HARZA *Consulting Engineers and Scientists*

August 17, 1994

Mr. Dave Johnson
Mills College
5000 MacArthur Boulevard
Oakland, CA 94613

Re: Monitoring Well Installation and Ground Water Sampling Report
Mills College Corporation Yard, Oakland, California
Project No.: K275-H

Dear Mr. Johnson:

Enclosed please find a report for the above referenced project. We are submitting copies to Juliet Shin of the Alameda County Department of Environmental Health and to the Regional Water Quality Control Board on your behalf.

Should you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Harza Consulting Engineers and Scientists

Dennis Laduzinsky, C.E.G.
Head, Geology and Hydrogeology

DL:lk\encl.
Copies: Addressee (2)
Ms. Juliet Shin (ACDEH - 1)
RWQCB (1)

K275-H reports\259921
08-17-94

425 Roland Way Oakland, California 94621
Tel: (510) 568-4001 Fax: (510) 568-2205

255 North Market, Suite 248 San Jose, California 95110
Tel: (408) 288-8312 Fax: (510) 568-2205

Monitoring Well Installation and Ground Water Sampling Report

Mills Hall/Toyon Meadow
Oakland, California

August 17, 1994

Prepared For:

Mills College
5000 MacArthur Boulevard
Oakland, CA 94613

Prepared By:

Harza Consulting Engineers and Scientists
425 Roland Way
Oakland, CA 94621

Derek D. Armentrout
Staff Chemist

Dennis Laduzinsky, C.E.G
Head, Geology and Hydrogeology

K275-G reports\25964t
08-17-94

HARZA

TABLE OF CONTENTS

Monitoring Well Installation and Ground Water Sampling Report

Mills Hall/Toyon Meadow
Oakland, California

1.0 INTRODUCTION

This report presents the results of the monitoring well installation and ground water sampling performed at the Mills Hall/Toyon Meadow site in Oakland, California. The project location is shown on the Site Location Map (Figure 1).

The purpose of the investigation has been to evaluate the extent of petroleum hydrocarbons in ground water related to a previously removed underground fuel storage tank on-site. The investigation included installation of a new ground water monitoring well to replace well MHW-1, which was destroyed under permit by a licensed contractor working directly for Mills College. This investigation was performed in response to the March 28, 1994 letter from the Alameda County Health Department of Environmental Health (ACDEH).

2.0 BACKGROUND

A small capacity fuel-oil underground storage tank (UST) was removed from the parking lot of the former Mills Kitchen building in June 1989. This area is now developed as an open lawn and landscape area referred to as Toyon Meadow. Elevated levels of total petroleum hydrocarbons as diesel (TPHd) were detected in soil samples collected from the excavation at the time of removal, and approximately 250 cubic yards of soil were excavated from the vicinity of the former tank and disposed off-site.

Harza, formerly Kaldveer Associates, conducted a soil and ground water quality investigation at the site in 1989. A drilling and soil sampling program was initiated to determine the areal extent of impact. TPHd was detected in soil samples at a depth of 12 to 15 feet below ground surface (bgs) for a distance of at least 60 feet downgradient of the former tank location.

Monitoring well MHW-1 was installed in July 1989 approximately 50 feet downgradient from the former tank location, as shown in Figure 2. Two additional wells (MHW-2 and MHW-3) were installed in June 1991. Ground water monitoring has been performed intermittently since June 1991.

TPHd concentrations have been below detection limits to 0.09 milligrams per liter (part per million or ppm), in former well MHW-1 and 0.1 to 3.2 ppm in well MHW-2. TPHd has not been detected in well MHW-3. Benzene, toluene, ethylbenzene, and xylenes (BTEX) have not been detected in any of the three wells. The measured ground water flow direction has consistently been toward the southwest.

During recent landscape renovation activities, monitoring well MHW-1 was destroyed under permit by a licensed drilling contractor.

