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REPORT
ENVIRONMENTAL SERVICES
19051 LAKE CHABOT ROAD
CASTRO VALLEY, CALIFORNIA

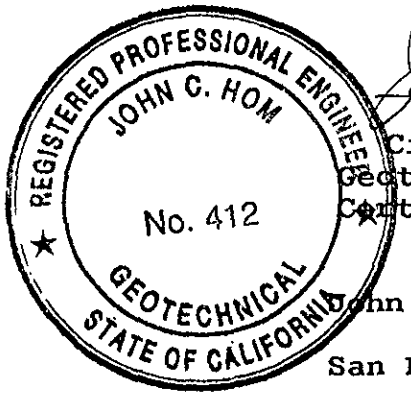
Sept. 19, 1990

JCH&A Job Number 650.1

457-0220

Job Prepared for
Frederick C Divine Associates
1214 Lincoln Avenue
San Rafael, California 94901

by



John C Hom
Civil Engineer - 28877
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Certificates Expire 3/31/91

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September 19, 1990

INTRODUCTION

This report presents the results of the engineering services we performed for the property at 19051 Lake Chabot Road in Castro Valley, California. The scope of our services was to provide recommendations for gasoline clean-up and to observe the contractor's clean-up work. It is our understanding that a 550-gallon, underground storage tank was used to provide gasoline for a privately owned business that formerly occupied the site. Leakage from that tank was suspected by inventory logs. The purpose of our work was to investigate the subsurface conditions in the vicinity of the tank and to determine, if any, the extent and magnitude of soil and ground water contamination; to provide remedial measures or cleanup; and to provide construction observation services.

INITIAL INVESTIGATION

On August 26, and September 26, 1988, we explored the subsurface conditions in the vicinity of the former tank location to the extent of three test borings and converted the borings into three ground water monitoring wells. The wells are at the tank location, and downstream of the tank. The test borings and wells ranged from 20- to approximately 21-1/2-feet below the existing ground surface. A Mobile B-53 drill rig equipped with an 8-inch diameter, hollow-stem auger was used to conduct the test borings. The locations of the test borings and wells are shown on the attached Test Boring and Ground Water Monitoring Well Location Plan, Plate 1. Well construction details are presented on Plate 2. Our Field Engineer was on site to locate the test borings, to observe the drilling and construction of the wells, to log the conditions encountered, and to obtain soil samples for visual examination, classification, and chemical testing. The materials encountered are shown on the logs of the borings, Plates 3 through 5. The soils are described in accordance with the Unified Soil Classification System, as explained on Plate 6. The bedrock is described in accordance with the Geologic Terms For Rock, Plate 7.

Relatively undisturbed samples were obtained by driving a 3-inch outside diameter, 2.43-inch inside diameter, split-barrel sampler with a 140-pound hammer falling about 30-inches. The samples were retained in previously cleaned, brass lined containers and sealed with plastic caps over aluminum foil. The samples were stored in a cooler with dry ice until transported to the chemical laboratory. The driving resistance was recorded for every 6-inches. These resistances were then converted to standard penetration resistance (ASTM D-1586,) which are shown on the logs of the borings. The sampler and brass tubes were steam cleaned prior to taking each sample. The augers were also steam cleaned.

The samples were transported to National Environmental Testing, Inc., (NET). Selected samples were analyzed to determine their levels of purgative aromatics (benzene, ethylbenzene, toluene, xylene) and total petroleum hydrocarbons. Subsequently, ground water samples were taken and tested for the same constituents as the soil samples. Water samples were analyzed with requirements specified in Method "I" and "II" of "Guidelines for Addressing Fuel Leaks", Regional Water Quality Control Board, San Francisco Bay Region, revised 1986. Results of the chemical testing, reporting limits and units are presented on Plates 8 and 9. This sample analysis, along with others by National Environmental Testing, Inc, are attached.

FOLLOW-UP INVESTIGATION

On February 14, 1990, we explored the subsurface conditions and developed two additional wells at locations as shown on Plate 1. The first well is situated at the former tank location. The second well is downstream of the tank location. Drilling was conducted by a truck-mounted drill rig equipped with an 8-inch diameter, hollow-stem auger. The borings extended to a depth of approximately 20-feet below the ground surface. We obtained soil samples every 5-feet with a modified California Sampler driven by a 140-pound hammer. The auger cuttings were set aside and stored in 55-gallon drums. The well construction is shown of Plate 10. Our Field Engineer was on the site to locate the test borings, to observe the drilling and construction of wells, to log the conditions encountered, and to obtain soil samples for visual examination, classification, and chemical testing. The materials encountered are shown on Plates 11 through 12. The soils are described in accordance with the Unified Soil Classification System, as explained on Plate 6. The bedrock materials are described on Plate 7, Geologic Terms For Rock.

The samples obtained were taken to the National Environmental Testing Company, Inc. The soil samples were then analyzed to determine their levels of benzene,

ethylbenzene, toluene, xylene and gasoline. The results of the laboratory testing are shown on Plate 13.

On February 22, 1990 and after the wells were developed, National Environmental Testing, Inc, sampled the water from the test borings and the remaining well from our previous investigation. Two of the previously developed wells (MW-1 and MW-2) along with a domestic well were removed during grading of the subdivision. A copy of the permit is attached at the end of this report. The water levels were initially taken using an electric sounder. The wells were initially purged and the ph conductivity and temperature taken. No free product was observed in any of the samples. The results of the water level, ph, conductivity and temperature are shown in the appendix. The water samples were also tested to determine their level of purgative aromatics. The results are shown on Plate 14.On July 27, 1990, additional water sampling, in the manner described above, was conducted by National Environmental Testing, Inc. The results are summarized on Plate 15.

SITE CONDITIONS AND HISTORY

The site is located on the west side of Lake Chabot Road, approximately 500-feet south of its intersection with Keith Avenue, in Castro Valley, California. The eastern portion of the site is nearly level, with grades of less than 10-percent for a distance of approximately 200-feet west of Lake Chabot Road. Beyond that distance, the site gradually steepens to inclinations of approximately 3-horizontal to 1-vertical (3:1) to the western property boundary. Prior to our work, the site was previously graded to provide for single-family dwellings and two commercial buildings. Only one known domestic well occupies the site, approximately as located on Plate 1. Chemical tests dated 1988 provided by the owner is shown on the back of the report. The former tank location was located south and west of a warehouse. Information provided to us by Mr Henry Hertlein indicated that a 550-gallon steel tank, used to store leaded gasoline, was installed in the 1950's. Its initial location is outlined on Plate 1. Subsequently, in 1960, a storm drain construction project by the County of Alameda, Flood Control, required removal of the tank from its initial location. The tank was moved by the County's Contractor approximately 20-feet west, and the bottom situated approximately 10-feet below the existing ground surface.

Through the course of that year and after relocation of the tank, the owner noticed high amounts of gas consumption. Therefore, he suspected a leaking tank. He reported the leak to the County. The County, or their Contractor, excavated and removed the tank and found a large gap in the side of the tank which indicated severe leakage. The tank was probably damaged when it was initially moved for the storm drain project. The damaged tank was replaced.

In 1986, the commercial business re-located and the second tank was removed. The soil around the tank was excavated and allowed to aerate for an unknown amount of time. Imported sand was placed back in the void left by the tank. It is unknown if the second tank had leaked. The Owner tested the soil for contamination during the tank removal.

CONSTRUCTION OBSERVATIONS

- When ? 2/89

We recommended and observed removal of contaminated soil and groundwater in the areas around the tank. Soil in this area was removed and bedrock exposed at the bottom of the excavation. The excavation was sloped back to about 2-horizontal to 1-vertical (2:1). Excavated soil below 3-feet was stockpiled on the site and allowed to aerate. The groundwater was at the bottom of the excavation and was pumped into the soil stockpile. Some amounts of water seeped into the excavation after the initial pumping. This excavation was then pumped dry. We sampled and tested the water and soil at the bottom of the excavation. The results of the tests are shown on Plate 16. The excavation was then filled with "clean" soil, not excavated material. Fill was placed in lifts, moisture-conditioned to near optimum, and compacted to at least 90-percent relative compaction.

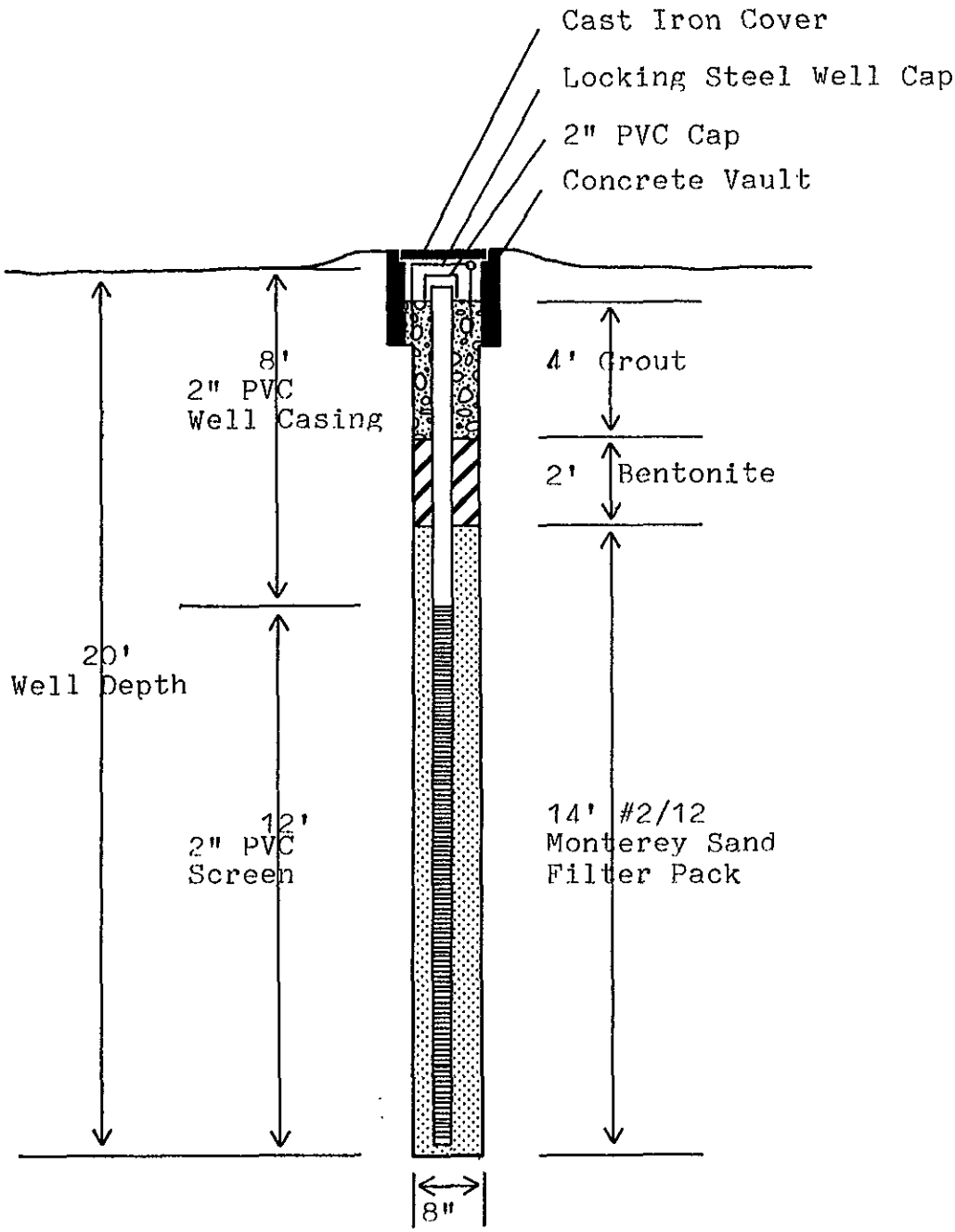
The material that was stockpiled and aerated was sampled, and was determined to contain non-detectible levels of gasoline. Plate 16 shows the results of the testing. This material was then used as fill within the development.

