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HAZMAT

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June 10, 1994

Mr. Robert Mibach
Peralta Community College District
333 East 8th Street
Oakland, CA 94606

RE: Additonal Field Investigation
Peralta Maintenance Yard, 501 5th Avenue, Oakland, California
Permit No. 94280

Dear Mr. Mibach:

The enclosed report describes the materials and procedures used during an additional field investigation performed at the Peralta Maintenance Yard, Oakland, California. ACC's investigative approach was to drill five borings and collect soil and groundwater samples from each boring. This work was performed to evaluate the lateral extent of soil and groundwater contamination.

Soil and grab groundwater samples collected during drilling were submitted to Chromalab, Inc. for petroleum hydrocarbon analyses, including Total Petroleum Hydrocarbons (TPH) as gasoline with Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX), and Total Extractable Petroleum Hydrocarbons (TEPH) as Kerosene, Diesel and Motor Oil.

The results of the chemical analysis of the soil samples indicated below detectable levels of Total Petroleum Hydrocarbons (TPH) as gasoline and Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX) and TEPH as kerosene from the borings. Samples from boring B-4 indicated below detectable levels of consistuents evaluated. Detectable levels of constituents were reported in samples collected from borings B-1, B-2, B-3, and B-5.

If you have any comments regarding this report, please call me.

Sincerely,

Misty C. Kaltreider

Misty C. Kaltreider
Geologist

cc: Mr. Thomas Peacock - Alameda County Health Care Services - Division of Hazardous Materials
Mr. Wyman Hong - Alameda County Flood Control and Water Conservation District, Zone 7

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ADDITIONAL SUBSURFACE INVESTIGATION

PERALTA COMMUNITY COLLEGE - MAINTENANCE YARD
501 5TH AVENUE
OAKLAND, CALIFORNIA, 94606

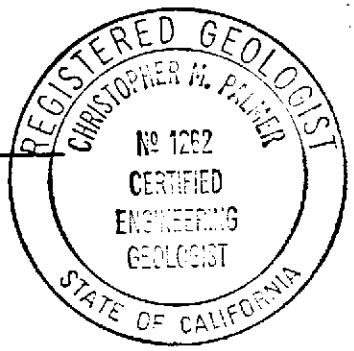
Prepared for:

Mr. Thomas Peacock
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Division of Hazardous Materials

June 1994

Prepared by: _____
Misty Kaltreider
Project Geologist

Reviewed by: _____
Christopher M. Palmer, CEG #1262
Certified Engineering Geologist



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1.0 INTRODUCTION

This report presents the procedures and findings of an additional soil and groundwater investigation conducted by ACC Environmental Consultants, Inc., ("ACC") on behalf of the Peralta Community College District, site owner at 501 5th Avenue, Oakland, California. The project objective, as described in the Work Plan prepared on April 29, 1994, was to drill five soil borings and collect soil and grab groundwater sample to evaluate the extent of soil and groundwater impact.

2.0 BACKGROUND

Five underground storage tanks were installed prior to the 1960's. The tanks were used for storage of fuel and waste oil for the City of Oakland Corporation Yard. The tanks consisted of two 6,000-gallon gasoline, one 2,000-gallon diesel, one 2,000-gallon ethyl (premium) gasoline and one 550-gallon waste oil tank. In 1980 Peralta Community College District acquired the property. The District abandoned the existing five underground tanks by filling with water and installed three fiberglass underground storage tanks. The new tanks consisted of two 6,000-gallon and one 4,000-gallon fiberglass tanks to store gasoline. The new tanks were installed approximately 150 feet from the original tanks.

In 1992, the five original underground storage tanks were removed. A total of eight soil samples and one grab groundwater sample was collected from the excavation. Laboratory analysis of the soil indicated up to 228 parts per million (ppm) of Total Petroleum Hydrocarbons (TPH) as diesel, 134 ppm to TPH as gasoline, 2,407 parts per billion (ppb) benzene, 4,617 ppb toluene, 7,170 ppb ethylbenzene, 6,147 ppb total xylenes and 5,477 ppm oil and grease. Laboratory analysis of the water collected in the excavation indicated 170 ppm TPH as diesel, 15 ppm TPH as gasoline, 286 ppb benzene, 698 ppb toluene, 300 ppb ethylbenzene, 808 ppb total xylenes and 284 ppm oil and grease.

In September 1992, a preliminary study was performed by Environ of Emeryville to evaluate the soil and groundwater conditions on the site and on neighboring sites. This study indicated that hydrocarbons constituents are regional.

In November of 1992, ACC performed a site assessment of the soil around the former tank excavation. Hydrocarbons as gasoline and motor oil were observed in the soil and groundwater collected from the borings. Laboratory analysis of the soil indicated up to 370 ppm of TPH as gasoline, 12 ppm TPH as diesel, 5,342 ppm motor oil, 76.94 ppm benzene, 73.9 ppm toluene, 30.4 ppm ethylbenzene, and 95.41 ppm xylenes.

In November 1994, 1993 three underground gasoline tanks were removed from the property. Soil samples collected from the excavation indicated up to 1.3 ppm TPH as gasoline, 190 ppb benzene, and 18 ppb toluene. Initial groundwater sample collected from the excavation indicated 27 ppm TPH as gasoline, 1,200 ppb benzene, 5,100 ppb toluene, 690 ppb ethylbenzene and 5,700 ppb xylenes.