3.0 SCOPE OF SERVICES

The work performed during this investigation was based on the ACDEH letter of March 28, 1994 and our previous experience on-site. The investigation consisted of the following tasks:

- Install one ground water monitoring well to a depth of 20 feet bgs in the approximate location of the former well MHW-1.
- Survey the new well-top elevation relative to the existing wells MHW-2 and MHW-3, and measure ground water levels in all wells for use in developing a ground water elevation contour map.
- Develop the new well and collect ground water samples from the new well and the two existing wells at the site.
- Analyze the ground water samples for TPHd using EPA Method 3550/GC-FID, and for purgeable aromatic compounds using EPA Method 8020.
- Prepare this report.

4.0 FIELD INVESTIGATION

4.1 Well Installation

On May 13, 1994, well MHW-1A was installed in the approximate location of the destroyed well MHW-1. The well was installed by a licensed drilling contractor using a truck-mounted drill rig equipped with 8-inch diameter hollow-stem augers in accordance with ACDEH

guidelines. Soils encountered during drilling were classified in the field by visual examination in accordance with the Unified Soil Classification System. The boring log is included in Appendix A.

The soils encountered during drilling generally consisted of sands with silt and clay. Ground water was encountered at a depth of approximately 13 feet bgs at the time of drilling, and stabilized at approximately 12 feet. The well was completed at a depth of approximately 20 feet using 2-inch I.D. Schedule 40, threaded, PVC casing. A 0.020-inch slotted well screen was installed between the depths of approximately 20 to 5 feet. A filter pack consisting of washed #2 sand was placed in the annular space around the well casing to a level approximately six inches above the slotted screen. One foot of bentonite above the sand pack followed by neat cement to the ground surface, completed the well construction. Well construction details are presented on the boring log (Appendix A).

4.2 Well Development and Sampling

Monitoring well MHW-1A was developed on May 18, 1994 using a bailer. Development consisted of the rapid removal of approximately ten casing volumes of water from the well.

The three monitoring wells were sampled on May 20, 1994. Following an initial ground water level measurement, a minimum of three well-casing volumes of water were purged from each well using a Teflon bailer. Purging consisted of the gradual removal of water from the well until physical parameters such as pH, temperature, and electrical conductivity had stabilized. Following purging, samples were decanted from the bailer into appropriate sample containers, labeled, and placed in refrigerated storage for transport to the laboratory under chain of custody control. The bailer was washed with trisodium phosphate (TSP) and rinsed with deionized water between wells to reduce the potential for cross contamination. Purge water was contained in 55-gallon drums. Monitoring well development and sampling logs are attached to this report in Appendix A.

Measurements of pH in the wells, collected during well purging, were uncharacteristically low and the pH values showed large fluctuations as the probe was placed in each sample. The pH meter was recalibrated, but this did not correct the problem. It is therefore believed that the pH probe was not functioning properly, and the measured pH values are not indicative of actual ground water pH.

4.3 Ground Water Gradient

Well-top elevations were surveyed to a common datum and water levels were measured in each well. Well-top elevations, depth to water, and calculated water-surface elevations are presented in Table 1. These data are used to generate the Ground Water Elevation Contour map presented on Figure 2. Ground water elevation data collected during this investigation indicate a general **southwesterly flow** at an approximate gradient of 0.07 foot per foot.

5.0 ANALYTICAL RESULTS

5.1 Laboratory Procedures

Ground water samples were analyzed by American Environmental Network (AEN) of Pleasant Hill, California. AEN is certified by the California Environmental Protection Agency (Cal-EPA) for the analyses performed. Samples from each well were analyzed for TPHd using EPA Method 3550/GC-FID, and for purgeable aromatic compounds using EPA Method 8020.

5.2 Analytical Results

The results of the chemical analyses are presented in Table 2 and laboratory analytical reports are attached to this report in Appendix B. A historical summary of ground water sample analytical results is also included in Table 2.