It is our opinion that the cleanup work has substantially improved the site soil and groundwater contamination.

CONCLUSIONS

Based upon the results of our work, the chemical testing indicates that groundwater at the former tank site and downstream is below acceptable levels and guidelines set forth by the Regional Water Quality Control Board. A detectible amount of benzene was encountered in the soil samples. However, it did not appear from the test results that groundwater was affected. Therefore, it is our recommendation that monitoring of the existing well continue for a total period of one year from the date of well installation. The monitoring should include collecting water samples every three months. Should future testing indicate acceptable levels, it would be our opinion that the site has been cleaned. Therefore, no remedial work would be necessary. Should the water samples exceed the Regional Water Quality Control Board guidelines, we should provide recommendations for additional clean-up.

PLATES



JCH **JOHN C. HOM** & ASSOCIATES, INC. *Geotechnical Consultants*	Job No: 650.1 Appr: Date: 10/89	Schematic Well Construction Diagram 19051 Lake Chabot Road Castro Valley, California	PLATE **2**

Log of Boring 1

Equipment B-53 Mobile Drill

Elevation **218 Date 8/26/88

Laboratory Tests	Drill Rate (min/ft)	Drill Pressure (psi)	Blows/foot	Moisture Content (%)	Dry Density (pcf)	Depth (ft)	Sample	
			*			0		A.C.
								YELLOW BROWN CLAYEY SANDY GRAVEL (GP), moist, loose, (FILL)
								OLIVE BROWN GRAVELLY SANDY CLAY (CL), moist, stiff, (FILL)
			12					
Chem. Analysis						3		
								MOTTLED ORANGE-BROWN, GREY SANDY CLAY (CL), wet, medium stiff, (ALLUVIUM)
			6					
Chem. Analysis						6		
			3					grades to soft
Chem. Analysis								
						9		
							▽	grades to saturated
			4					
						12		DARK GREY CLAYEY GRAVEL (GC), saturated, loose, (RESIDUAL SOIL)
			8					
						15		
								DARK GREY SHALE, moderately hard, weak, moderately weathered, (BEDROCK)
			17/4"			18		
			11/3"					
						21		Boring Terminated at 21 feet
								*Values Converted to Standard Penetration Resistance
						24		

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LOG OF BORING 1

19051 Lake Chabot Road
Castro Valley, California

PLATE 3

Log of Boring 2

Equipment: Portable Powered Auger

Elevation: 214 Date: 9/26/88

Laboratory Tests	Drill Rate (min/ft)	Drill Pressure (psi)	Blows/foot	Moisture Content (%)	Dry Density (pcf)	Depth (ft)	Sample	
						0		A.C.
								YELLOW-BROWN GRAVELLY CLAYEY SAND (SC), moist, loose, (FIIL)
						3		BROWN SANDY CLAY (CL), moist, medium stiff, (ALLUVIUM)
			21			6		MOTTLED RUST-BROWN, GRAY-BROWN SANDY CLAY (CL), wet, very stiff, (ALLUVIUM)
Chem. Analysis			8			9		grades to saturated, stiff
						12		
						15		
			5			18		GRAY CLAYEY SAND (SC), saturated, loose, w/gravel, (ALLUVIUM)
						21		Test Boring Terminated at 20 feet
						24		

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LOG OF BORING 2

19051 Lake Chabot Road
Castro Valley, California

PLATE 4

Log of Boring 3

Equipment: Portable Powered Auger

Elevation: 212 Date: 9/26/88

Laboratory Tests	Drill Rate (min/ft)	Drill Pressure (psi)	Blows/foot	Moisture Content (%)	Dry Density (pcf)	Depth (ft) Sample	
						0	A.C. YELLOW-BROWN GRAVELLY CLAYEY SAND (SC), moist, loose, (FILL) BROWN SANDY CLAY (CL), moist, soft, (FILL)
						3	MOTTLED ORANGE, YELLOW-BROWN SANDY CLAY (CL), moist, stiff, (ALLUVIUM)
			13			6	
							MOTTLED YELLOW-BROWN, GRAY-BROWN SANDY CLAY (CL), moist, stiff, (ALLUVIUM)
						9	
Chem. Analysis			9				▽ grades to saturated
						12	
							GRAY-BROWN CLAYEY SAND (SC), saturated, loose, (ALLUVIUM)
						15	
			4				
						18	
							grades to coarse sand
			4			21	
							Test Boring Terminated at 21.5 feet
							Top of casing elevation: 211.77
						24	

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LOG OF BORING 3

19051 Lake Chabot Road
Castro Valley, California

PLATE 5

MAJOR DIVISIONS				TYPICAL NAMES
COARSE GRAINED SOILS (MORE THAN HALF IS LARGER THAN #200 SIEVE)	GRAVELS (MORE THAN HALF COARSE FRACTION IS LARGER THAN NO 4 SIEVE SIZE)	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 SIZE)	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 IS SMALLER THAN #200 SIEVE)	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, 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

UNIFIED SOIL CLASSIFICATION SYSTEM

Consol - Consolidation
LL - Liquid Limit (In %)
PL - Plastic Limit (In %)
PI - Plasticity Index
G_s - Specific Gravity
SA - Sieve Analysis
■ "Undisturbed" Sample
⊠ Bulk or Disturbed Sample
◪ Standard Penetration Test
□ Sample Attempt with No Recovery

	Shear Strength, psf	Confining Pressure, psf	
Tx	320	(2600)	Unconsolidated Undrained Triaxial
Tx CU	320	(2600)	Consolidated Undrained Triaxial
DS	2750	(2000)	Consolidated Drained Direct Shear
FVS	470		Field Vane Shear
UC	2000		Unconfined Compression
LVS	700		Laboratory Vane Shear

SS - Shrink Swell
EXP - Expansion
P - Permeability

Note: All strength tests on 2.8" or 2.4" diameter sample unless otherwise indicated.

KEY TO TEST DATA

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SOIL CLASSIFICATION CHART AND KEY TO TEST DATA
19051 Lake Chabot Road
Castro Valley, California

PLATE 6

ROCK TYPES

 CONGLOMERATE

 SHALE

 METAMORPHIC ROCKS
HYDROTHERMALLY-ALTERED ROCKS

 SANDSTONE

 SHEARED SHALE MELANGE

 IGNEOUS ROCKS

 META-SANDSTONE

 CHERT

BEDDING THICKNESS

MASSIVE	Greater than 6 feet
THICKLY BEDDED	2 to 6 feet
MEDIUM BEDDED	8 to 24 inches
THINLY BEDDED	2-1/2 to 8 inches
VERY THINLY BEDDED	3/4 to 2-1/2 inches
CLOSELY LAMINATED	1/4 to 3/4 inches
VERY CLOSELY LAMINATED	Less than 1/4 inch

JOINT, FRACTURE, OR SHEAR SPACING

VERY WIDELY SPACED	Greater than 6 feet
WIDELY SPACED	2 to 6 feet
MODERATELY WIDELY SPACED	8 to 24 inches
CLOSELY SPACED	2-1/2 to 8 inches
VERY CLOSELY SPACED	3/4 to 2-1/2 inches
EXTREMELY CLOSELY SPACED	Less than 3/4 inch

HARDNESS

Soft - pliable; can be dug by hand

Slightly Hard - can be gouged deeply or carved with a pocket knife

Moderately Hard - can be readily scratched by a knife blade; scratch leaves heavy trace of dust and is readily visible after the powder has been blown away

Hard - can be scratched with difficulty; scratch produces little powder and is often faintly visible

Very Hard - cannot be scratched with pocket knife, leaves a metallic streak

STRENGTH

Plastic - capable of being molded by hand

Friable - crumbles by rubbing with fingers

Weak - an unfractured specimen of such material will crumble under light hammer blows

Moderately Strong - specimen will withstand a few heavy hammer blows before breaking

Strong - specimen will withstand a few heavy ringing hammer blows and usually yields large fragments

Very Strong - rock will resist heavy ringing hammer blows and will yield with difficulty only dust and small flying fragments.