Approximately 3,500 gallons of water was removed from the excavation. Subsequent groundwater sample was collected. Analysis of the second groundwater sample from the excavation indicated 0.21 ppm TPH as gasoline, and 14 ppb xylenes.

Due to the elevated levels reported in the soil and groundwater on-site, additional groundwater investigations are required from the regulatory agencies.

In February, 1994, four additional borings (MW-1, MW-2, MW-3 and MW-4) were drilled and converted into 2-inch monitoring wells, on-site. The monitoring wells were used to evaluate the extent of contamination from the two tank excavations.

Laboratory analysis of the groundwater samples collected from monitoring wells MW-1 and MW-4 (down gradient from the tank excavations) indicated below detectable levels of constituents evaluated. The groundwater results indicated a downgradient extent of groundwater contamination. Laboratory analysis of groundwater collected from monitoring wells MW-2 and MW-3 (upgradient of the former tank excavations) indicated detectable levels of constituents. Samples collected from borings MW-2 and MW-3 indicated detectable levels of TPH as diesel, TPH as gasoline with BTEX. Motor oil was reported in the soil from boring MW-2. However, the motor oil was not detected in the groundwater sample from monitoring well MW-2 and therefore motor oil does not appear to impact the groundwater. TPH as diesel was only detected in the soil from boring MW-2.

Per request of Alameda County Health Care Services Agency, an additional subsurface investigation was conducted to evaluate the extent of petroleum hydrocarbons on-site.

3.0 SITE DESCRIPTION

The site consists of several warehouse/office buildings surrounded by a fenced parking lot. The older tanks were situated within the fenced yard adjacent to the northern entrance, the newer tanks were situated near the southern entrance (Figure 2).

4.0 FIELD PROCEDURES

Borings B-1, B-2, B-3, B-4, and B-5 were drilled on May 9, 1994 using a B-53 mobile drill rig equipped with 6-inch outside diameter hollow-stem augers. Concurrent with drilling, subsurface soil samples were obtained with a Standard Penetrometer Sampler equipped with three six-inch long brass liners. The sampler and brass liners were pre-cleaned prior to use and between sample drives by washing them with a trisodium phosphate (TSP) and potable water solution, a potable water rinse, and distilled water rinse.

Soil samples were collected continuously to the groundwater level. Subsurface soil samples were obtained by continuously driving the sampler eighteen inches into undisturbed material.

An HNU photoionization detector (PID) was used during drilling and sampling procedures to detect field evidence of volatile hydrocarbon vapor in the soil.

Soil sample and drill cuttings were prescreened in the field for volatile organic compounds with a PID calibrated for Hexane. Upon removal from the sampler, each end of the brass liner was covered with Teflon tape and plastic caps, labeled, and stored in an ice-filled cooler to be transported under chain of custody to Chromalab, Inc., a Cal-EPA certified analytical laboratory.

A minimum of one soil sample was selected from each boring and submitted to ChromaLab for analysis. Samples from the borings were submitted for analysis for Total Petroleum Hydrocarbons (TPH) as gasoline by EPA test method 5030 and benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA test method 8020 and TEPH as diesel, Kerosene, and motor oil by EPA test method 8015-Modified. Copies of the analytical results and chain of custody forms are provided in Appendix A.

The soil cuttings and samples were logged by an ACC geologist during drilling operations. Soil cuttings are described in accordance with the Unified Soil Classification System. Lithologic logs of the borings and the Unified Soil Classification System are attached in Appendix A. Soil cuttings were stockpiled on-site and covered with Visqueen pending acceptance at an approved disposal facility.

4.1 Groundwater Sampling

Groundwater samples were collected from the open boreholes when groundwater was obtained. No groundwater was obtained in borings B-3 and B-4. Groundwater samples collected from borings B-1, B-2 and B-5 were obtained using designated disposable Teflon bailers. Two 40 ml VOA vials, without headspace, and two 1-liter amber jars were filled from the water collected from the borings.

The samples were preserved on ice and submitted to Chromalab Inc. under chain of custody protocol. Laboratory results with chain of custody forms are attached in Appendix B.

5.0 FINDINGS

5.1 Subsurface Conditions

During drilling and sampling activities, the site was observed to be covered with a baserock/asphalt cap except in the location of the former Physical Plant Building (borings B-2, B-3 and B-4). Below the cap, the subsurface soils consisted of approximately 3 to 6 feet of artificial fill material consisting of brown to black gravelly sand to silty sand with clay. Below the fill, black sandy clay to plastic clay with thin layering of peat (locally known as Bay Mud) was encountered to the depth investigated of 8 feet below the surface.

The Alameda County Flood Control and Water Conservation District, Geo-Hydrology and Groundwater - Quality Overview, 205 (j) Report, June 1988 describes the geological formation Bay Mud being of Quarternary age. The report notes this formation consists of unconsolidated dark plastic clay and silty clay rich in organic material. Locally it contains lenses and stringers of well-sorted silt and sand as well as peat and has a low permeability. The Bay Mud is water saturated however, it is not considered as a useable source of groundwater to wells because of its low permeability.

During drilling and sampling no field evidence of volatile organics (i.e. discoloration or odor) were observed soil from the borings. Soil samples collected in the Bay Mud indicated slight organic odor.