TPHd was detected in the water sample from well MHW-2 at a concentration of 0.2 ppm. TPHd was not detected in the water samples from wells MHW-1A and MHW-3. BTEX were not detected in any of the wells. No visible product or sheen was observed during sampling. The analytical results are generally consistent with historical results (Table 2).

6.0 RECOMMENDATIONS

We recommend that the frequency of ground water monitoring at the Mills Hall/Toyon Meadow site be reduced to a semiannual schedule. The purpose of ground water monitoring is to determine if ground water quality is changing and if contaminants are migrating off site. It is our opinion that a semiannual schedule will be sufficient to meet this intent. Ground water quality in site wells has been relatively consistent since monitoring was initiated in June 1991, and no trends are apparent (see Table 2). The ground water flow direction has also been relatively consistent. Ground water sample analysis, development of ground water contours, and preparation and submittal of reports would be on a semiannual basis.

A semiannual sampling schedule would be maintained contingent on ground water quality continuing to exhibit little variation, and on contaminants remaining on site. If contaminant concentrations increase significantly, or if TPHd or BTEX is detected in the downgradient wells (MHW-1A and MHW-3) in significant concentrations, a quarterly sampling schedule would be resumed.

7.0 LIMITATIONS

The purpose of a geologic/hydrogeologic study is to reasonably characterize existing site conditions based on the geology/hydrogeology of the area. In performing such a study, a balance must be struck between a reasonable investigation into the site conditions and an exhaustive analysis of each conceivable condition. The following paragraphs discuss the assumptions and parameters under which such a study is conducted.

No investigation is thorough enough to detect every geologic/hydrogeologic condition of interest at a given site. If conditions have not been identified during the study, such a finding should not therefore be construed as a guarantee of the absence of such conditions at the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed.

We are unable to report on or accurately predict events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces. We cannot assume responsibility for conditions we were not authorized to evaluate, or conditions not generally recognized as predictable when services were performed.

Geologic/hydrogeologic conditions may exist at the site that cannot be identified solely by visual observation. Where subsurface exploratory work was performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.

TABLES

Table 1
GROUND WATER ELEVATION DATA
Monitoring Well Installation and
Ground Water Sampling Report
Mills Hall/Toyon Meadow, Oakland, California
(all values reported in feet)

Monitoring Well	Relative Well-Top Elevation[1]	Depth to Water	Ground Water Elevation
June 1991:			
MHW-1	99.53	11.92	87.61
MHW-2	100.00	10.32	89.68
MHW-3	98.01	12.45	85.56
March 1992:			
MHW-1	99.53	9.95	89.58
MHW-2	100.00	8.26	91.84
MHW-3	98.01	11.12	86.89
October 1992:			
MHW-1	99.53	12.98	86.55
MHW-2	100.00	11.19	88.81
MHW-3	98.01	12.79	85.22
May 1994:			
MHW-1A*	99.50	11.64	87.86
MHW-2	100.00	9.94	90.06
MHW-3	98.04	12.60	85.44

NOTES

1: Well-top elevations are based on an arbitrary datum of 100.00 feet at MHW-2.

*: Well MHW-1 was replaced by MHW-1A on May 2, 1994 prior to the monitoring event.

