Kg	EPA 8260B	06/09/2000
Ethylbenzene	0.37	0.020	mg/Kg	EPA 8260B	06/09/2000
Total Xylenes	0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
TPH as Gasoline	190	5.0	mg/Kg	EPA 8260B	06/09/2000
TPH as Diesel	120	1.0	mg/Kg	M EPA 8015	06/12/2000
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	06/12/2000
Methyl-t-butyl ether (MTBE)	0.41	0.020	mg/Kg	EPA 8260B	06/09/2000
Diisopropyl ether (DIPE)	< 0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
Ethyl-t-butyl ether (ETBE)	< 0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
Tert-amyl methyl ether (TAME)	< 0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
Tert-Butanol	< 0.20	0.20	mg/Kg	EPA 8260B	06/09/2000
Toluene - d8 (Surr)	95.6		% Recovery	EPA 8260B	06/09/2000
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	06/09/2000
1-Chlorooctadecane (Diesel Surrogate)	111		% Recovery	M EPA 8015	06/12/2000

Approved By:  Joe Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-C 11-5'

Matrix : Soil

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	06/07/2000
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	06/11/2000
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	06/11/2000
Methyl-t-butyl ether (MTBE)	1.0	0.020	mg/Kg	EPA 8260B	06/08/2000
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Tert-amyl methyl ether (TAME)	0.025	0.0050	mg/Kg	EPA 8260B	06/07/2000
Tert-Butanol	0.49	0.20	mg/Kg	EPA 8260B	06/08/2000
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	06/07/2000
4-Bromofluorobenzene (Surr)	96.6		% Recovery	EPA 8260B	06/07/2000
1-Chlorooctadecane (Diesel Surrogate)	107		% Recovery	M EPA 8015	06/11/2000

Approved By: Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

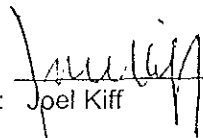
Project Number : 3540

Sample : BH-D 11-5'

Matrix : Soil

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	06/07/2000
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	06/11/2000
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	06/11/2000
Methyl-t-butyl ether (MTBE)	1.7	0.020	mg/Kg	EPA 8260B	06/08/2000
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Tert-amyl methyl ether (TAME)	0.024	0.0050	mg/Kg	EPA 8260B	06/07/2000
Tert-Butanol	0.57	0.20	mg/Kg	EPA 8260B	06/08/2000
Toluene - d8 (Surr)	98.9		% Recovery	EPA 8260B	06/07/2000
4-Bromofluorobenzene (Surr)	95.2		% Recovery	EPA 8260B	06/07/2000
1-Chlorooctadecane (Diesel Surrogate)	108		% Recovery	M EPA 8015	06/11/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-E 11-5'

Matrix : Soil

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	06/08/2000
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	06/11/2000
TPH as Motor Oil	14	10	mg/Kg	M EPA 8015	06/11/2000
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/08/2000
Toluene - d8 (Surr)	98.5		% Recovery	EPA 8260B	06/08/2000
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	06/08/2000
1-Chlorooctadecane (Diesel Surrogate)	104		% Recovery	M EPA 8015	06/11/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : **Oakland Truck Stop (OTS)**

Project Number : **3540**

Sample : BH-F 11-5'

Matrix : Soil

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	06/07/2000
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	06/11/2000
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	06/11/2000
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/07/2000
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	06/07/2000
4-Bromofluorobenzene (Surr)	96.0		% Recovery	EPA 8260B	06/07/2000
1-Chlorooctadecane (Diesel Surrogate)	110		% Recovery	M EPA 8015	06/11/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : **Oakland Truck Stop (OTS)**

Project Number : **3540**

Sample : **BH-G-12'**

Matrix : Soil

Sample Date :06/01/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
Toluene	0.028	0.020	mg/Kg	EPA 8260B	06/09/2000
Ethylbenzene	< 0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
Total Xylenes	< 0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
TPH as Gasoline	270	5.0	mg/Kg	EPA 8260B	06/09/2000
TPH as Diesel	1500	1.0	mg/Kg	M EPA 8015	06/12/2000
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	06/12/2000
Methyl-t-butyl ether (MTBE)	0.050	0.020	mg/Kg	EPA 8260B	06/09/2000
Diisopropyl ether (DIPE)	< 0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
Ethyl-t-butyl ether (ETBE)	< 0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
Tert-amyl methyl ether (TAME)	< 0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
Tert-Butanol	< 0.20	0.20	mg/Kg	EPA 8260B	06/09/2000
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	06/09/2000
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	06/09/2000
1-Chlorooctadecane (Diesel Surrogate)	148		% Recovery	M EPA 8015	06/12/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-H-8