Groundwater was encountered at approximately 5 to 6 feet below ground surface (bgs) during drilling in borings B1, B2 and B5. Grab groundwater sampling was attempted in borings B-3 and B-4 by sampling for water through the open borehole after approximately one to two hour waiting period. No free groundwater was obtained within borings B-3 and B-4. Within borings B-3 and B-4, finer materials adjacent to the aquifer zone are believed to inhibit the movement of groundwater into the borehole. Groundwater on-site appears to be unconfined and the aquifer contact is indistinct.

5.2 Analytical Results - Soil

One to two soil samples were collected from each boring and submitted Chromalab for analysis of TPH as gasoline with BTEX and TEPH. Samples chosen for analysis were collected at the Fill material and Bay Mud interface and capillary fringe. Samples analysis results are summarized in Table 1. The analytical results with chain of custody form is attached in Appendix B.

TABLE 1 - Analytical Results - Soil

Boring Number	Depth (Feet)	TPH-g (ppm)	Diesel (ppm)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	Kerosene (ppm)	Motor Oil (ppm)
B-1	3	<1.0	6.8	<5.0	<5.0	<5.0	<5.0	<1.0	31
B-2	6	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	51
B-3	5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	24
B-3	6.5	<1.0	11	<5.0	<5.0	<5.0	<5.0	<1.0	43
B-4	5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<10.0
B-4	6.5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<10.0
B-5	5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	100
B-5	6.5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<10.0

Notes: ppm = Parts Per Million
ppb = Parts Per Billion
TPH-g = Total Petroleum Hydrocarbons as gasoline

5.3 Analytical Results - Groundwater

One groundwater sample each was collected from borings B-1, B-2 and B-5. The samples submitted to Chromalab for analysis for TPH as gasoline by EPA test method 5030 and BTEX by EPA test method 602 and Total Extractable Petroleum Hydrocarbons (TEPH) as Diesel, Motor Oil and Kerosene lead by EPA method 8015-Modified. Groundwater analysis results are summarized in Table 2. Copies of the analytical results are attached in Appendix B.

TABLE 2 - Analytical Results - Groundwater

Boring Number	TPH-g (ppb)	Diesel (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppm)	Kerosene (ppb)	Motor Oil (ppm)
B-1	61	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5
B-2	<50	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5
B-5	<50	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5

Notes: ppb = parts per billion
ppm = parts per million
TPH-g = Total Petroleum Hydrocarbons as gasoline

6.0 DISCUSSION

Previous groundwater study conducted in February 1994 indicated that the groundwater on-site flows in the westerly direction and detectable levels of TPH as gasoline were reported in monitoring wells upgradient of suspected sources.

This additional soil and groundwater investigation was conducted to evaluate possible upgradient sources on-site. The investigation included drilling five borings upgradient (east) of existing monitoring wells MW-2 and MW-3.

Soil encountered during drilling of the additional investigation were observed to be artificial fill material above Bay Mud Formational Material.

Laboratory analysis of the soil samples collected indicate detectable levels of diesel at 6.8 ppm in boring B-1 and 11 ppm in boring B-3. Detectable levels of motor oil were reported in soil analyzed in borings B-1, B-2, B-3, and B-5 up to 100 ppm (boring B-5). Below detectable levels of TPH as gasoline, BTEX and kerosene were reported in the soil samples analyzed.

Groundwater was encountered approximately 5 to 6 feet bgs. Free groundwater was not encountered within borings where the approximate aquifer zone was adjacent to finer fill material or Bay Mud (borings B-3 and B-4).

Laboratory analysis of the groundwater samples collected indicated below detectable levels of diesel, kerosene, motor oil and BTEX. Grab groundwater from boring B-2 indicated 61 parts per billion of TPH as gasoline. Below detectable levels of TPH as gasoline were reported in grab groundwater sample from borings B-1 and B-5.

Motor oil was not detected in the groundwater samples collected from the borings, therefore motor oil does not appear to currently impact the groundwater. TPH as diesel was only detected in the soil from boring MW-2.

Results of the analytical data indicate that upgradient sources of TPH and motor oil exist. Finer fill material and Bay Mud appear to restrict the mobility of the contaminates from impacting groundwater. However, groundwater flow direction suggest that contaminant movement is to the westerly direction, toward the upgradient monitoring wells.