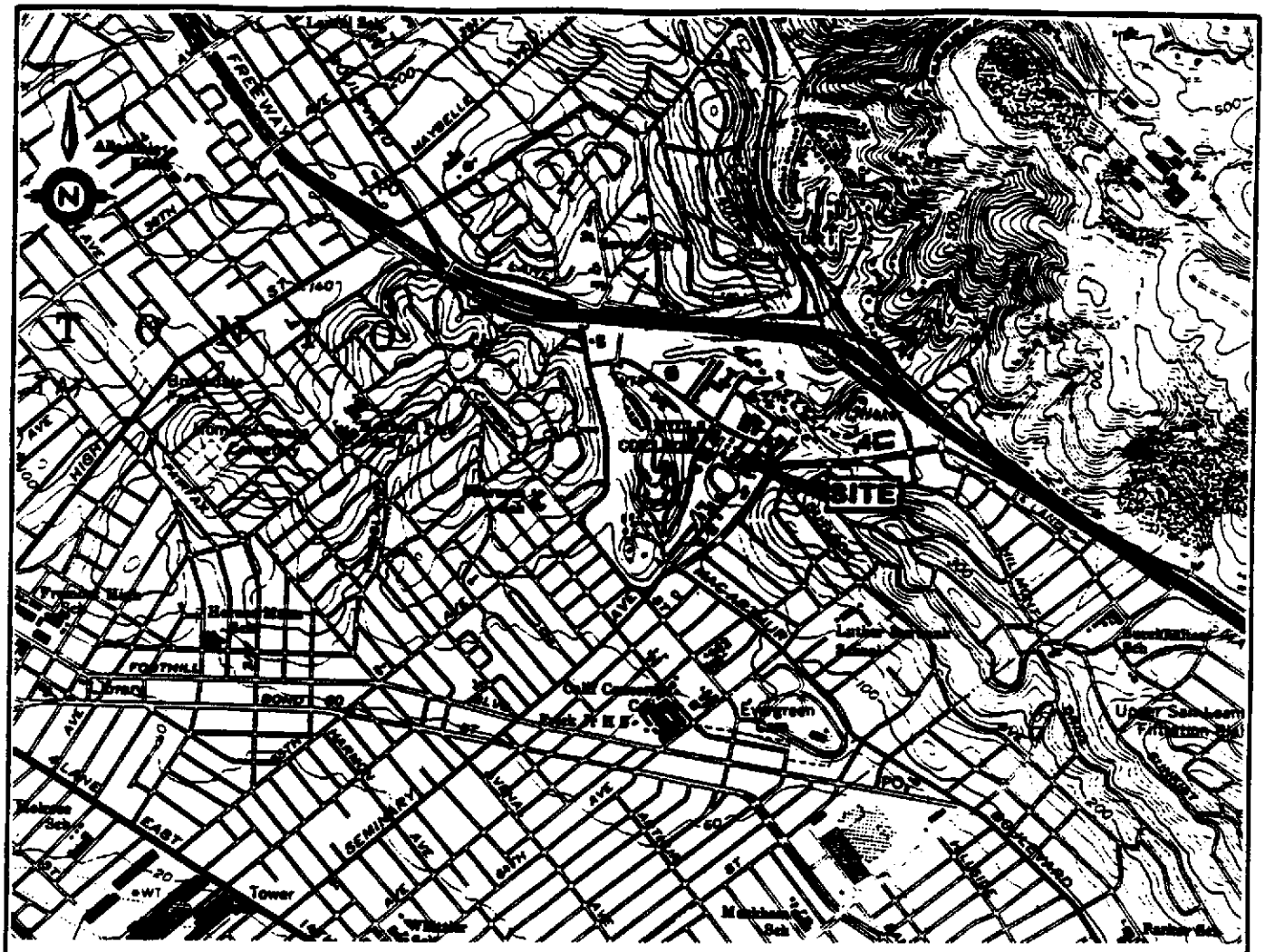
Table 2
SUMMARY OF GROUND WATER SAMPLE ANALYSES
Monitoring Well Installation and
Ground Water Sampling Report
Mills Hall/Toyon Meadow, Oakland, California
(reported in parts per million, mg/l)

Sample Date	TPH Diesel	TPH Oil	Benzene	Toluene	Ethylbenzene	Xylenes
MHW-1:						
June 1991	0.06	ND	ND	ND	ND	ND
March 1992	ND	NT	ND	ND	ND	ND
October 1992	0.09	ND	ND	ND	ND	ND
May 1994*	ND	NT	ND	ND	ND	ND
MHW-2:						
June 1991	3.2	ND	ND	ND	ND	ND
March 1992	0.1	NT	ND	ND	ND	ND
October 1992	0.61	ND	ND	ND	ND	ND
May 1994	0.2	NT	ND	ND	ND	ND
MHW-3:						
June 1991	ND	ND	ND	ND	ND	ND
March 1992	ND	NT	ND	ND	ND	ND
October 1992	ND	ND	ND	ND	ND	ND
May 1994	ND	NT	ND	ND	ND	ND

NOTES

TPH: Total petroleum hydrocarbons
ND: Not detected
NT: Not tested
*: Well MHW-1 was replaced by MHW-1A on May 2, 1994 prior to the monitoring event.