DEGREE OF WEATHERING

Highly Weathered - abundant fractures coated with oxides, carbonates, sulphates, mud, etd., through discoloration, rock disintegration, mineral decomposition

Moderately Weathered - some fracture coating, moderate or localized discoloration, little to no effect on cementation, slight mineral decomposition

Slightly Weathered - a few strained fractures, slight discoloration, little or no effect on cementation, no mineral decomposition

Fresh - unaffected by weathering agents, no appreciable change with depth.

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GEOLOGIC TERMS FOR ROCK

19051 Lake Chabot Road
Castro Valley, California

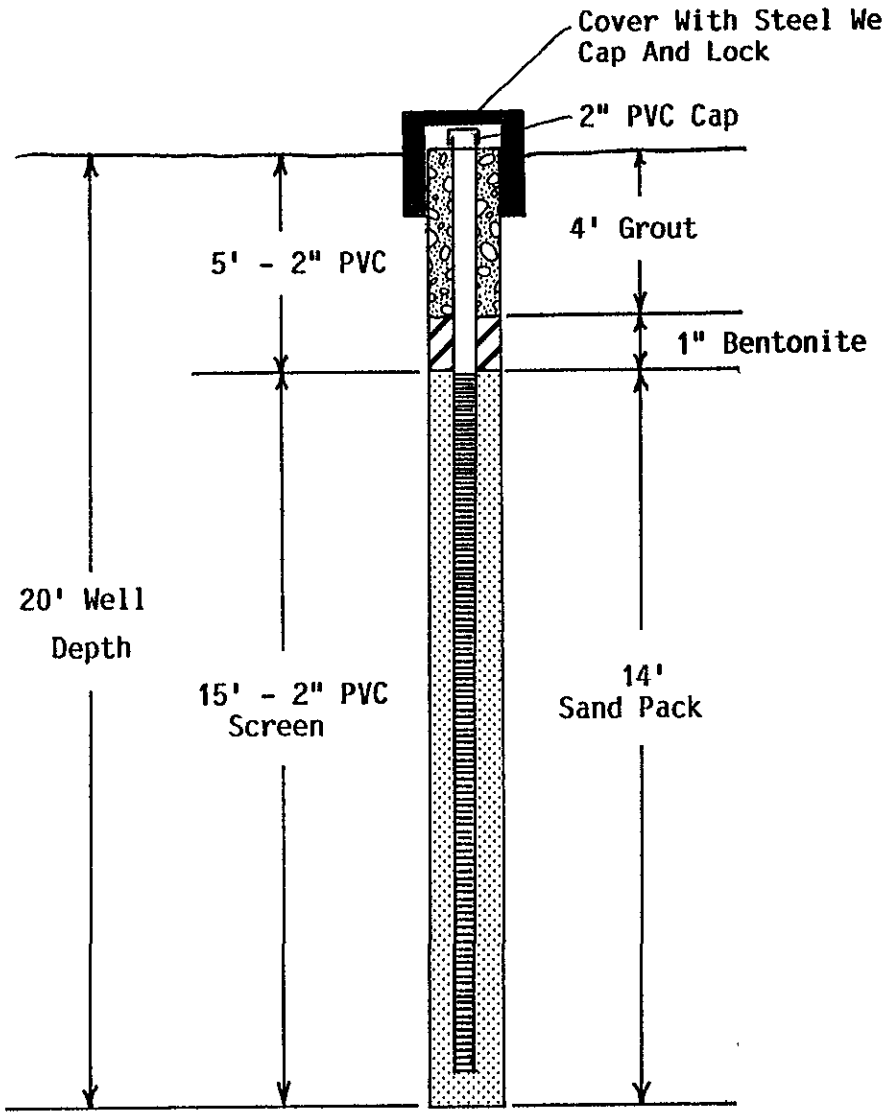
PLATE
7

Soil Sample Analysis, Gasoline, BTX & E (8020, THP Light)

Sample Location	Parameter	Reporting Limit	Results	Units
	Petroleum			
B-1/MW-1	Hydrocarbons	10.0	ND	ppm
@ 3-Feet	Benzene	2.5	ND	ppb
8/26/88	Toluene	2.5	13	ppb
16:40	Xylenes	2.5	ND	ppb
	Ethylbenzene	3.0	ND	ppb
	Petroleum			
B-1/MW-1	Hydrocarbons	10.0	ND	ppm
@ 6-Feet	Benzene	2.5	ND	ppb
8/26/88	Toluene	2.5	ND	ppb
16:40	Xylenes	2.5	ND	ppb
	Ethylbenzene	3.0	ND	ppb
	Petroleum			
B-1/MW-1	Hydrocarbons	10.0	71,000	ppm
@ 8-Feet	Benzene	2.5	1,200	ppb
8/26/88	Toluene	2.5	2,900	ppb
16:40	Xylenes	2.5	7,200	ppb
	Ethylbenzene	3.0	3,900	ppb
	Petroleum			
B-2/MW-2	Hydrocarbons	10.0	ND	ppm
@ 10.5-Feet	Benzene	0.5	ND	ppb
8/26/88	Toluene	0.5	ND	ppb
8:11	Xylenes	0.6	ND	ppb
Former B-8	Ethylbenzene	0.6	ND	ppb
	Petroleum			
B-3/MW-3	Hydrocarbons	10.0	ND	ppm
@ 11-Feet	Benzene	0.5	ND	ppb
8/26/88	Toluene	0.5	ND	ppb
8:11	Xylenes	0.6	ND	ppb
Former B-9	Ethylbenzene	0.6	ND	ppb

Water Sample Analysis, Gasoline, BTX & E (602, THP Light)

Sample Location	Parameter	Reporting Limit	Results	Units
	Petroleum			
B-1/MW-1	Hydrocarbons	0.05	52	ppm
9/2/88	Benzene	0.5	420	ppb
14:00	Toluene	0.5	440	ppb
	Xylenes	0.6	3,300	ppb
	Ethylbenzene	0.6	610	ppb
	Petroleum			
B-2/MW-2	Hydrocarbons	0.5	ND	ppm
9/28/88	Benzene	0.5	1.1	ppb
13:00	Toluene	0.5	ND	ppb
Former B-8	Xylenes	1.5	1.9	ppb
	Ethylbenzene	1.5	ND	ppb
	Petroleum			
B-3/MW-3	Hydrocarbons	0.5	ND	ppm
9/28/88	Benzene	0.5	ND	ppb
13:00	Toluene	0.5	ND	ppb
Former B-9	Xylenes	1.5	ND	ppb
	Ethylbenzene	1.5	ND	ppb



Boring Logs dated 2/14/90 (Plate 11 & 12) for B1 & B2 are attached to letter dated 10/25/90

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Soil Sample Analysis, Gasoline, BTX & E

Sample Location	Parameter	Reporting Limit	Results	Units
B-1 @ 6-Feet	Gasoline	1	ND	ppm
2/14/90	Benzene	2.5	ND	ppb
	Ethylbenzene	2.5	ND	ppb
	Toluene	2.5	6.6	ppb
	Xylenes, total	2.5	4.0	ppb
B-1 @ 11.5-Feet	Gasoline	1	ND	ppm
2/14/90	Benzene	2.5	ND	ppb
	Ethylbenzene	2.5	ND	ppb
	Toluene	2.5	5.0	ppb
	Xylenes, total	2.5	ND	ppb
B-1 @ 16-Feet	Gasoline	1	ND	ppm
2/14/90	Benzene	2.5	ND	ppb
	Ethylbenzene	2.5	ND	ppb
	Toluene	2.5	3.3	ppb
	Xylenes, total	2.5	ND	ppb
B-1 @ 18.5-Feet	Gasoline	1	ND	ppm
2/14/90	Benzene	2.5	4.9	ppb
	Ethylbenzene	2.5	5.2	ppb
	Toluene	2.5	90.	ppb
	Xylenes, total	2.5	52.	ppb
B-2 @ 6-Feet	Gasoline	1	ND	ppm
2/14/90	Benzene	2.5	ND	ppb
	Ethylbenzene	2.5	ND	ppb
	Toluene	2.5	1.7	ppb
	Xylenes, total	2.5	1.1	ppb
B-2 @ 11-Feet	Gasoline	1	ND	ppm
2/14/90	Benzene	2.5	2.5	ppb
	Ethylbenzene	2.5	ND	ppb
	Toluene	2.5	7.3	ppb
	Xylenes, total	2.5	6.7	ppb
B-2 @ 16-Feet	Gasoline	1	ND	ppm
2/14/90	Benzene	2.5	ND	ppb
	Ethylbenzene	2.5	ND	ppb
	Toluene	2.5	4.9	ppb
	Xylenes, total	2.5	7.1	ppb
B-2 @ 19.5-Feet	Gasoline	1	ND	ppm
2/14/90	Benzene	2.5	7.7	ppb
	Ethylbenzene	2.5	5.1	ppb
	Toluene	2.5	55.	ppb
	Xylenes, total	2.5	34.	ppb

Water Sample Analysis, Gasoline, BTX & E

Sample Location	Parameter	Reporting Limit	Results	Units
B-1, 2/14/90, Drilled Well #2 (NET) 2/22/90, Sampled	Gasoline	0.05	ND	ppm
	Benzene	0.5	ND	ppb
	Ethylbenzene	0.5	ND	ppb
	Toluene	0.5	ND	ppb
	Xylenes, total	0.5	ND	ppb
B-2 2/14/90, Drilled Well #2 (NET) 2/22/90, Sampled	Gasoline	0.05	ND	ppm
	Benzene	0.5	ND	ppb
	Ethylbenzene	0.5	ND	ppb
	Toluene	0.5	ND	ppb
	Xylenes, total	0.5	ND	ppb
MW-3 Well #3 (NET) Former B-9 8/26/89, Drilled 2/22/90, Sampled	Gasoline	0.05	ND	ppm
	Benzene	0.5	ND	ppb
	Ethylbenzene	0.5	ND	ppb
	Toluene	0.5	ND	ppb
	Xylenes, total	0.5	ND	ppb