7.0 CONCLUSIONS

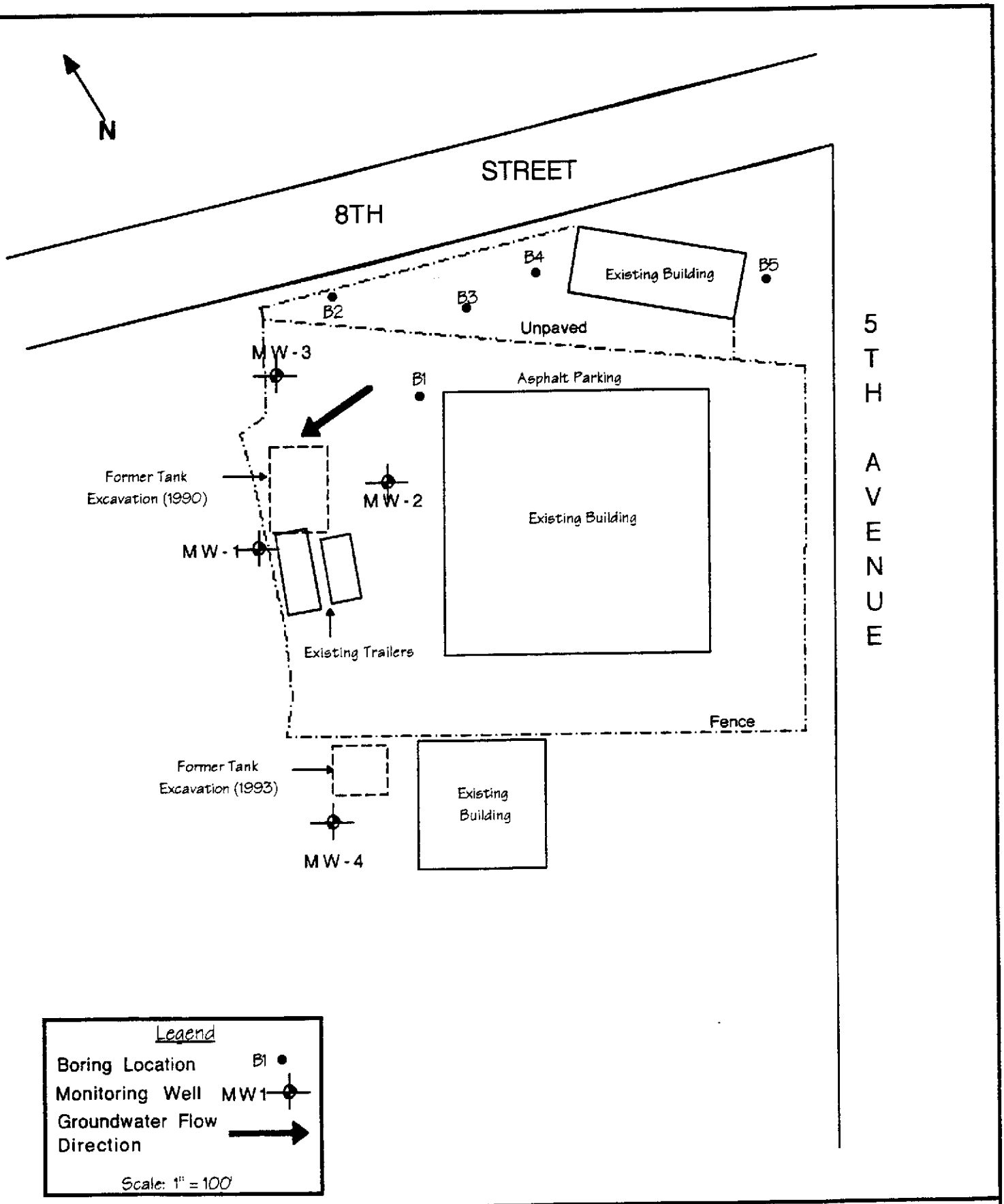
During an additional subsurface investigation, laboratory analysis of soil samples indicated detectable levels of TPH as diesel and motor oil. Below detectable levels of TPH as gasoline, BTEX and kerosene were reported in the soil samples analyzed.

Grab groundwater samples were collected from three of the five borings investigated. Laboratory analysis of the groundwater indicated detectable levels of TPH as gasoline. No detectable levels of diesel, kerosene, motor oil and BTEX were reported in the groundwater samples collected.

The results of the previous groundwater investigation conducted in February 1994 and the additional subsurface investigation indicates that upgradient source(s) of contaminants exists. However, are restricted in mobility due to fine grain sediments.

8.0 RECOMMENDATIONS

The existing monitoring wells on-site should be monitored to evaluate chemical trends from upgradient sources.



05/26/1994	Drawn By: MCK	Project: 6045-10	Figure 1: **Site Plan** Peralta Maintainance Yard, Oakland, CA