FIGURES



Base: U.S.G.S. Oakland East 7.5 Minute Quadrangle (Topographic)

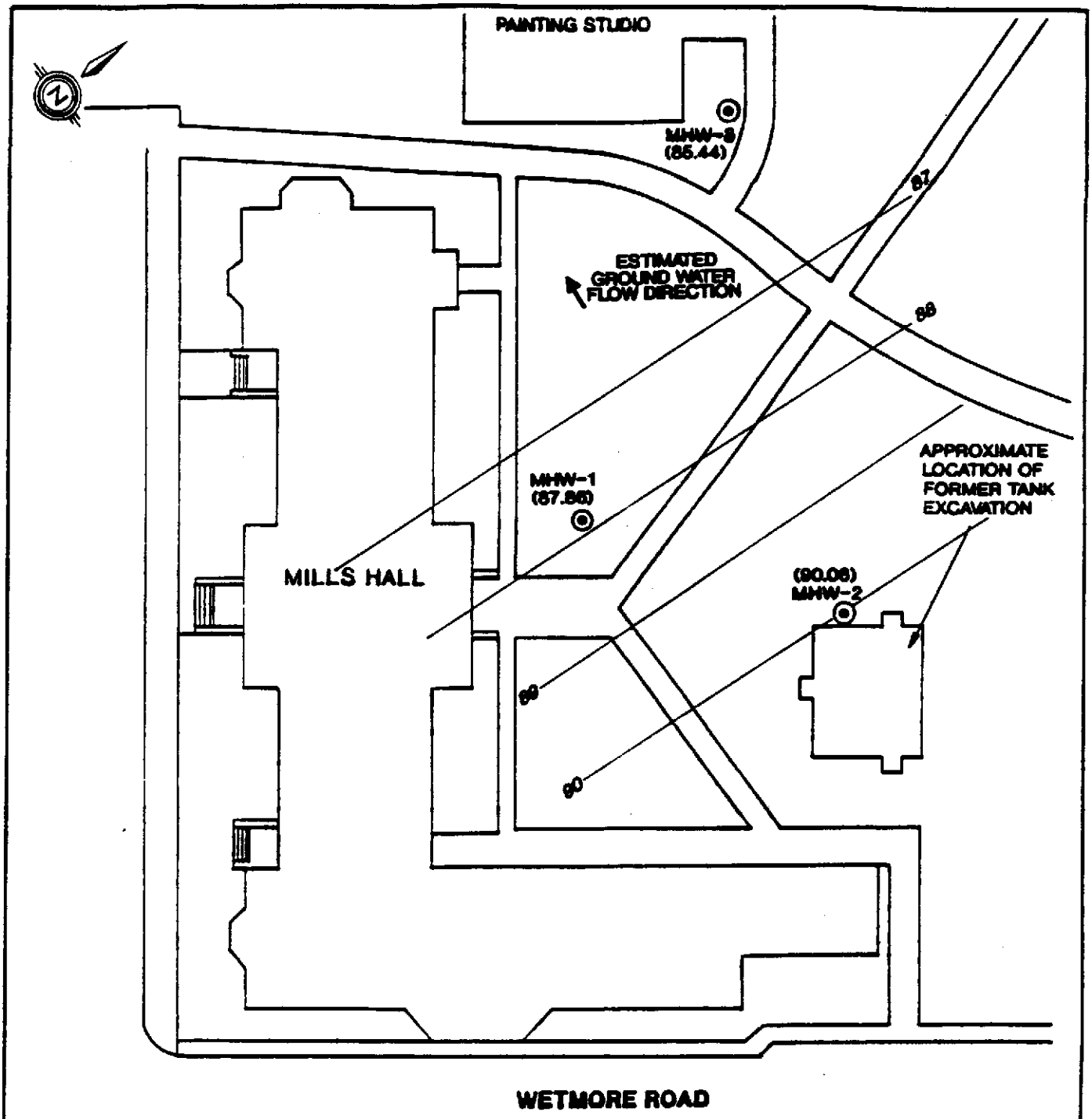
HARZA

Consulting Engineers and Scientists

SITE VICINITY MAP

MILLS HALL/TOYON MEADOW
Oakland, California

PROJECT NO.	DATE	
K275-G	June, 1994	Figure 1



LEGEND

MHW-1 ⊙ APPROXIMATE LOCATION OF MONITORING WELL WITH RELATIVE GROUND WATER ELEVATION

87 —— GROUND WATER CONTOUR 5/20/94

APPROXIMATE SCALE IN FEET

0 40 80

BASE: Provided by Mills College, Dated 3/88

HARZA

Consulting Engineers and Scientists

LOCATION OF GROUND WATER MONITORING WELLS

MILLS HALL/TOYON MEADOW

Oakland, California

PROJECT NO.	DATE	Figure 2
K275-G	June 1994	

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions		grf	ltr	Description
Coarse Grained Soils	Gravel And Gravely Soils		GW	Well-graded gravels or gravel sand mixtures, little or no fines
			GP	Poorly-graded gravels or gravel sand mixture, little or no fines
			GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	Sand And Sandy Soils		SW	Well-graded sands or gravelly sands, little or no fines
			SP	Poorly-graded sands or gravelly sands, little or no fines
			SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, and-clay mixtures

Major Divisions		grf	ltr	Description
Fine Grained Soils	Silts And Clays LL < 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 silts and organic silt-clays of low plasticity
	Silts And Clays LL > 50		MH	Inorganic silts, micaceous or diatomaceous fine or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
Highly Organic Soils			PT	Peat and other highly organic soils

SYMBOLS

- Standard penetration split spoon sample
- Modified California (Porter) sample
- Shelby tube sample
- Water level observed in boring