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CHEMICAL TESTING

19051 Lake Chabot Road
Castro Valley, California

PLATE 14

Water Sample Analysis, Gasoline, BTX & E

	Sample Location	Parameter	Reporting Limit	Results	Units
1	B-1, Well #2 (NET)	Gasoline	0.05	0.46	ppm
	7/27/90, Sampled	Benzene	0.5	ND	ppb
		Ethylbenzene	0.5	ND	ppb
	Lot 12	Toluene	0.5	ND	ppb
		Xylenes, total	0.5	3.1	ppb
2	B-2 Well #1 (NET)	Gasoline	0.05	0.10	ppm
	7/27/90, Sampled	Benzene	0.5	ND	ppb
		Ethylbenzene	0.5	ND	ppb
	Lot 9	Toluene	0.5	ND	ppb
		Xylenes, total	0.5	ND	ppb
3	MW-3 Well #3 (NET)	Gasoline	0.05	0.1	ppm
	Former B-9	Benzene	0.5	ND	ppb
	7/27/90, Sampled	Ethylbenzene	0.5	ND	ppb
		Toluene	0.5	ND	ppb
	Lot 14	Xylenes, total	0.5	ND	ppb

[redacted]

JOHN C. HOM & ASSOCIATES, INC.
Geotechnical Consultants

Job No: 650.1
Appr: JCH
Date: 9/90

CHEMICAL TESTING

19051 Lake Chabot Road
Castro Valley, California

PLATE 15

2/89

WATER AND SOIL SAMPLING DURING CONSTRUCTION

Sample Description	Parameter	Reporting Limits	Results	Units
Water Sample at Bottom of Pit	Petroleum Hydrocarbons	0.05	52	ppm
	Benzene	0.5	750	ppb
	Ethylbenzene	0.6	ND	ppb
	Toluene	0.5	520	ppb
	Xylenes, total	0.6	3100	ppb
Soil Samples at bottom of Pit	Petroleum Hydrocarbons	10	84	ppm
	Benzene	2.5	ND	ppb
	Ethylbenzene	3.0	ND	ppb
	Toluene	2.5	ND	ppb
	Xylenes, total	3.0	8400	ppb
Soil Samples of Stockpile	Petroleum Hydrocarbons	10	ND	ppm
	Benzene	2.5	ND	ppb
	Ethylbenzene	3.0	ND	ppb
	Toluene	2.5	ND	ppb
	Xylenes, total	3.0	ND	ppb

APPENDIX

CONTENTS:

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Patrick J. Conway
John C. Hom & Associates, Inc.
1618 Second St
San Rafael, CA 94901

09-13-88
NET Pacific Log No. 4064 (1-10)
Series No: 589/001
Client Ref: (V) Conway

Subject: Analytical Results for Three Soil Samples Identified as "Hertlein Property/Lake Chabot, Castro Valley" Received 08-26-88.

Dear Mr. Conway:

Analysis of the sample referenced above has been completed. This report is written in confirmation of results transmitted verbally on September 12, 1988. Results are presented on the following pages.

Samples were delivered to the laboratory under documented chain-of-custody. On receipt, sample custody was transferred to ANATEC sample control personnel who subsequently documented receipt and condition of the samples and placed them in secured storage at 4°C until analysis commenced.

In accord with instructions received, seven samples were placed on "hold" (placed in refrigerated storage; not analyzed).

In preparation for benzene, ethylbenzene, toluene, xylene ("volatile aromatics") and volatile hydrocarbons measurements, aliquots of samples were taken from core centers with stainless steel implements, immediately weighed, and sealed in septum-capped vials. Additionally, vials were prepared in essentially the same fashion to represent method blanks, commercial gasoline standards, gasoline-fortified sample spikes and sample replicates. Each vial was heated for a period of one hour at 90°C during which time light hydrocarbons (such as gasoline) were expected to equilibrate in distribution between sample and headspace. Headspace gases were subsequently analyzed by gas chromatography to measure total light hydrocarbons. Response of the chromatographic system to samples was compared with response to standards prepared with gasoline, and from reagent grade volatile aromatics for purposes of qualitative and quantitative interpretation.

The sample was analyzed to measure purgeable aromatic compounds in accord with Method 8020, "Purgeable Aromatics" in "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," U.S. EPA, 40 CFR 136, 1984. Briefly, the method involved the sparging of a 1-gram portion of sample with reagent helium in a closed system. Volatile compounds purged from the sample were swept onto a solid sorbent "trap" from which they were subsequently desorbed and passed onto the analytical column of a gas chromatograph; column effluent was monitored by a photoionization detector. Response of the chromatographic system to the sample was compared with responses generated by analysis of analytical grade standards for purposes of qualitative and quantitative interpretation.

Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

Diane Braithwaite
Diane Braithwaite
Project Chemist

Approved by:

Kim Hansard
Kim Hansard
Project Manager

/ml
Enc: Sample Custody Document

KEY TO ABBREVIATIONS

RL	:	Reporting limit.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
NA	:	Not analyzed; see cover letter for details.
ND	:	Not detected; the analyte concentration is less than the listed reporting limit.
NR	:	Not requested.
NTU	:	Nephelometric turbidity units.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.
*	:	See cover letter for details.

SAMPLE DESCRIPTION: B-1 @ 3 FT 08-26-88
LAB NO.: (-14375)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	10	ND	mg/Kg
PURGEABLE AROMATICS (8020)			
Benzene	2.5	ND	ug/Kg
Ethyl benzene	3.0	ND	ug/Kg
Toluene	2.5	13	ug/Kg
Xylenes, total	2.5	ND	ug/Kg

SAMPLE DESCRIPTION: B-1 @ 6 ft 08-26-88
LAB NO.: (-14376)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	10	ND	mg/Kg
PURGEABLE AROMATICS (8020)			
Benzene	2.5	ND	ug/Kg
Ethyl benzene	3.0	ND	ug/Kg
Toluene	2.5	ND	ug/Kg
Xylenes, total	2.5	ND	ug/Kg

SAMPLE DESCRIPTION: B-1 @ 8 ft 08-26-88
LAB NO.: (-14377)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	10	71,000	mg/Kg
PURGEABLE AROMATICS (8020)			
Benzene	2.5	1,200	ug/Kg
Ethyl benzene	3.0	3,900	ug/Kg
Toluene	2.5	2,900	ug/Kg
Xylenes, total	2.5	7,200	ug/Kg

ANATEC LABORATORIES INC.

NATIONAL ENVIRONMENTAL TESTING, INC. NET Laboratory Group

435 Tesconi Circle, Santa Rosa, CA 95401

CHAIN OF CUSTODY RECORD

Client #589

PROJ. NO.	PROJECT NAME
	Hertlein Property / Lake Chabot, Castro Valley

SAMPLERS: (Signature)

STA. NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTX&E (EPA 8020)	TPH (Light)	REMARKS
Boring 1	8/26				Boring 1 at 3½ feet	1	X	X	
1	8/26				" " at 5½ feet	1			hold
1	8/26				" " at 6½ feet	1	X	X	
1	8/26				" " at 7½ feet	1			hold
1	8/26				" " at 8½ feet	1	X	X	
1	8/26				" " at 10½ feet	1			hold
1	8/26				" " at 11½ feet	1			hold
1	8/26				" " at ~~12~~ 12½ feet	1			hold
1	8/26				at 17½ feet	1			hold
1	8/2				at 20½ feet	1			hold

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Patrick Conway	8/26 4:40				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Judy Kelly	8/26 1645	Log #4064	

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NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Patrick J. Conway
John C. Hom & Assoc., Inc.
1618 Second St
San Rafael, CA 94901

10-14-88
NET Pacific Log No: 4303 (-1,2)
Series No: 589/003
Client Ref: Written

Subject: Analytical Results for Two Soil Samples Identified as "Hertlein Property, 19051 Lake Chabot Rd" Received 09-27-88.

Dear Mr. Conway:

Analysis of the samples referenced above has been completed. This report is written in confirmation of results transmitted verbally on October 13, 1988. Results are presented following this page.

Samples were delivered to the laboratory under documented chain-of-custody. On receipt, sample custody was transferred to NET Pacific sample control personnel who subsequently documented receipt and condition of the samples and placed them in secured storage at 4°C until analysis commenced.

In accord with instructions received, five samples were placed on "hold" (placed in refrigerated storage; not analyzed).

In preparation for volatile hydrocarbons measurements, aliquots of samples were taken from core centers with stainless steel implements, immediately weighed, and sealed in septum-capped vials. Additionally, vials were prepared in essentially the same fashion to represent method blanks, commercial gasoline standards, gasoline-fortified sample spikes and sample replicates. Each vial was heated for a period of one hour at 90°C during which time light hydrocarbons (such as gasoline) were expected to equilibrate in distribution between sample and headspace. Headspace gases were subsequently analyzed by gas chromatography to measure total light hydrocarbons. Response of the chromatographic system to samples was compared with response to standards prepared with gasoline for purposes of qualitative and quantitative interpretation.

Samples were also analyzed to measure volatile organic compounds content. Briefly, a slurry was created with weighed portions of sample and organics-free deionized water. The slurry was sparged in a closed system using reagent helium. Organic compounds purged from the slurry were sorbed onto a solid "trap" and later thermally desorbed into a gas chromatograph-mass spectrometer. Compounds entering the mass spectrometer were fragmented by electron-impact ionization and fragmentation patterns analyzed by an HP-1000 computer to obtain qualitative and quantitative results.

Details of the analytical methodology are consistent with requirements specified in Method "I" ("Total Fuel Hydrocarbons, Low-to-Medium Boiling Point Hydrocarbons") in "Guidelines for Addressing Fuel Leaks," Regional Water Quality Control Board, San Francisco Bay Region, revised 1986; the preparation procedures used are described in detail in "Headspace Method," Method 5020 for gasoline and "Purge and Trap" Method 5030 for purgeable aromatics in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA, SW-846, 3rd edition, revised 1986.

Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

Diane Braithwaite
Diane Braithwaite
Project Chemist

Approved by:

Kim Hansard
Kim Hansard
Project Manager

/sm
Enc: Sample Custody Document

KEY TO ABBREVIATIONS

RL	:	*Reporting limit.*
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
NA	:	Not analyzed; see cover letter for details.
ND	:	Not detected; the analyte concentration is less than the listed reporting limit.
NR	:	Not requested.
NTU	:	Nephelometric turbidity units.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
ug/filter	:	Concentration in units of micrograms of analyte per filter.
umhos/cm	:	Micromhos per centimeter.
*	:	See cover letter for details.