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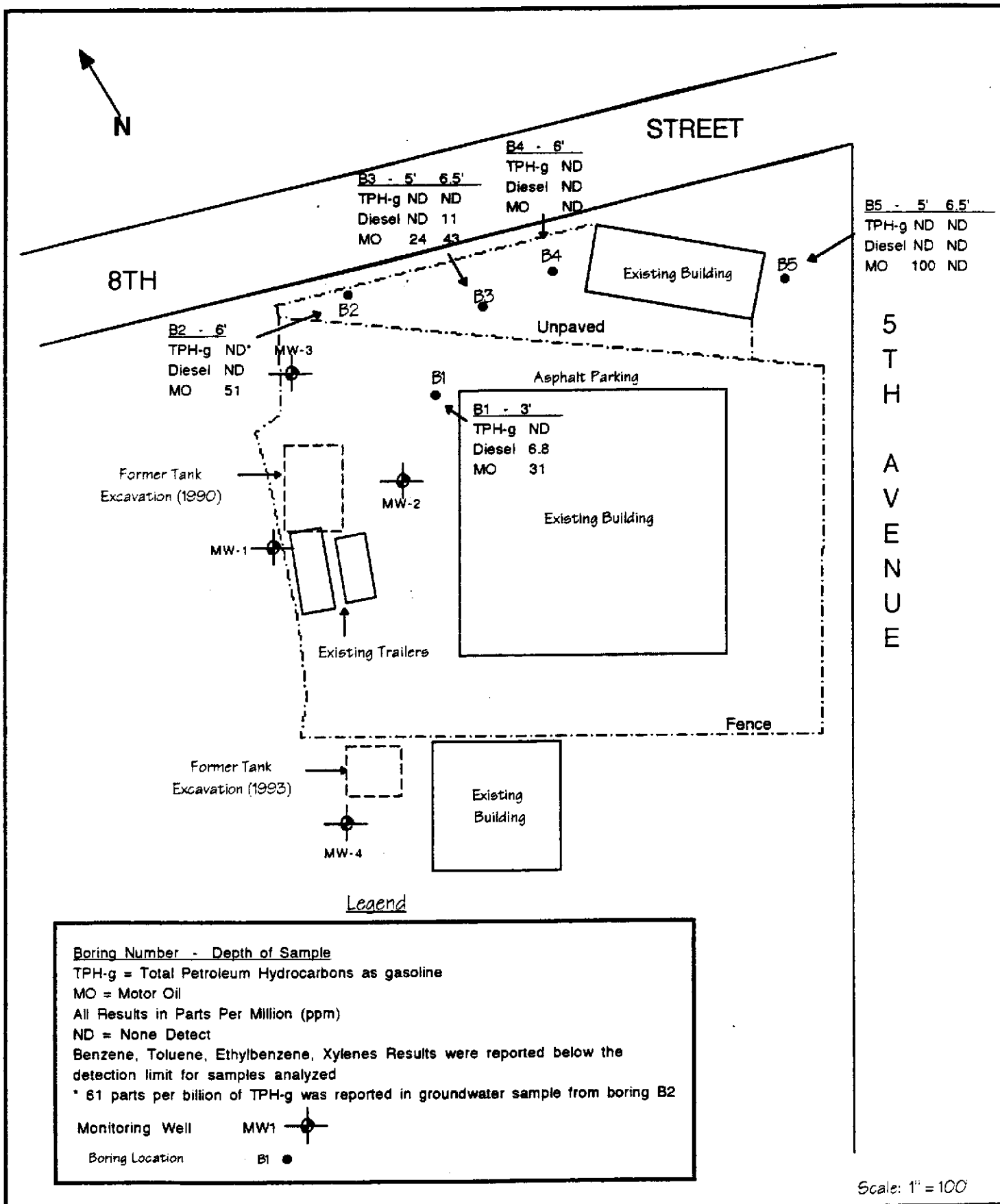

05/26/1994	Drawn By: MCK	Project: 6045-10	Figure 2: **Analytical Results** Peralta Maintainance Yard, Oakland, CA

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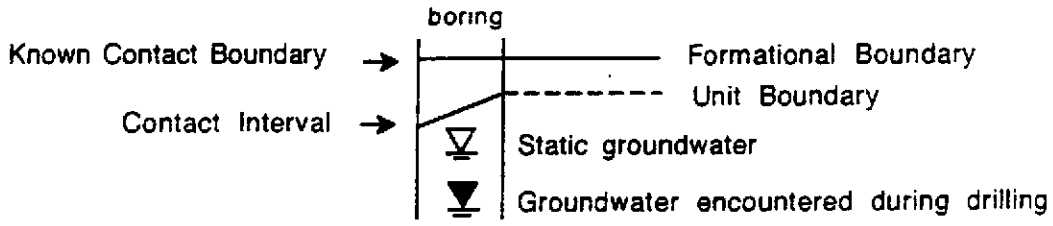
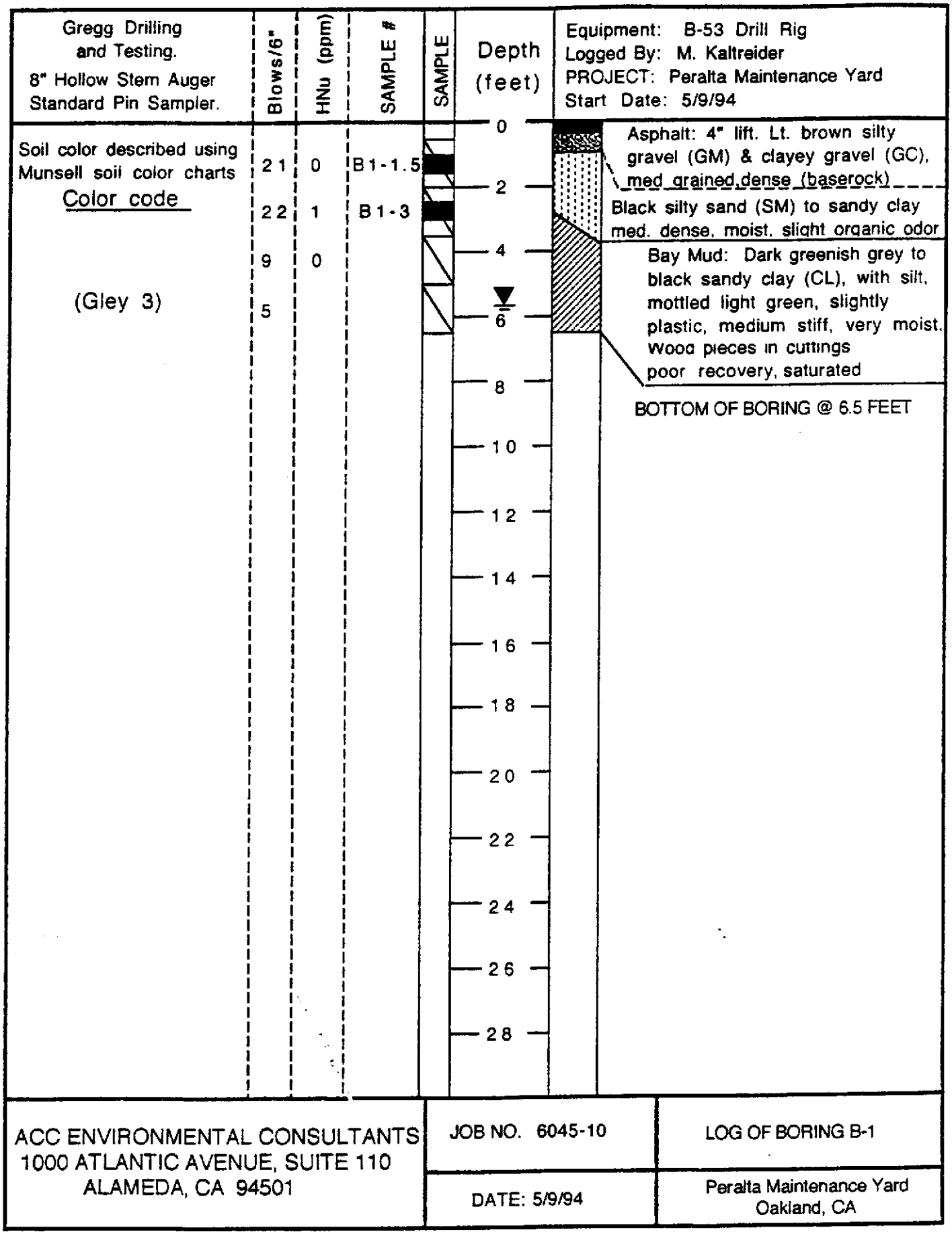
UNIFIED SOIL CLASSIFICATION SYSTEM

	MAJOR DIVISIONS				TYPICAL NAMES
COARSE GRAINED SOILS more than half > #200 sieve	GRAVELS more than half coarse fraction is larger than No. 4 sieve	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		well graded gravels, gravel-sand mixtures
			GP		poorly graded gravels, gravel-sand mixtures
		GRAVELS WITH OVER 12% FINES	GM		silty gravels, poorly graded gravel-sand silt mixtures
			GC		clayey gravels, poorly graded gravel-sand clay mixtures
	SANDS more than half coarse fraction is smaller than No. 4 sieve	CLEAN SANDS WITH LITTLE OR NO FINES	SW		well graded sands, gravelly sands
			SP		poorly graded sands, gravelly sands
		SANDS WITH OVER 12% FINES	SM		silty sands, poorly graded sand-silt mixtures
			SC		clayey sands, poorly graded sand-clay mixtures
FINE GRAINED SOILS more than half < #200 sieve	SILTS AND CLAYS liquid limit less than 50		ML		inorg. silts and v.fine sands, rock flour silty or clayey sands, or clayey silts w/sl. plasticity
			CL		inorg. clays of low-med plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL		organic clays and organic silty clays of low plasticity
	SILTY AND CLAYS liquid limit greater than 50		MH		inorganic silty, micaceous or diatomacious fine sandy or silty soils, elastic silts
			CH		inorganic clays of high plasticity, fat clays
			OH		organic clays of medium to high plasticity organic silts
	HIGHLY ORGANIC SOILS		Pt		peat and other highly organic soils

LEGEND FOR BORING LOGS



ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVENUE, SUITE 110 ALAMEDA, CA 94501		Soil Classification System	
Project No. 6045-10	Date: 5/9/94	DRN: MCK	Peralta Maintenance Yard Oakland, CA


Gregg Drilling and Testing.
8" Hollow Stem Auger
Standard Pin Sampler.
Blows/6"
HNu (ppm)
SAMPLE #
SAMPLE
Depth (feet)
Equipment: B-53 Drill Rig
Logged By: M. Kaltreider
PROJECT: Peralta Maintenance Yard
Start Date: 5/9/94
Soil color described using Munsell soil color charts
Color code
(Gley 3)
21
22
9
5
0
1
0
B1-1.5
B1-3
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
Asphalt: 4" lift. Lt. brown silty gravel (GM) & clayey gravel (GC), med grained,dense (baserock)
Black silty sand (SM) to sandy clay med. dense, moist, slight organic odor
Bay Mud: Dark greenish grey to black sandy clay (CL), with silt, mottled light green, slightly plastic, medium stiff, very moist. Wood pieces in cuttings poor recovery, saturated
BOTTOM OF BORING @ 6.5 FEET
ACC ENVIRONMENTAL CONSULTANTS
1000 ATLANTIC AVENUE, SUITE 110
ALAMEDA, CA 94501
JOB NO. 6045-10
DATE: 5/9/94
LOG OF BORING B-1
Peralta Maintenance Yard
Oakland, CA

Gregg Drilling and Testing.
8" Hollow Stem Auger
Standard Pin Sampler.

Equipment: B-53 Drill Rig
Logged By: M. Kaltreider
PROJECT: Peralta Maintenance Yard
Start Date: 5/9/94

Soil color described using Munsell soil color charts
Color code

(Gley 3)

Blows/6"	HNu (ppm)	SAMPLE #	SAMPLE	Depth (feet)	
				0	Fill: Lt. brown silty gravel (GM) & clayey gravel (GC), med grained, dense, slightly moist.
12	0	B2-2		2	Light brown to yellowish brown sandy silt (CL) with trace clay, slightly plastic, stiff, moist.
17	0	B2-3.5		4	Same as above, very moist to wet
8					
7	0	B2-6		6	Bay Mud: Dark greenish grey to black sandy clay (CL) very plastic, medium stiff, saturated.
				8	BOTTOM OF BORING @ 6.5 FEET
				10	
				12	
				14	
				16	
				18	
				20	
				22	
				24	
				26	
				28	

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ALAMEDA, CA 94501

JOB NO. 6045-10

DATE: 5/9/94

LOG OF BORING B-2

Peralta Maintenance Yard
Oakland, CA

Gregg Drilling and Testing.
8" Hollow Stem Auger
Standard Pin Sampler.

Equipment: B-53 Drill Rig
Logged By: M. Kaltreider
PROJECT: Peralta Maintenance Yard
Start Date: 5/9/94

Soil color described using Munsell soil color charts
Color code

(Gley 3)

Blows/6"	HNu (ppm)	SAMPLE #	SAMPLE	Depth (feet)	
				0	Fill: Brown sandy clay (CL) with trace gravel, med. stiff, plastic, moist.
13				2	Brown sandy clay (CL) with silt, plastic, med. stiff, moist (with roots)
7	0			4	Bay Mud: Dark grey clay (CL) with silt and trace sand, slight horizontal layering of darker sandier material, medium stiff, wet, no free water.
8	0	B3-5			
		B3-6		6	BOTTOM OF BORING @ 6.5 FEET
4	0	B3-6.5			
				8	
				10	
				12	
				14	
				16	
				18	
				20	
				22	
				24	
				26	
				28	

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ALAMEDA, CA 94501

JOB NO. 6045-10

DATE: 5/9/94

LOG OF BORING B-3

Peralta Maintenance Yard
Oakland, CA

Gregg Drilling and Testing. 8" Hollow Stem Auger Standard Pin Sampler.	Blows/6"	HNu (ppm)	SAMPLE #	SAMPLE	Depth (feet)	Equipment: B-53 Drill Rig Logged By: M. Kaltreider PROJECT: Peralta Maintenance Yard Start Date: 5/9/94.
Soil color described using Munsell soil color charts Color code (Gley 3)	14 15 7 5	0 0 0	B4-3.5 B4-5 B4-6.5		0 2 4 6 8 10 12 14 16 18 20 22 24 26 28	Fill: Dark brown gravelly sand (SW) with clay, med. dense, very moist, grading into very dark brown sandy clay (CL) with wood pieces, med. stiff, sl. plastic, very moist. Bay Mud: Dark grey clay (CL) with sand (5-10%), medium stiff, slight organic odor, wet, no free water encountered. BOTTOM OF BORING @ 8 FEET

ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVENUE, SUITE 110 ALAMEDA, CA 94501	JOB NO. 6045-10	LOG OF BORING B-4
	DATE: 5/9/94	Peralta Maintenance Yard Oakland, CA

Gregg Drilling
and Testing.
8" Hollow Stem Auger
Standard Pin Sampler.

Equipment: B-53 Drill Rig
Logged By: M. Kaltreider
PROJECT: Peralta Maintenance Yard
Start Date: 5/9/94

Soil color described using Munsell soil color charts

Color code

(Gley 3)

Blows/6"	HNu (ppm)	SAMPLE #	Depth (feet)	
			0	Fill: Dk. brown gravelly sand (SW) medium dense, with roots, moist.
16			2	
21	0			Same as above, very moist to wet
			4	Brown clayey sand (SC) with trace gravel (<5% gravel), med. dense to loose, saturated.
9	0	B5-5		
10	0	B5-6.5	6	Bay Mud: Dark greenish grey to black sandy clay (CL) very plastic, medium stiff, saturated.
			8	BOTTOM OF BORING @ 6.5 FEET
			10	
			12	
			14	
			16	
			18	
			20	
			22	
			24	
			26	
			28	

ACC ENVIRONMENTAL CONSULTANTS
1000 ATLANTIC AVENUE, SUITE 110
ALAMEDA, CA 94501

JOB NO. 6045-10

DATE: 5/9/94

LOG OF BORING B-5

Peralta Maintenance Yard
Oakland, CA

CHROMALAB, INC.

Environmental Services (SDB)

May 17, 1994

ChromaLab File#: 9405135

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: PERALTA
Received: May 10, 1994

Project#: 6045-10

re: 8 samples for Gasoline and BTEX analysis.

Matrix: SOIL
Sampled on: May 9, 1994
Method: EPA 5030/8015/8020

Analyzed on: May 12, 1994
Run#: 2864

Lab # SAMPLE ID	Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)
51197 B1-3'	N.D.	N.D.	N.D.	N.D.	N.D.
51198 B2-6'	N.D.	N.D.	N.D.	N.D.	N.D.
51199 B3-5'	N.D.	N.D.	N.D.	N.D.	N.D.
51200 B3-6-1/2'	N.D.	N.D.	N.D.	N.D.	N.D.
51201 B4-5'	N.D.	N.D.	N.D.	N.D.	N.D.
51202 B4-6 1/2'	N.D.	N.D.	N.D.	N.D.	N.D.
51203 B5-5'	N.D.	N.D.	N.D.	N.D.	N.D.
51204 B5-6 1/2'	N.D.	N.D.	N.D.	N.D.	N.D.
DETECTION LIMITS	1.0	5.0	5.0	5.0	5.0
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
BLANK SPIKE RECOVERY(%)	109	106	116	117	119

ChromaLab, Inc.

Billy Thach
Chemist

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

May 17, 1994

ChromaLab File No.: 9405135

ACC ENVIRONMENTAL CONSULTANTS

Attn: Misty Kaltreider

RE: Eight soil samples for TEPH analysis

Project Name: PERALTA
Project Number: 6045-10
Date Sampled: May 9, 1994
Date Extracted: May 13, 1994

Date Submitted: May 10, 1994
Date Analyzed: May 13-14, 1994

RESULTS:

Sample I.D.	Kerosene (mg/Kg)	Diesel (mg/Kg)	Motor Oil (mg/Kg)
B1-3'	N.D.	6.8	31
B2-6'	N.D.	N.D.	51
B3-5'	N.D.	N.D.	24
B3-6.5'	N.D.	11	43
B4-5'	N.D.	N.D.	N.D.
B4-6.5'	N.D.	N.D.	N.D.
B5-5'	N.D.	N.D.	100
B5-6.5'	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.
SPIKE RECOVERY	--	111%	--
DUP SPIKE RECOVERY	--	101%	--
DETECTION LIMIT	1.0	1.0	10.0
METHOD OF ANALYSIS	3550/8015	3550/8015	3550/8015

ChromaLab, Inc.

Alex Tam
Analytical Chemist

Eric Tam
Laboratory Director

gg

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510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

ChromaLab File No.: 9405135

May 17, 1994

ACC ENVIRONMENTAL CONSULTANTS

Attn: Misty Kaltreider

RE: Three water samples for TEPH analysis

Project Name: PERALTA
Project Number: 6045-10
Date Sampled: May 9, 1994
Date Extracted: May 16, 1994

Date Submitted: May 10, 1994
Date Analyzed: May 16, 1994

RESULTS:

Sample I.D.	Kerosene (µg/L)	Diesel (µg/L)	Motor Oil (mg/L)
B1-H_2O	N.D.	N.D.	N.D.
B2-H_2O	N.D.	N.D.	N.D.
B5-H_2O	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	--
SPIKE RECOVERY	--	93%	--
DUP SPIKE RECOVERY	--	97%	0.5
DETECTION LIMIT	50	50	3510/8015
METHOD OF ANALYSIS	3510/8015	3510/8015	

ChromaLab, Inc.

Alex Tam
Analytical Chemist

Eric Tam
Laboratory Director

gg

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

May 16, 1994

ChromaLab File#: 9405135

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: PERALTA
Received: May 10, 1994

Project#: 6045-10

re: 3 samples for Gasoline and BTEX analysis.

Matrix: WATER
Sampled on: May 9, 1994
Method: EPA 5030/8015/602

Analyzed on: May 12, 1994
Run#: 2865

Lab #	SAMPLE ID	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
51205	B1-H20	61	N.D.	N.D.	N.D.	N.D.
51206	B2-H20	N.D.	N.D.	N.D.	N.D.	N.D.
51207	B5-H20	N.D.	N.D.	N.D.	N.D.	N.D.
DETECTION LIMITS		50	0.5	0.5	0.5	0.5
BLANK		N.D.	N.D.	N.D.	N.D.	N.D.
BLANK SPIKE RECOVERY(%)		89	96	120	112	118

ChromaLab, Inc.

Jack Kelly
Chemist

Eric Tam
Laboratory Director

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510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

Order # 16369
135/57 1'1 - 5[illegible]

CHROMALAB, INC.

DOHS 1094

2231 SUBM #: 9405135
CLIENT: ACC
DUE: 05/17/94
REF: 16369

Chain of Custody

DATE 5/10/94 PAGE 1 OF 2

PROJ. MGR. Misty Kaltreider
COMPANY ACC Environmental
ADDRESS 1000 Atlantic Ave, Suite 110
Alameda, CA 94501

SAMPLERS (SIGNATURE) Misty Kaltreider (PHONE NO.) (510) 522-8188

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	TEPH	METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)				NUMBER OF CONTAINERS
B1-3'	5/9/94		S			X										X									1
B1-H2O			W			X										X									4
B2-6'			S			X										X									1
B2-H2O			W			X										X									4
B3-5			S			X										X									1
B3-6½			S			X										X									1
B4-5			S			X										X									1
B4-6½			S			X										X									1
B5-5			S			X										X									1

PROJECT INFORMATION

PROJECT NAME: Pearle
PROJECT NUMBER: 6045-10
P.O. # 6045-10
TAT: (STANDARD 5-DAY) | 24 | 48 | 72 | OTHER

SPECIAL INSTRUCTIONS/COMMENTS:

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	15
HEAD SPACE	
REC'D GOOD CONDITION/COLD	
CONFORMS TO RECORD	

	1.	2.	3.
RELINQUISHED BY	Misty Kaltreider		
(SIGNATURE) (TIME)	Misty Kaltreider 5/10/94		
(PRINTED NAME) (DATE)	ACC Environmental		
(COMPANY)			
RECEIVED BY	R Monroe		
(SIGNATURE) (TIME)	R Monroe 5-10-94		
(PRINTED NAME) (DATE)	Chroma Lab		
(COMPANY)			(LAB)
RECEIVED BY (LABORATORY)			