- Stable water level
- Blank casing
- Screened Casing
- Cement grout
- Bentonite
- Filter Pack

Visual Relative Moisture Content
Increasing Moisture Content

Dry
Damp
Moist
Wet
Saturated

Note: The lines separating strata on the logs represent approximate boundaries only. No warranty is provided as to the continuity of soil strata between borings. Logs represent the soil section observed at the boring location on the date of drilling only.

HARZA
Consulting Engineers & Scientists

BORING LOG LEGEND

MILLS HALL ADDITIONAL INVESTIGATION
Oakland, California

PROJECT NO.	DATE	FIGURE NO
K275G	June 1994	A-1

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	DA
DEPTH TO GROUNDWATER	11.8 Feet	BORING DIAMETER	8-inch	DATE DRILLED	5/13/94

DESCRIPTION AND CLASSIFICATION		DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
DESCRIPTION AND REMARKS	SOIL TYPE						
FILL: CLAYEY SAND (SC), black, damp, fine- to coarse-grained, with gravel and construction debris.							
SILT (ML), multicolored with brown, orange, gray, damp, dense, with sands (fine- to coarse-grained).		5		15	0		
SILTY SAND (SM), brown, some orange, black, and gray, damp, some clay and gravel.		10		9	0		
SAND (SW), multicolored, wet, with gravel (angular to 1/2" diameter).		15		32	0		
CLAYEY SILT (ML), orangish-brown, wet, trace sand (fine- to coarse-grained).		20					

Bottom of Boring = 20.5 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. PID readings in parts per million (ppm).
3. Well Construction Details
   - 2-inch PVC, Schedule 40 solid and slotted (0.020-inch) casing
   - 2/12 washed sand filter pack
   - bentonite pellets plug
   - cement grout surface seal with steel, traffic rated cover