Matrix : Soil

Sample Date :06/01/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.029	0.020	mg/Kg	EPA 8260B	06/10/2000
Toluene	0.024	0.020	mg/Kg	EPA 8260B	06/10/2000
Ethylbenzene	< 0.020	0.020	mg/Kg	EPA 8260B	06/10/2000
Total Xylenes	< 0.020	0.020	mg/Kg	EPA 8260B	06/10/2000
TPH as Gasoline	150	5.0	mg/Kg	EPA 8260B	06/10/2000
TPH as Diesel	1100	1.0	mg/Kg	M EPA 8015	06/11/2000
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	06/11/2000
Methyl-t-butyl ether (MTBE)	0.060	0.020	mg/Kg	EPA 8260B	06/10/2000
Diisopropyl ether (DIPE)	< 0.020	0.020	mg/Kg	EPA 8260B	06/10/2000
Ethyl-t-butyl ether (ETBE)	< 0.020	0.020	mg/Kg	EPA 8260B	06/10/2000
Tert-amyl methyl ether (TAME)	< 0.020	0.020	mg/Kg	EPA 8260B	06/10/2000
Tert-Butanol	< 0.20	0.20	mg/Kg	EPA 8260B	06/10/2000
Toluene - d8 (Surr)	97.8		% Recovery	EPA 8260B	06/10/2000
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	06/10/2000
1-Chlorooctadecane (Diesel Surrogate)	144		% Recovery	M EPA 8015	06/11/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-H-12'

Matrix : Soil

Sample Date :06/01/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/09/2000
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/09/2000
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/09/2000
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/09/2000
TPH as Gasoline	3.0	1.0	mg/Kg	EPA 8260B	06/12/2000
TPH as Diesel	320	1.0	mg/Kg	M EPA 8015	06/11/2000
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	06/11/2000
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/09/2000
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/09/2000
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/09/2000
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	06/09/2000
Tert-Butanol	< 0.020	0.020	mg/Kg	EPA 8260B	06/09/2000
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	06/09/2000
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	06/09/2000
1-Chlorooctadecane (Diesel Surrogate)	114		% Recovery	M EPA 8015	06/11/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-A

Matrix : Water

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	4000	20	ug/L	EPA 8260B	06/07/2000
Toluene	400	20	ug/L	EPA 8260B	06/07/2000
Ethylbenzene	2200	20	ug/L	EPA 8260B	06/07/2000
Total Xylenes	3100	20	ug/L	EPA 8260B	06/07/2000
TPH as Gasoline	43000	2000	ug/L	EPA 8260B	06/07/2000
TPH as Diesel	8700	50	ug/L	M EPA 8015	06/07/2000
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	06/07/2000
Methyl-t-butyl ether (MTBE)	46	20	ug/L	EPA 8260B	06/09/2000
Diisopropyl ether (DIPE)	< 20	20	ug/L	EPA 8260B	06/07/2000
Ethyl-t-butyl ether (ETBE)	< 20	20	ug/L	EPA 8260B	06/07/2000
Tert-amyl methyl ether (TAME)	< 20	20	ug/L	EPA 8260B	06/07/2000
Tert-Butanol	< 200	200	ug/L	EPA 8260B	06/07/2000
Toluene - d8 (Surr)	97.6		% Recovery	EPA 8260B	06/07/2000
4-Bromofluorobenzene (Surr)	95.3		% Recovery	EPA 8260B	06/07/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-B

Matrix : Water

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	430	10	ug/L	EPA 8260B	06/10/2000
Toluene	< 10	10	ug/L	EPA 8260B	06/10/2000
Ethylbenzene	700	10	ug/L	EPA 8260B	06/10/2000
Total Xylenes	19	10	ug/L	EPA 8260B	06/10/2000
TPH as Gasoline	51000	1000	ug/L	EPA 8260B	06/10/2000
TPH as Diesel	120000	1000	ug/L	M EPA 8015	06/09/2000
TPH as Motor Oil	< 2000	2000	ug/L	M EPA 8015	06/09/2000
Methyl-t-butyl ether (MTBE)	6200	10	ug/L	EPA 8260B	06/10/2000
Diisopropyl ether (DIPE)	< 10	10	ug/L	EPA 8260B	06/10/2000
Ethyl-t-butyl ether (ETBE)	< 10	10	ug/L	EPA 8260B	06/10/2000
Tert-amyl methyl ether (TAME)	37	10	ug/L	EPA 8260B	06/10/2000
Tert-Butanol	1000	100	ug/L	EPA 8260B	06/10/2000
Toluene - d8 (Surr)	93.0		% Recovery	EPA 8260B	06/10/2000
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	06/10/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)


Project Number : 3540

Sample : BH-C

Matrix : Water

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 2.0	2.0	ug/L	EPA 8260B	06/07/2000
Toluene	< 2.0	2.0	ug/L	EPA 8260B	06/07/2000
Ethylbenzene	< 2.0	2.0	ug/L	EPA 8260B	06/07/2000
Total Xylenes	< 2.0	2.0	ug/L	EPA 8260B	06/07/2000
TPH as Gasoline	< 200	200	ug/L	EPA 8260B	06/07/2000
TPH as Diesel	200	50	ug/L	M EPA 8015	06/09/2000
TPH as Motor Oil	890	100	ug/L	M EPA 8015	06/09/2000
Methyl-t-butyl ether (MTBE)	13000	50	ug/L	EPA 8260B	06/09/2000
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	06/07/2000
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	06/07/2000
Tert-amyl methyl ether (TAME)	100	2.0	ug/L	EPA 8260B	06/07/2000
Tert-Butanol	2600	100	ug/L	EPA 8260B	06/08/2000
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	06/07/2000
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	06/07/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-D

Matrix : Water

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 5.0	5.0	ug/L	EPA 8260B	06/07/2000
Toluene	< 5.0	5.0	ug/L	EPA 8260B	06/07/2000
Ethylbenzene	< 5.0	5.0	ug/L	EPA 8260B	06/07/2000
Total Xylenes	< 5.0	5.0	ug/L	EPA 8260B	06/07/2000
TPH as Gasoline	< 500	500	ug/L	EPA 8260B	06/07/2000
TPH as Diesel	< 50	50	ug/L	M EPA 8015	06/07/2000
TPH as Motor Oil	2400	100	ug/L	M EPA 8015	06/07/2000
Methyl-t-butyl ether (MTBE)	42000	200	ug/L	EPA 8260B	06/09/2000
Diisopropyl ether (DIPE)	< 5.0	5.0	ug/L	EPA 8260B	06/07/2000
Ethyl-t-butyl ether (ETBE)	< 5.0	5.0	ug/L	EPA 8260B	06/07/2000
Tert-amyl methyl ether (TAME)	250	5.0	ug/L	EPA 8260B	06/07/2000
Tert-Butanol	6800	500	ug/L	EPA 8260B	06/08/2000
Toluene - d8 (Surr)	98.3		% Recovery	EPA 8260B	06/07/2000
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	06/07/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : **Oakland Truck Stop (OTS)**


Project Number : **3540**

Sample : BH-E

Matrix : Water

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/07/2000
TPH as Diesel	< 50	50	ug/L	M EPA 8015	06/07/2000
TPH as Motor Oil	11000	100	ug/L	M EPA 8015	06/07/2000
Methyl-t-butyl ether (MTBE)	6.0	0.50	ug/L	EPA 8260B	06/07/2000
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	06/07/2000
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	06/07/2000
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	06/07/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-F

Matrix : Water

Sample Date :05/31/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/08/2000
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/08/2000
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/08/2000
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/08/2000
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/08/2000
TPH as Diesel	< 50	50	ug/L	M EPA 8015	06/09/2000
TPH as Motor Oil	780	100	ug/L	M EPA 8015	06/09/2000
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	06/08/2000
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	06/08/2000
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	06/08/2000
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	06/08/2000
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	06/08/2000
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	06/08/2000
4-Bromofluorobenzene (Surr)	99.2		% Recovery	EPA 8260B	06/08/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-G

Matrix : Water

Sample Date :06/01/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 50	50	ug/L	EPA 8260B	06/07/2000
Toluene	< 50	50	ug/L	EPA 8260B	06/07/2000
Ethylbenzene	< 50	50	ug/L	EPA 8260B	06/07/2000
Total Xylenes	< 50	50	ug/L	EPA 8260B	06/07/2000
TPH as Gasoline	120000	5000	ug/L	EPA 8260B	06/10/2000
TPH as Diesel	2200000	500	ug/L	M EPA 8015	06/08/2000
TPH as Motor Oil	< 1000	1000	ug/L	M EPA 8015	06/08/2000
Methyl-t-butyl ether (MTBE)	170	50	ug/L	EPA 8260B	06/10/2000
Diisopropyl ether (DIPE)	< 50	50	ug/L	EPA 8260B	06/07/2000
Ethyl-t-butyl ether (ETBE)	< 50	50	ug/L	EPA 8260B	06/07/2000
Tert-amyl methyl ether (TAME)	< 50	50	ug/L	EPA 8260B	06/07/2000
Tert-Butanol	< 500	500	ug/L	EPA 8260B	06/07/2000
Toluene - d8 (Surr)	98.6		% Recovery	EPA 8260B	06/07/2000
4-Bromofluorobenzene (Surr)	97.4		% Recovery	EPA 8260B	06/07/2000

Approved By:  Joel Kiff



Report Number : 16816

Date : 06/12/2000

Project Name : Oakland Truck Stop (OTS)

Project Number : 3540

Sample : BH-H

Matrix : Water

Sample Date :06/01/2000

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/07/2000
TPH as Diesel	1400	50	ug/L	M EPA 8015	06/08/2000
TPH as Motor Oil	1400	100	ug/L	M EPA 8015	06/08/2000
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	06/07/2000
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	06/07/2000
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	06/07/2000
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	06/07/2000

Approved By:  Joel Kiff

16816

Aqua Science Engineers, Inc.
 208 W. El Pintado Road
 Danville, CA 94526
 (925) 820-9391
 FAX (925) 837-4853

Chain of Custody

SAMPLER (SIGNATURE) Robert E. Kitey (PHONE NO.) (925) 820-9391 PROJECT NAME Oakland Truck Stop (OTS) JOB NO. 3540
 ADDRESS 8255 San Leandro St., Oakland, CA DATE 6-1-00

ANALYSIS REQUEST					TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-GASOLINE (EPA 5030/8015)	TPH-DIESEL + Motor oil (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	PURGEABLE AROMATICS (EPA 602/8020)	VOLATILE ORGANICS (EPA 624/8240)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140) (EPA 608/8080)	ORGANOCHLORINE HERBICIDES (EPA 8150)	FUEL OXYGENATES (EPA 8260)	TPH-G/DTBK/5 ^{analyzed} by EPA 8260	HOLD	COMPOSITE		
SPECIAL INSTRUCTIONS:	SAMPLE ID.	DATE	TIME	MATRIX																		NO. OF SAMPLES	
	BH-A 3.5'	5/31	9:35	Soil	1																		
	BH-A 7.5'		9:42				X												X				
	BH-A 11.5'		9:55				X												X				
	BH-B 3.5'		11:00																	X			
	BH-B 7.5'		11:08				X												X				
	BH-B 11.5'		11:15				X												X				
	BH-C 3.5'		14:50																		X		
	BH-C 7.5'		14:57																		X		
	BH-C 11.5'		15:05				X												X				
	BH-D 3.5'		17:50																		X		
	BH-D 7.5'		13:55																		X		

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RELINQUISHED BY: <u>Robert E. Kitey</u> 14:36 (signature) (time)	RECEIVED BY: _____ (signature) (time)	RELINQUISHED BY: _____ (signature) (time)	RECEIVED BY LABORATORY: <u>A. A. Goss</u> 14:36 (signature) (time)	COMMENTS: <u>5-DAY T.A.T.</u>
<u>Robert E. Kitey</u> 6-1-00 (printed name) (date)	_____ (printed name) (date)	_____ (printed name) (date)	<u>A. A. Goss</u> 6/1/00 (printed name) (date)	
Company- <u>ASE</u>	Company-	Company-	Company- <u>K. El</u>	

16816

Aqua Science Engineers, Inc.
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 (925) 820-9391
 FAX (925) 837-4853

Chain of Custody

PAGE 2 OF 3

SAMPLER (SIGNATURE) Robert E. Kistner (PHONE NO.) (925) 820-9391

PROJECT NAME Oakland Truck Stop (OTS) JOB NO. 3540
 ADDRESS 8255 San Leandro St., Oakland, CA DATE 6-1-00

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-GASOLINE (EPA 5030/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	PURGEABLE AROMATICS (EPA 602/8020)	VOLATILE ORGANICS (EPA 624/8240)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140) (EPA 608/8080)	ORGANOCHLORINE HERBICIDES (EPA 8150)	FUEL OXYGENATES (EPA 8260)	TPH-6/BTEX/5 oxygenates by EPA 8260	HOLD	COMPOSITE	
BH-D 11.5'	5/31	14:00	Soil	1			X												X			
BH-E 3.5'		12:10																			X	
BH-E 7.5'		12:12																			X	
BH-E 11.5'		12:26					X												X			
BH-F 3.5'		15:56																			X	
BH-F 7.5'		16:00																			X	
BH-F 11.5'		16:04					X												X			
BH-A		10:30	Water	6			X												X			
BH-B		11:33					X												X			
BH-C		15:30					X												X			
BH-D		14:16					X												X			

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RELINQUISHED BY:
Robert E. Kistner 14:36
 (signature) (time)
Robert E. Kistner 6-1-00
 (printed name) (date)
 Company- ASE

RECEIVED BY:

 (signature) (time)

 (printed name) (date)
 Company- _____

RELINQUISHED BY:

 (signature) (time)

 (printed name) (date)
 Company- _____

RECEIVED BY LABORATORY:
Andrews Agos 14:36
 (signature) (time)
Andrews Agos 6/1/00
 (printed name) (date)
 Company- Will

COMMENTS:
5-DAY T.A.I.T.

16816

Aqua Science Engineers, Inc.
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 Danville, CA 94526
 (925) 820-9391
 FAX (925) 837-4853

Chain of Custody

PAGE 3 OF 3

SAMPLER (SIGNATURE) Robert E. Kitey (PHONE NO.) (925) 820-9391

PROJECT NAME Oakland Truck Stop (OTS) JOB NO. 3540
 ADDRESS 8255 San Leandro St, Oakland, CA DATE 6-1-00

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-GASOLINE (EPA 5030/8015)	TPH-DIESEL + Motor Oil (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	PURGEABLE AROMATICS (EPA 602/8020)	VOLATILE ORGANICS (EPA 624/8240)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LIFT METALS (5) (EPA 6010+7000)	CANNED METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140) (EPA 608/8080)	ORGANOCHLORINE HERBICIDES (EPA 8150)	FUEL OXYGENATES (EPA 8260)	TPH-G/BTEX/5 analytes by EPA 8260	HOLD	COMPOSITE	
																						BH-E
BH-F	↓	16:26	↓	↓			X													X		
BH-G	6/1	0822	water	6			X													X		
BH-H	6/1	0930	water	6			X													X		
BH-G-12'	6/1	0820	Soil	1			X													X		
BH-H-12'	6/1	0910	Soil	1			X													X		
BH-G-4'	6/1	0800	Soil	1																	X	
BH-G-8'	6/1	0810	Soil	1																	X	
BH-H-4'	6/1	0845	Soil	1																	X	
BH-H-8'	6/1	0855	Soil	1			X													X		

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RELINQUISHED BY: <u>Robert E. Kitey</u> 14:36 (signature) (time)	RECEIVED BY: _____ (signature) (time)	RELINQUISHED BY: _____ (signature) (time)	RECEIVED BY LABORATORY: <u>A. Agbes</u> 14:36 (signature) (time)	COMMENTS: <u>5-DAY T.A.T.</u>
<u>Robert E. Kitey</u> 6-1-00 (printed name) (date)	_____ (printed name) (date)	_____ (printed name) (date)	<u>A. Agbes</u> 6/1/00 (printed name) (date)	
Company- <u>ASE</u>	Company-	Company-	Company- <u>Will</u>	

Ca 6644 165