THE COVER LETTER AND KEY TO ABBREVIATIONS ARE AN INTEGRAL PART OF THIS REPORT

SAMPLE DESCRIPTION: 8 @ 10.5ft 09-26-88
LAB NO.: (-15881)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	10	ND	mg/Kg
PURGEABLE AROMATICS (8020)			
Benzene	0.5	ND	ug/Kg
Ethyl benzene	0.6	ND	ug/Kg
Toluene	0.5	ND	ug/Kg
Xylenes, total	0.6	ND	ug/Kg

SAMPLE DESCRIPTION: 9 @ 11ft 09-26-88
LAB NO.: (-15882)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	10	ND	mg/Kg
PURGEABLE AROMATICS (8020)			
Benzene	0.5	ND	ug/Kg
Ethyl benzene	0.6	ND	ug/Kg
Toluene	0.5	ND	ug/Kg
Xylenes, total	0.6	ND	ug/Kg

THE COVER LETTER AND KEY TO ABBREVIATIONS ARE AN INTEGRAL PART OF THIS REPORT

LABORATORIES INC

ENVIRONMENTAL TESTING, INC. NCL Group

435 Tesconi Circle, Santa Rosa, CA 95401

CHAIN OF CUSTODY RECORD

PROJ. NO. | PROJECT NAME: Hertlein Property / 16051 LAKE Chabot Road

SAMPLERS (Signature)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTXE (EPA 8020)	TPH (Light)	REMARKS
Boring 8	9/26				Boring 8 At 6'	1			hold
8	9/26				" 8 At 10½	1	X	X	
8	↓				" 8 At 16'	1			hold
9					Boring 9 At 5½	1			hold
9					" 9 At 11½'	1	X	X	
9					" 9 At 16'	1			hold
9					" 9 At 21'	1			hold

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Patrick Conway	9/27/88 8:11				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Judy Ridley	Date / Time 9/27 0871	Remarks log # 4303	

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NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Patrick J. Conway
John C. Hom & Assoc., Inc.
1618 Second St
San Rafael, CA 94901

09-21-88
NET Pacific Log No: 4120 (-1)
Series No: 589/002
Client Ref: (V) Gergus

Subject: Analytical Results for One Water Sample Identified as "Hertlein" Received 09-02-88.

Dear Mr. Conway:

Analysis of the sample referenced above has been completed. This report is written in confirmation of results transmitted verbally on September 21, 1988. Results are presented following this page.

Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

Diane Braithwaite
Project Chemist

Approved by:

Kim Hansard
Project Manager

/sm
Enc: Sample Custody Document

KEY TO ABBREVIATIONS

RL	:	Reporting limit.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
NA	:	Not analyzed; see cover letter for details.
ND	:	Not detected; the analyte concentration is less than the listed reporting limit.
NR	:	Not requested.
NTU	:	Nephelometric turbidity units.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.
*	:	See cover letter for details.

SAMPLE DESCRIPTION: MW-1 9-2-88 1401-1411
LAB NO.: (-14800)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	0.05	52	mg/L
PURGEABLE AROMATICS (602)			
Benzene	0.50	420	ug/L
Ethyl benzene	0.60	610	ug/L
Toluene	0.50	440	ug/L
Xylenes,total	0.60	3,300	ug/L

ANATEC LABORATORIES INC

435 Tesconi Circle, Santa Rosa, CA 95401

NATIONAL ENVIRONMENTAL TESTING, INC. NET Laboratory Group

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
	Hartlein

SAMPLERS: (Signature)
Scott A. Fergus

STA NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS							REMARKS
1	9/2	2:01			Hartlein Monitoring Well #1	1							Gasoline in water - all VOA's have sediment in the bottom. BTX+E (~~8020~~ 602)
	"	2:03				1							
	"	2:07				1							
	"	2:09				1							
	"	2:11				1							
						5							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Scott A. Fergus	9/2 5:18				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		K Temple	9/2/08 1715	4120	

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NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Patrick J. Conway
John C. Hom & Assoc., Inc.
1618 Second St
San Rafael, CA 94901

10-07-88
NET Pacific Log No: 4335 (-1,2)
Series No: 589/004
Client Ref: Written

Subject: Analytical Results for Two Water Samples Identified as "19051 Lake Chabot, Castro Valley, CA" Received 09-29-88.

Dear Mr. Conway:

Analysis of the samples referenced above has been completed. This report is written in confirmation of results transmitted verbally on October 7, 1988. Results are presented following this page.

Samples were delivered to the laboratory under documented chain-of-custody. On receipt, sample custody was transferred to NET Pacific sample control personnel who subsequently documented receipt and condition of the samples and placed them in secured storage at 4°C until analysis commenced.

In preparation for benzene, ethylbenzene, toluene, xylene ("volatile aromatics") and volatile hydrocarbons measurements, aliquots of samples were taken from core centers with stainless steel implements, immediately weighed, and sealed in septum-capped vials. Additionally, vials were prepared in essentially the same fashion to represent method blanks, commercial gasoline standards, gasoline-fortified sample spikes and sample replicates. Each vial was heated for a period of one hour at 90°C during which time light hydrocarbons (such as gasoline) were expected to equilibrate in distribution between sample and headspace. Headspace gases were subsequently analyzed by gas chromatography to measure total light hydrocarbons. Response of the chromatographic system to samples was compared with response to standards prepared with gasoline, and from reagent grade volatile aromatics for purposes of qualitative and quantitative interpretation.

Details of the analytical methodology are consistent with requirements specified in Methods "I" and "II" ("Total Fuel Hydrocarbons, Low-to-Medium Boiling Point Hydrocarbons" and "Total Fuel Hydrocarbons, Medium-to-High Boiling Point Hydrocarbons, respectively) in "Guidelines for Addressing Fuel Leaks," Regional Water Quality Control Board, San Francisco Bay Region, revised 1986; the preparation procedures used are described in detail in "Headspace Method," Method 5020 for volatile hydrocarbons, and "Sonication Extraction," Method 3550 for extractable hydrocarbons, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA, SW-846, 3rd edition, revised 1986.

Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

Kenneth A. Crawford
Project Chemist

Approved by:

Kim Hansard
Project Manager

/sm
Enc: Sample Custody Document

KEY TO ABBREVIATIONS

RL	:	Reporting limit.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
NA	:	Not analyzed; see cover letter for details.
ND	:	Not detected; the analyte concentration is less than the listed reporting limit.
NR	:	Not requested.
NTU	:	Nephelometric turbidity units.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
ug/filter	:	Concentration in units of micrograms of analyte per filter.
umhos/cm	:	Micromhos per centimeter.
*	:	See cover letter for details.

Parameter	Reporting Limit	Results	Units
SAMPLE DESCRIPTION: Boring 8	09-28-88	1300	
LAB NO.: (-16110)			
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	0.05	ND	mg/L
dil/conc factor HSHC		.	
Benzene	0.0005	0.0011	mg/L
Ethylbenzene	0.0015	ND	mg/L
Toluene	0.0005	ND	mg/L
Xylenes, total	0.0015	0.0019	mg/L
SAMPLE DESCRIPTION: Boring 9	09-28-88	1300	
LAB NO.: (-16111)			

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	0.05	ND	mg/L
dil/conc factor HSHC		.	
Benzene	0.0005	ND	mg/L
Ethylbenzene	.0015	ND	mg/L
Toluene	0.0005	ND	mg/L
Xylenes, total	.0015	ND	mg/L

THE COVER LETTER AND KEY TO ABBREVIATIONS ARE AN INTEGRAL PART OF THIS REPORT

LABORATORIES INC

TESTING, INC. Group

435 Tesconi Circle, Santa Rosa, CA 95401

CHAIN OF CUSTODY RECORD

PROJ. NO. | PROJECT NAME: 19051 Lake Chabot / Castro Valley

SAMPLERS: (Signature) Pat Conway

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTEX & TPH (Light)						REMARKS
	9/28	1:00 p.m.			Boring 8 ; Sample 1	1	x	x					
					" " " 2	1							
					" " " 3	1							
					Boring 9 " 1	1	x	x					
					" " " 2	1							
					" " " 3	1							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Pat Conway	9/29 8:28				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Judy Ridley	Date / Time 9/29 0828	Remarks 4335	

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NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Patrick J. Conway
John C. Hom & Assoc., Inc.
1618 Second St
San Rafael, CA 94901

Date: 03-02-90
NET Client Acct No: 589
NET Pacific Log No: 9739
Received: 02-14-90 1630

Client Reference Information

19101 Lake Chabot Road, Castro Valley; Project: 650.1

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

Enclosure(s)

Ref: 19101 Lake Chabot Road, Castro Valley; Project: 650.1

Parameter	Reporting Limit	Descriptor, Lab No. and Results: #1 6' 02-14-90 46324	#1 11.5' 02-14-90 46325	#1 16' 02-14-90 46326	#1 18.5' 02-14-90 46327	Units
PETROLEUM HYDROCARBONS		—	—	—	—	
VOLATILE (SOIL)		—	—	—	—	
DILUTION FACTOR *		1	1	1	1	
DATE ANALYZED		02-22-90	02-22-90	02-22-90	02-22-90	
METHOD GC FID/5030		—	—	—	—	
as Gasoline	1	ND	ND	ND	ND	mg/Kg
METHOD 8020		—	—	—	—	
Benzene	2.5	ND	ND	ND	4.9	ug/Kg
Ethylbenzene	2.5	ND	ND	ND	5.2	ug/Kg
Toluene	2.5	6.6	5.0	3.3	90	ug/Kg
Xylenes, total	2.5	4.0	ND	ND	52	ug/Kg

Parameter	Reporting Limit	Descriptor, Lab No. and Results: #2 6' 02-14-90 46328	#2 11' 02-14-90 46329	#2 16' 02-14-90 46330	#2 19.5' 02-14-90 46331	Units
PETROLEUM HYDROCARBONS		—	—	—	—	
VOLATILE (SOIL)		—	—	—	—	
DILUTION FACTOR *		1	1	1	1	
DATE ANALYZED		02-22-90	02-22-90	02-22-90	02-22-90	
METHOD GC FID/5030		—	—	—	—	
as Gasoline	1	ND	ND	ND	ND	mg/Kg
METHOD 8020		—	—	—	—	
Benzene	2.5	ND	2.5	ND	7.7	ug/Kg
Ethylbenzene	2.5	ND	ND	ND	5.1	ug/Kg
Toluene	2.5	17	7.3	4.9	55	ug/Kg
Xylenes, total	2.5	11	6.7	7.1	34	ug/Kg

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following, which supercedes the listed reporting limit.
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

* Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Patrick J. Conway
John C. Hom & Assoc., Inc.
1618 Second St
San Rafael, CA 94901

Date: 03-12-90
NET Client Acct No: 589
NET Pacific Log No: 9845
Received: 02-23-90 0800

Client Reference Information

19010 & 19051 Lake Chabot Rd, Castro Valley

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

Enclosure(s)

Client Acct: 589 Date: 03-12-90
Client Name: John C. Hom & Assoc., Inc. Page: 2
NET Log No: 9845

Ref: 19010 & 19051 Lake Chabot Rd, Castro Valley

Parameter	Reporting Limit	Descriptor, Lab No. and Results Well #1 02-22-90 1255 47026	Well #2 02-22-90 1300 47027	Well #3 02-22-90 1325 47028	Units
PETROLEUM HYDROCARBONS		--	--	--	
VOLATILE (WATER)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		03-06-90	03-06-90	03-06-90	
METHOD GC FID/5030		--	--	--	
as Gasoline	0.05	ND	ND	ND	mg/L
METHOD 602		--	--	--	
Benzene	0.5	ND	ND	ND	ug/L
Ethylbenzene	0.5	ND	ND	ND	ug/L
Toluene	0.5	ND	ND	ND	ug/L
Xylenes, total	0.5	ND	ND	ND	ug/L

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following, which supercedes the listed reporting limit.
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

* Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.

435 TESCONI CIRCLE
SANTA ROSA, CA 95401
TEL: 707-526-7200
FAX: 707-526-9623

CHAIN OF CUSTODY RECORD

PROJ. NO. | PROJECT NAME: 19101 & 19 051 Lake Chabot Road, Castro Valley, Ca from John C. Hom Associates

SAMPLERS: (Signature) NET.

9845

STA NO	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH Light	BTX & E					REMARKS
1	2/23/90	~~12:55~~ 13:25 A.M		✓	Well # 1	3	✓	✓					
2	2/23/90	~~13:00~~ 13:30 AM		✓	Well # 2	3	✓	✓					
3	2/23/90	~~Start~~ 13:25		✓	Well # 3	3	✓	✓					
					Trip Blank	1	✓	✓					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Patrick Conway	2/23 8:00 PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	2/23/90 0800		

- F4 -

9845

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Field Form

Formerly: ANATEC Labs, Inc.

Client: John C. Hom + Assoc

Address: 19051 + 19101 Lake Chabot Rd.

Date: 2/20/90

Purpose: well #1

Well Size 2" ID _____ OD in inches

Well Depth (top to bottom): 20'

Water Surface to Upper Well Casing 14 in feet. 6 ft of water

Surface Fuels Present. Yes _____, No ✓.

If present note hieght _____ in inches.

	Time	pH (S.U.)	Conductivity (umhos/cc)	Temp. (°C)
1st Bailing	11:20 - 11:25	6.9	3000	15°
2nd Bailing	11:35 - 11:40	6.9	2650	15°
3rd Bailing	11:45 - 11:50	6.9	2250	15°
4th Bailing				
5th Bailing*	12:55	7.0	2250	18°

Parameters: TPHC as Gasoline ✓ TPHC as Gasoline plus BTXE ✓

TPHC as Diesel _____ TPHC as Waste Oil _____ Other _____*

Samplers: _____

Comments/Calculations:

* sample readings 2/22/90

Purge

$\frac{20 - 14}{6}$ = 3 gals.

*See Chain-of-Custody Form for Parameters.

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
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Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Field Form

Client:

Address:

Date:

Purpose: well #2

Well Size 2 ID _____ OD in inches

Well Depth (top to bottom): 17'

Water Surface to Upper Well Casing 7.5 in feet. 9.5 ft. of water

Surface Fuels Present. Yes _____, No ✓.

If present note hieght _____ in inches.

	Time	pH (S.U.)	Conductivity (umhos/cc)	Temp. (°C)
1st Bailing	12:22 - 12:26	7.1	1750	15°
2nd Bailing	12:31 - 12:35	7.1	1750	15°
3rd Bailing	12:40 - 12:44	7.1	1740	15°
4th Bailing				
5th Bailing*	13:05	7.2	1840	16°

Parameters: TPHC as Gasoline ✓ TPHC as Gasoline plus BTXE ✓

TPHC as Diesel _____ TPHC as Waste Oil _____ Other _____*

Samplers: _____

Comments/Calculations:

* sample reading 2/22/90

Purge is 5 gal.

This water is dirtier than well #1 + " #3

*See Chain-of-Custody Form for Parameters.

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Field Form

Client:

Address:

Date:

Purpose: well # 3

Well Size 2" ID _____ OD in inches

Well Depth (top to bottom): 19'

Water Surface to Upper Well Casing 8.3 in feet. 11.7 ft. of water

Surface Fuels Present. Yes _____, No ✓.

If present note hieght _____ in inches.

	Time	pH (S.U.)	Conductivity (umhos/cc)	Temp. (°C)
1st Bailing	13:30 - 13:34	7.3	1380	15°
2nd Bailing	13:40 - 13:44	7.3	1390	15°
3rd Bailing	13:50 - 13:54	7.3	1360	15°
4th Bailing				
5th Bailing*	13:20	7.5	1200	16°

Parameters: TPHC as Gasoline ✓ TPHC as Gasoline plus BTXE ✓

TPHC as Diesel _____ TPHC as Waste Oil _____ Other _____*

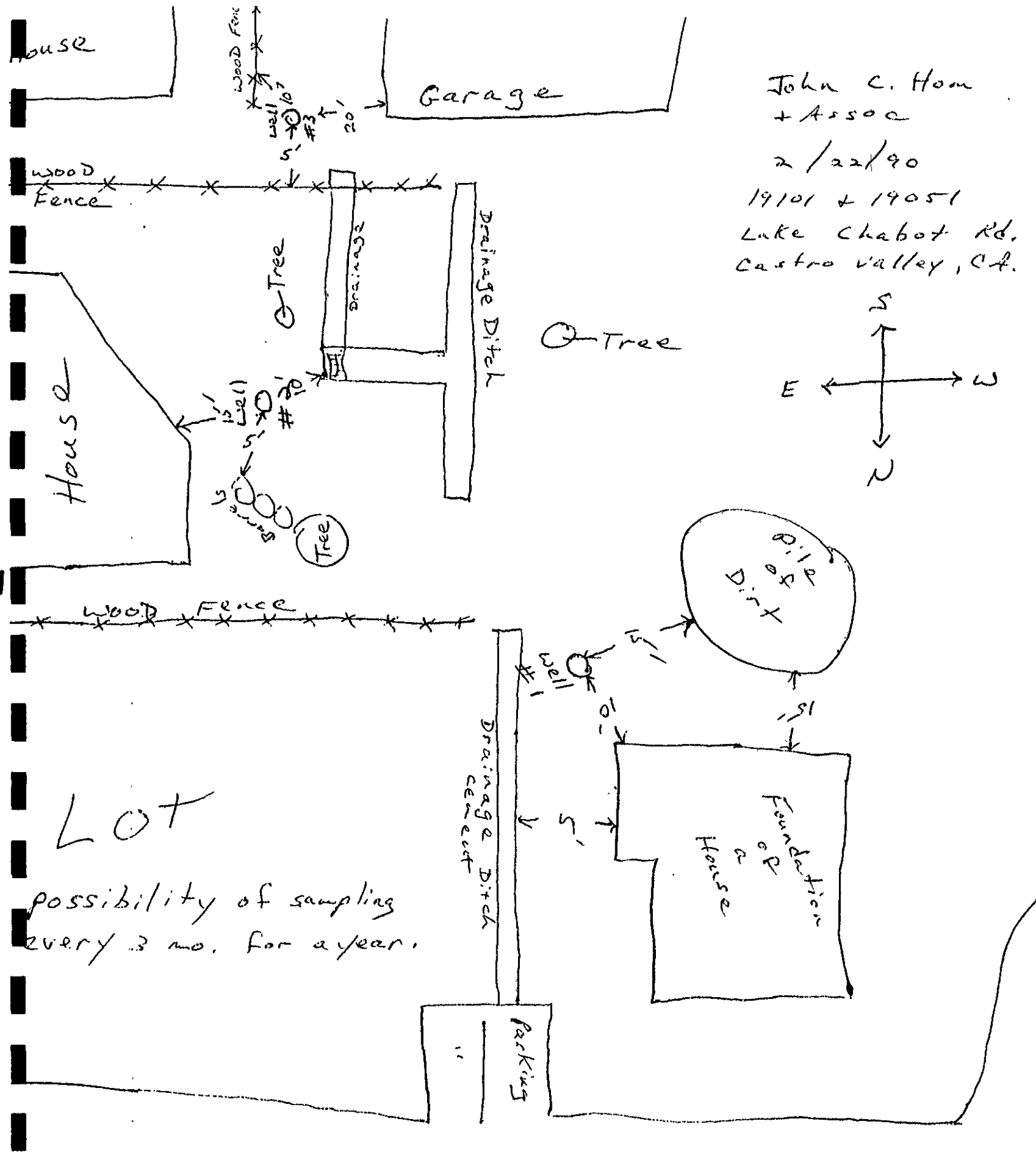
Samplers: _____

Comments/Calculations:

* Sample reading 2/22/90

Purge is 5.7
= 6 gal.

*See Chain-of-Custody Form for Parameters.



John C. Hom + Assoc

2/22/90

19101 & 19051 Lake Chabot Rd. Castro Valley, Ca.

S
E
W
N

LOT

possibility of sampling every 3 mo. for a year.

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

John Hom
John C. Hom & Assoc., Inc.
1618 Second St
San Rafael, CA 94901

Date: 08-13-90
NET Client Acct No: 589
NET Pacific Log No: 3073
Received: 07-27-90 1430

Client Reference Information

19101 & 19051 Lake Chabot Road

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

JS:rct
Enclosure(s)

NET Pacific, Inc.
435 TESCONI CIRCLE
SANTA ROSA, CA 95401
TEL: 707-526-7200
FAX: 707-526-9623

CHAIN OF CUSTODY RECORD

PROJ. NO. 650.1

PROJECT NAME 19101 Lake Chabot. Road Castro Valley, Ca

SAMPLERS (Signature)

Boring ~~STA NO~~	DATE	TIME	COMP	GRAB	Depth ~~STATION LOCATION~~	NO. OF CONTAINERS	BTX&E	Total Hydrocarbon Light	hold	REMARKS
1	2/14/90		✓		3½ feet	1			X	on hold
1	2/14/90		✓		5½ '	1			X	
1	2/14/90		✓		6'	1	✓	✓		
1	2/14/90		✓		10½ '	1			X	
1	2/14/90		✓		11½ '	1	✓	✓		
1	2/14/90		✓		15½ '	1			X	
1	2/14/90		✓		16'	1	✓	✓		
1	2/14/90		✓		18½ '	1	✓	✓		
2	2/14/90		✓		6'	1	✓	✓		
2	2/14/90		✓		10½ '	1			X	
2	2/14/90		✓		11'	1	✓	✓		
2	2/14/90		✓		15½	1			X	
2	2/14/90		✓		16'	1	✓	✓		
2	2/14/90		✓		19½	1	✓	✓		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Patrick Conway	2/14/90 4:20				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by. (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by: (Signature) J Schwartz	Date / Time 2/14/90 1630	Remarks 9739	

Client Acct: 589 Date: 03-02-90
Client Name: John C. Hom & Assoc., Inc. Page: 2
NET Log No: 9739

Ref: 19101 Lake Chabot Road, Castro Valley; Project: 650.1

Repeat Report

Parameter	Reporting Limit	Descriptor, Lab No. and Results #1 6' 02-14-90 46324	 #1 11.5' 02-14-90 46325	 #1 16' 02-14-90 46326	 #1 18.5' 02-14-90 46327	Units
PETROLEUM HYDROCARBONS		—	—	—	—	
VOLATILE (SOIL)		—	—	—	—	
DILUTION FACTOR *		1	1	1	1	
DATE ANALYZED		02-22-90	02-22-90	02-22-90	02-22-90	
METHOD GC FID/5030		—	—	—	—	
as Gasoline	1	ND	ND	ND	ND	mg/Kg
METHOD 8020		—	—	—	—	
Benzene	2.5	ND	ND	ND	4.9	ug/Kg
Ethylbenzene	2.5	ND	ND	ND	5.2	ug/Kg
Toluene	2.5	6.6	5.0	3.3	90	ug/Kg
Xylenes, total	2.5	4.0	ND	ND	52	ug/Kg

Parameter	Reporting Limit	Descriptor, Lab No. and Results #2 6' 02-14-90 46328	 #2 11' 02-14-90 46329	 #2 16' 02-14-90 46330	 #2 19.5' 02-14-90 46331	Units
PETROLEUM HYDROCARBONS		—	—	—	—	
VOLATILE (SOIL)		—	—	—	—	
DILUTION FACTOR *		1	1	1	1	
DATE ANALYZED		02-22-90	02-22-90	02-22-90	02-22-90	
METHOD GC FID/5030		—	—	—	—	
as Gasoline	1	ND	ND	ND	ND	mg/Kg
METHOD 8020		—	—	—	—	
Benzene	2.5	ND	2.5	ND	7.7	ug/Kg
Ethylbenzene	2.5	ND	ND	ND	5.1	ug/Kg
Toluene	2.5	17	7.3	4.9	55	ug/Kg
Xylenes, total	2.5	11	6.7	7.1	34	ug/Kg

Client No: 589
Client Name: John C. Hom & Assoc., Inc.
NET Log No: 3073

Date: 08-13-90
Page: 2

Ref: 19101 & 19051 Lake Chabot Road

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-1 07-27-90 1155 58667	MW-2 07-27-90 1115 58668	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			08-02-90	08-01-90	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	0.46	0.10	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			08-02-90	08-01-90	
Benzene		0.5	ND	ND	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	ND	ND	ug/L
Xylenes, total		0.5	3.1	ND	ug/L

Client No: 589 Date: 08-13-90
Client Name: John C. Hom & Assoc., Inc.
NET Log No: 3073 Page: 3

Ref: 19101 & 19051 Lake Chabot Road

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-3 07-27-90 1040 58669	Units
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-01-90	
METHOD GC FID/5030			--	
as Gasoline		0.05	0.10	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-01-90	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following, which supercedes the listed reporting limit.
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

* Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.

NET Pacific, Inc.

435 TESCONI CIRCLE
SANTA ROSA, CA 95401

TEL: 707-526-7200
FAX: 707-526-9623

CHAIN OF CUSTODY RECORD

3073

PROJ NO

PROJECT NAME JOHN HOM & ASSOCIATES
JOHN HOM (5100 TRACT)
19101 & 19051 LAKE CHABOT Rd.

SAMPLERS (Signature)
Emily J. Kuehner

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CON-TAINERS	8015	BTEX					REMARKS
MW 1	7/27/90	11:55		X	SEE MAP	3	X	X					ROUTINE TAT
MW 2	7/27/90	11:15		X		3	X	X					3 VOAS EACH WELL
MW 3	7/27/90	10:40		X		3	X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Emily J. Kuehner	7/27/90 14:30				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[illegible]	7/27/90 1430		

65

7/27/90

JOE & ERIK
JOHN C. HOM & ASSOCIATES
JOHN HOM

MW 1 2" casing

WELL DEPTH: 19.08'
DEPTH TO WATER: 14.42'
WATER COLUMN: 4.66'
ONE VOLUME: 0.76 GALLONS
TOTAL PURGE VOLUME: 3.04 GALLONS

collected 7/27/90 @ 11:55

	PURGE 1	PURGE 2	PURGE 3	PURGE 4
TEMP °C:	18.8	18.6	18.6	18.8
pH:	6.9	6.9	6.9	6.9
µMHOS:	1604	1572	1563	1538

MW:2 2" CASING

WELL DEPTH 17.50'
DEPTH TO H_2O 9.70'
H_2O COLUMN 7.80'
ONE VOLUME 1.27 GALLONS
TOTAL PURGE 5.09 GALLONS

COLLECTED 7/27/90 @ 11:15

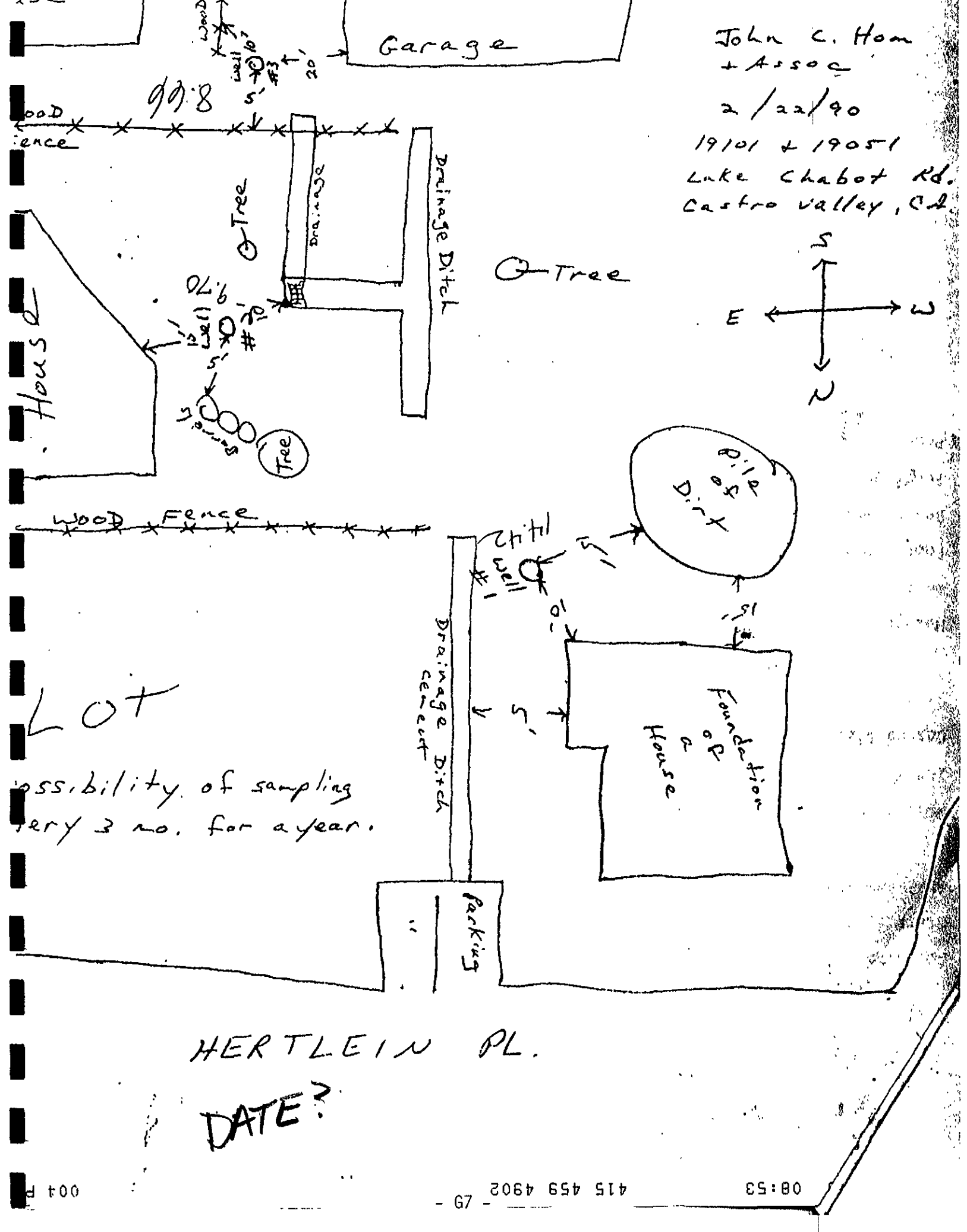
	PURGE 1	PURGE 2	PURGE 3	PURGE 4
TEMP	19.0	18.5	18.7	18.3
pH	7.1	7.1	7.2	7.2
MHOS	1593	1588	1595	1586

MW:3 2" CASING

WELL DEPTH 19.25
DEPTH TO H_2O 8.66
H_2O COLUMN 10.59
ONE VOLUME 1.72
TOTAL PURGE 6.9

COLLECTED 7/27/90 @ 10'40

	PURGE 1	PURGE 2	PURGE 3	PURGE 4
TEMP	18.4	18.3	18.2	17.9
pH	7.2	7.3	7.3	7.3
µMHOS	1379	1380	1383	1379



Lot

ossibility of sampling
very 3 mo. for a year.

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

Patrick J. Conway
John C. Hom & Assoc., Inc.
1618 Second St
San Rafael, CA 94901

02-28-89
NET Pacific Log No: 5598 (-1,2)
Series No: 589
Client Ref: Patrick J. Conway

Subject: Analytical Results for One Soil Sample and One Water Sample Received 02-23-89.

Dear Mr. Conway:

Analysis of the samples referenced above has been completed. This report is written in confirmation of results transmitted verbally on February 24, 1989. Results are presented following this page.

The samples were analyzed to measure purgeable aromatic compounds in accord with Method 602 "Purgeable Aromatics" in "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act," U.S. EPA, 40 CFR 136, 1984 and 8020 "Aromatic Volatile Organics" in "Test Methods for Evaluating Solid Waste," U.S. EPA SW-846, Volume 1A: Laboratory Manual Physical/ Chemical Methods, Third Edition, November 1986. The samples were also analyzed to measure volatile petroleum hydrocarbons by modified Method 8015 "Nonhalogenated Volatile Organics" in U.S. EPA SW-846 (ibid). The preparation procedures used are described in detail in the latter mentioned text under Method 5030, "Purge and Trap." Briefly, the method involved the sparging of a portion of sample with reagent helium in a closed system. Volatile compounds purged from the sample were swept onto a solid sorbent "trap" from which they were subsequently desorbed and passed onto the analytical column of a gas chromatograph; column effluent was monitored by a flame ionization detector (gasoline) and a photoionization detector (aromatics). Response of the chromatographic system to the sample was compared with responses generated by analysis of commercial gasoline and analytical grade standards for purposes of qualitative and quantitative interpretation.

Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

Kenneth A. Crawford
Project Chemist

Approved by:

Kim L. Hansard
Project Manager

/sm

KEY TO ABBREVIATIONS

mean	:	Average; the sum of the measurements divided by the total number of measurments.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample, unless noted otherwise.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed; see cover letter for details.
ND	:	Not detected; the analyte concentration is less than the listed reporting limit.
NR	:	Not requested.
NTU	:	Nephelometric turbidity units.
RL	:	Reporting limit.
RPD	:	Relative percent difference, $[V^1-V^2/V \text{ mean}]x100$.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
ug/filter	:	Concentration in units of micrograms of analyte per filter.
umhos/cm	:	Micromhos per centimeter.
*	:	See cover letter for details.

THE COVER LETTER AND KEY TO ABBREVIATIONS ARE AN INTEGRAL PART OF THIS REPORT

SAMPLE DESCRIPTION: 19051 Lk Chabot (water) 02-22-89
LAB NO.: (-22920)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	0.05	7.5	mg/L
PURGEABLE AROMATICS (602)			
Benzene	0.5	750	ug/L
Ethylbenzene	0.6	ND	ug/L
Toluene	0.5	520	ug/L
Xylenes,total	0.6	3100	ug/L

SAMPLE DESCRIPTION: 19051 Lk Chabot (soil) 02-22-89
LAB NO.: (-22921)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	10	84	mg/Kg
PURGEABLE AROMATICS (8020)			
Benzene	2.5	ND	ug/Kg
Ethylbenzene	3.0	ND	ug/Kg
Toluene	2.5	ND	ug/Kg
Xylenes, total	3.0	8400	ug/Kg

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Formerly: ANATEC Labs, Inc.

File under
650.1

Patrick J. Conway
John C. Hom & Assoc., Inc.
1618 Second St
San Rafael, CA 94901

07-11-89
NET Pacific Log No: 6881
Series No: 589
Client Ref: Conway

Subject: Analytical Results for "19051 Lake Chabot Rd, Castro Valley, Surface Pile" Received 06/22/89

Dear Mr. Conway:

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Submitted by:

Susan Joy Griffin
Group Leader
Gas Chromatography

Approved by:

William G. Rotz
Group Leader
Mobile Laboratory

/ml
Enc: Sample Custody Document

KEY TO ABBREVIATIONS

mean	:	Average; the sum of the measurements divided by the total number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample, unless noted otherwise.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
ND	:	Not detected; the analyte concentration is less than the listed reporting limit.
NR	:	Not requested.
NTU	:	Nephelometric turbidity units.
RL	:	Reporting limit.
RPD	:	Relative percent difference, $[V^1-V^2/V \text{ mean}]x100$.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
ug/filter	:	Concentration in units of micrograms of analyte per filter.
umhos/cm	:	Micromhos per centimeter.
*	:	See cover letter for details.

THE COVER LETTER AND KEY TO ABBREVIATIONS ARE AN INTEGRAL PART OF THIS REPORT

Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results (mg/Kg) Lot 3 #1 06-22-89 1355 (-29839)	Lot 3 #2 06-22-89 1355 (-29840)
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	10	ND	ND

Parameter	Reporting Limit (ug/Kg)	Descriptor, Lab No. and Results (ug/Kg) Lot 3 #1 06-22-89 1355 (-29839)	Lot 3 #2 06-22-89 1355 (-29840)
Benzene	25	ND	ND
Ethylbenzene	75	ND	ND
Toluene	25	ND	ND
Xylenes, total	75	ND	ND

NET Pacific, Inc.

435 TESCONI CIRCLE
SANTA ROSA, CA 95401
TEL: 707-526-7200
FAX: 707-526-9623

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
128.12	19051 Lake Chabot Rd, Castro Valley, Ca

SAMPLERS (Signature)
John C. Hom Associates, Attn Patrick Conway

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	B.T.X.&E	TPH (Light)	REMARKS
	6/22	1:55		#1	~~Lake Chabot Rd~~ Surface Stockpile, Lot 3	1	✓	✓	
	6/22	1:55		#2	Surface Stockpile, Lot 3	1	✓	✓	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Patrick Conway	6/23/89 8:35				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		deborah dow	6/23/89 0835	# 6881 - 589	

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94566 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

(1) LOCATION OF PROJECT 19149 LAKE CHABOT RD. CASTRO VALLEY

(2) CLIENT
Name FORENSIC C. MWUE
Address 704 MISSION AVE Phone 415 4570220
City SAN RAFAEL CA. Zip 94901

(3) APPLICANT
Name _____
Address _____ Phone _____
City _____ Zip _____

(4) DESCRIPTION OF PROJECT
Water Well Construction ___ Geotechnical ___
Cathodic Protection ___ Well Destruction X

(5) PROPOSED WATER WELL USE
Domestic ___ Industrial ___ Irrigation ___
Municipal ___ Monitoring ___ Other _____

(6) PROPOSED CONSTRUCTION
Drilling Method:
Mud Rotary ___ Air Rotary ___ Auger ___
Cable ___ Other _____

WELL PROJECTS
Drill Hole Diameter ___ in. Depth(s) ___ ft.
Casing Diameter ___ in. Number
Surface Seal Depth ___ ft. of Wells ___
Driller's License No. _____

GEOTECHNICAL PROJECTS
Number ___
Diameter ___ in. Maximum Depth ___ ft.

(7) ESTIMATED STARTING DATE 3/89
ESTIMATED COMPLETION DATE 3/89

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

APPLICANT'S SIGNATURE _____ Date 3/10/89

FOR OFFICE USE

PERMIT NUMBER 89120 and 89121
LOCATION NUMBER 3S/2W 4B80 and 4B81

Approved Wyman Hong Date 3 Mar 89
Wyman Hong

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Notify this office (484-2600) at least one day prior to starting work on permitted work and before placing well seals.
3. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or bore hole logs and location sketch for geotechnical projects. Permitted work is completed when the last surface seal is placed or the last boring is completed.
4. Permit is void if project not begun within 90 days of approval date.

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

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie, or equivalent.

(E.) WELL DESTRUCTION. See attached.

91987

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545 *(415) 783-6960*

TAL

DATE: 9/8/88

LOG NO.: 6350

DATE SAMPLED: 9/5/88

DATE RECEIVED: 9/6/88

CUSTOMER: Hertlein Electric, Inc.

REQUESTER: Henry Hertlein

PROJECT: Tract 5100

	Sample Type: Water		
		No. 1	
Method and Constituent	Units	Concentration	Detection Limit
DHS Method:			
Total Petroleum Hydrocarbons as Gasoline	ug/l	< 7	7
Modified EPA Method 8020:			
Benzene	ug/l	< 0.1	0.1
Toluene	ug/l	< 0.1	0.1
Xylenes	ug/l	< 0.2	0.2
Ethyl Benzene	ug/l	< 0.1	0.1

Hugh R. McLean
Supervisory Chemist

HRM:mln

DISTRIBUTION

Three Copies Submitted

cc: Henry Hertlein
19051 Lake Chabot Road
Castro Valley, California 94546

cc: Alameda County Environmental Health Dept
Division of Hazardous Material
Attention: Scott Seery
80 Swan Way, Room 200
Oakland, California 94621

attachment