HARZA
Consulting Engineers & Scientists

EXPLORATORY BORING LOG

MILLS HALL ADDITIONAL INVESTIGATION
Oakland, California

PROJECT NO.	DATE	BORING NO
K275G	June 1994	MHW-1A

WELL DEVELOPMENT LOG

Project Name: Mills College - Mills Hall
Project Number: K275-G
Well Number: MHW-1A
Well Location:

Date: 5/18/94
Sampler: Derek Armentrout
Weather: PTLY CLDY, 70

Well Construction

Date Completed: 5/13/94
Total Depth of Well: 19.9'
Diameter: 2"
Well Elevation and Reference:

Sampling Equipment & Cleaning

Sampler Type: Teflon bailer
Method of Cleaning: TSP wash/DI rinse
Pump/Bailer Type: Teflon bailer
Method of Cleaning: TSP wash/DI rinse
pH Meter: triple tester
Conductivity Meter: "
Comments:

Ground Water Levels:

Initial: 11.81
Final: 11.90
Reference Point: TOC
Well Volume of Water: 1.3 gal

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F)	Spec. Conductance (µmhos/cm) Field	Spec. Conductance (µmhos/cm) @ 25°C	Color/ Turbidity	Odor
1225	start	0						
1234		2.5 gal	6.90	70.1	4820		BROWN/OPAQUE	NONE
1240		5	6.75	67.7	4440		"	"
1248		7.5	6.67	68.6	4360		"	"
1257		10	6.67	65.8	4360		"	"

Total Discharge: 10 gal
Casing Volumes Removed: 7
Method of Disposal: drummed on site

Comments:

HARZA
Consulting Engineers and Scientists

WATER SAMPLE LOG

Project No.	Date	Figure

WATER SAMPLE LOG

Project Name: Mills College - Mills Hall
Project Number: K275-G
Well Number: MHW-1A
Well Location:

Date: 5/20/94
Sampler: Derek Armentrout
Weather:

Well Construction

Date Completed:
Total Depth of Well: 19.9
Diameter: 2"
Well Elevation and Reference:

Sampling Equipment & Cleaning

Sampler Type: Teflon bailer
Method of Cleaning: TSP wash/DI rinse
Pump/Bailer Type: Teflon bailer
Method of Cleaning: TSP wash/DI rinse
pH Meter: triple tester
Conductivity Meter:
Comments:

Ground Water Levels:

Initial: 11.64
Final: 11.82'
Reference Point: TOC
Well Volume of Water: 1.3 gal

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F)	Spec. Conductance (µmhos/cm) Field	Spec. Conductance (µmhos/cm) @ 25°C	Color/ Turbidity	Odor
	start	0						
13:27		2 gal	5.57	67.0	9180		light brown/ high	None
13:32		3 gal	5.39	64.7	8860		"	"
13:40		5 gal	4.86	64.3	9200		"	"
13:43			sampled					

Total Discharge: 5 gallons
Casing Volumes Removed:
Method of Disposal: drummed on site

Comments:

HARZA
Consulting Engineers and Scientists

WATER SAMPLE LOG

Project No.	Date	Figure

WATER SAMPLE LOG

Project Name: Mills College - Mills Hall
Project Number: K275 - 6
Well Number: MHW-3
Well Location:

Date: 5/20/94
Sampler: Derek Armentrout
Weather:

Well Construction

Date Completed:
Total Depth of Well: 18.5'
Diameter: 2"
Well Elevation and Reference:

Sampling Equipment & Cleaning

Sampler Type: Teflon bailer
Method of Cleaning: TSP wash/DI rinse
Pump/Bailer Type: Teflon bailer
Method of Cleaning: TSP wash/DI rinse
pH Meter: triple tester
Conductivity Meter: "
Comments:

Ground Water Levels:

Initial: 12.60'
Final: 12.88'
Reference Point: TOC
Well Volume of Water: 1 gal

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F)	Spec. Conductance (µmhos/cm) Field	Spec. Conductance (µmhos/cm) @ 25°C	Color/ Turbidity	Odor
1229	start	0						
1235		1.5	5.20	69.2	7380		ORANGE-GRAY/HIGH	NONE
1245		3	5.44	69.0	5870		"	"
1252		4	5.52	63.2	5740			

Total Discharge:
Casing Volumes Removed:
Method of Disposal: drummed on site

Comments:

HARZA
Consulting Engineers and Scientists

WATER SAMPLE LOG

Project No.	Date	Figure

APPENDIX B

Laboratory Analytical Reports

HARZA

HARZA

SAMPLE ID: MHW-2
AEN LAB NO: 9405268-02
AEN WORK ORDER: 9405268
CLIENT PROJ. ID: K275-G

DATE SAMPLED: 05/20/94
DATE RECEIVED: 05/20/94
REPORT DATE: 06/08/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	06/01/94
Toluene	108-88-3	ND	0.5	ug/L	06/01/94
Ethylbenzene	100-41-4	ND	0.5	ug/L	06/01/94
Xylenes, total	1330-20-7	ND	2	ug/L	06/01/94
#Extraction for Diesel/Oil	EPA 3510	-		Extrn Date	05/23/94
TPH as Diesel	GC-FID	0.2 *	0.05	mg/L	05/25/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9405268

CLIENT PROJECT ID: K275-G

Quality Control Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

The following abbreviations are found throughout the QC report:

ND = Not Detected at or above the reporting limit
RPD = Relative Percent Difference
< = Less Than

QUALITY CONTROL DATA

DATE EXTRACTED: 05/23/94
DATE ANALYZED: 05/25/94
CLIENT PROJ. ID: K275-G

AEN JOB NO: 9405268
SAMPLE SPIKED: DI WATER
INSTRUMENT: C

METHOD SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATER
METHOD: EPA 3510 GCFID

ANALYTE	Spike Added (mg/L)	Average Percent Recovery	RPD
Diesel	2.04	84	4

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Diesel	(63-109)	10

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

CLIENT PROJ. ID: K275-G

AEN JOB NO: 9405268

INSTRUMENT: F

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8020
(WATER MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION		SURROGATE RECOVERY (PERCENT)
	Sample Id.	Lab Id.	Fluorobenzene
05/31/94	MHW-1	01	95
06/01/94	MHW-2	02	100
05/31/94	MHW-3	03	95

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Fluorobenzene	(70-115)

QUALITY CONTROL DATA

DATE ANALYZED: 05/31/94
SAMPLE SPIKED: LCS
CLIENT PROJ. ID: K275-G

AEN JOB NO: 9405268
INSTRUMENT: F

LABORATORY CONTROL SAMPLE
METHOD: EPA 8020
(WATER MATRIX)

ANALYTE	Spike Added (ug/L)	Percent Recovery
Benzene	10.0	86
Toluene	34.7	97

CURRENT QC LIMITS

Analyte	Percent Recovery
Benzene	(65-122)
Toluene	(67-124)

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

R-3,5-2

Page 1 of 1

Lab Job # 9405268

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name	Location
K275-G	MILLS - MILLSHALL	OAKLAND

Sampler's Name (printed): DEREK ARMENTROUT, HUGO HSU

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -	8020-BTEX	Remarks
MHW-1	01A-D	5/20/94		✓	2 VOA, 2 L Amber	X							X		
MHW-2	02A-D	↓		✓	↓	X							X		
MHW-3	03A-D	↓		✓	↓	X							X		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	5/20/94 1445	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	5/20/94 18:45	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	5/20/94 1845	Jai L Pruitt

Requested Turnaround Time: STANDARD

Kaldveer Assoc. Contact: DEREK ARMENTROUT

Remarks:

Ship To: _____

Attention: _____

Phone No: _____

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation