

PROJECT
ST. 12-18-94

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**Soil and Groundwater Investigation
and Quarterly Monitoring Report**

**Site at
Douglas Parking
1721 Webster Street
Oakland, CA 94612**

prepared by

**Gen Tech Environmental
1936 Camden Avenue
San Jose, California**

12-2-94

December 2, 1994
Project No. 9432

Douglas Parking
1721 Webster Street
Oakland, CA 94612


Attn: Mr. Leland Douglas


Re: **Soil and Groundwater Investigation**
Douglas Parking, 1721 Webster Street, Oakland, CA

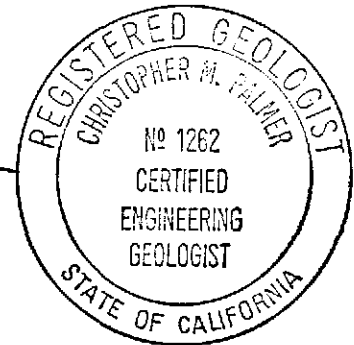
Dear Mr. Douglas,

Gen Tech Environmental, Inc. has completed the Soil and Groundwater ^{cohabit} for the above referenced site. Please call if you have any questions.

Sincerely,
Gen Tech Environmental, Inc.


Stuart Solomon
Principal


Christopher M. Palmer
C. E. G. 1262



attachments

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Introduction

Three gasoline underground storage tanks were removed August, 1992 by Parker Environmental Services. Since soil contamination was present the area in the sidewalk was excavated, however it appeared that contamination remained at depth. Additional subsurface investigation was required by the Alameda County Department of Environmental Health, and was performed by Gen Tech Environmental (GTE), which is presented in this report.

Field Activities and Methods

Exploratory Soil Borings

Nine exploratory soil boring were placed on the site to ascertain presence of contamination and depth to groundwater (see Figure 1). Drilling and well installation permits were secured from Alameda County Zone 7 prior to doing the field work. Three boreholes were converted to groundwater monitoring wells. The boreholes were drilled with truck mounted hollowstem auger drilling equipment. All drilling equipment and sampling tools were cleaned prior to arriving, and before leaving the site. The augers were advanced to the desired sampling depth interval, and a drive split spoon sampler were driven ahead of the drill bit. The sampler will then be retrieved and dissembled, and the soil filled brass liner were sealed with Teflon® paper and plastic endcaps, labeled, logged onto chain-of-custody forms and place in a chilled ice chest.

The boreholes were logged using the Unified Soil Classification System under the supervision of a registered geologist using the attached GTE Sampling Protocol. Additional lithologic information were collected to describe the subsurface geology. The samples were collected at five-foot intervals, at intervals of obvious contamination and at stratigraphic features of interest.

Monitoring Well Installation

Three monitoring wells were installed. ^{when?} The well were cased with Sch. 40 PVC casing, threaded together; glues were not used. The slotted interval is a 0.020 inch slot and the annular space around the slots were backfilled with a 2/12 size sand. Previous experience has shown this to be a reliable well design in fine grained and stratified depositional environments. Final well designs were modified to the site specific conditions encountered in each borehole during drilling. Once the aquifer strata had been defined, the casing was lowered to the bottom of the borehole, leaving a slotted interval above the occurrence of groundwater to observe for floating product. The sand pack was placed to a point about two feet above the slots. A bentonite seal was placed atop the sand pack, and a cement grout seal placed atop the bentonite using a tremie line, filling from the bottom to top of the borehole annular space. A traffic rated well head access box and security device completed the well.

Well Head Survey

The well was surveyed to mean sea level using a known datum. This will allow for accurate measurements and groundwater gradient to be calculated.

Monitoring Well Sampling and Development

Each monitoring well was developed to remove the drilling muck, grade the sand pack and provide a more complete hydraulic connection to the aquifer. Each well volume was calculated and a number of those volumes were removed until the water became clear and the amount of sand pumped was minimal. Each well was allowed to recover for at least 72 hours prior to sampling. A log of the development was kept for each well.

Depth to groundwater measurements were made to the nearest one-one hundredth of one foot, and also checked for the presence of separate phase product. As each purge volume is removed, measurements of pH, electrical conductivity and temperature were taken until these parameters stabilize, which is interpreted to be aquifer water entering the casing. Once each well had recovered to about 80% of the initial water level, the sample was carefully collected with a clean bailer and poured with minimum cavitation into the appropriate laboratory prepared container.

The water sample was labeled, logged onto a chain-of-custody form, and placed in a chilled ice chest. Upon completion of the borehole sampling, the borehole were sealed. Upon completion of well sampling, each well was closed and locked.

Subsurface Conditions

DTW?
The exploratory soil borings were advanced on-site at the locations shown on Figure 1. The site is underlain by sandy clay, sand and silty clay. Artificial fill was placed in the vicinity of EB-2 and former tank excavations. A sandy clay to clayey sand occurs from beneath surface pavements to depths of about 15 feet. Below 15 feet is a clean sand which occurs from between 15 to about 29- to 30-feet. A silty clay underlies the sand at depths of 29 to 30.5 feet, and is interpreted to be a stratigraphically continuous unit. Evidence of petroleum hydrocarbon contamination was observed in EB-2, 3, 5 and 6 and monitoring wells MW-2 and 3 and a sheen was observed on water from the borehole. *EB1 + EB3*

Groundwater was encountered in the boreholes at depths of 20- to 24-feet, and entered the boreholes slowly. Based upon borehole observations, the aquifer is ~~surmised to be unconfined~~. The groundwater flow is easterly under a gradient of about 0.07 at the time of well installation.

Chemical Analysis and Results

Eighteen soil and nine groundwater samples were analyzed at AMER, a State certified analytical laboratory. The samples were tested for the following; Total Petroleum hydrocarbons as Gasoline (TPHG), Benzene (B), Toluene (T), Ethylbenzene (E), Xylene (X), using EPA Methods 3550, 3510/8015 and 8020. The results are attached (see Appendix D) and listed below in Tables 1 and 2.

TABLE 1. SOIL CHEMICAL DATA

Sample No.	TPHG mg/kg	B -----	T all	E ug/kg	X -----
EB-1@20'	ND	ND	ND	ND	ND
EB-2@20'	300	200	1,700	260	3,000
EB-3@20'	51	30	560	320	2,900
EB-4@20'	ND	ND	ND	ND	ND
EB-5@20'	650	170	5,200	4,400	48,000
EB-6@20'	68	ND	22,000	4,300	23,000

TABLE 2. GROUNDWATER CHEMICAL DATA

Sample No.	TPHG -----	B -----	T ug/l	E -----	X -----
EB-1GWS <i>sheen</i>	62,000	ND	26	850	8,900
EB-2GWS	160,000	5,300	20,000	2,100	17,000
EB-3GWS <i>sheen</i>	87,000	1,400	21,000	1,700	19,000
EB-4GWS	350,000	290	1,300	3,200	31,000
EB-5GWS	120,000	2,100	13,000	1,300	16,000
EB-6GWS	230,000	<u>10,000</u>	34,000	2,300	16,000
MW-1	ND	ND	ND	ND	ND
MW-2	61,300	3,000	3,900	160	4,500
MW-3 <i>sheen</i>	<u>394,000</u>	1,200	ND	1,800	4,000

ND - Not Detected
 mg/kg - milligram per kilogram

ug/l - microgram per liter
 ug/kg - microgram per kilogram

Discussion

Soil samples collected from the borehole indicate that the contaminants are present in the capillary fringe in the vicinity of the former tank locations. Excavation in the tank areas has apparently removed the contaminated soil to the limit accessible. Overall site groundwater movement is easterly under a gentle gradient. The chemical data indicate that TPHG and BTEX contaminants occur on-site. Contaminant occurrence infer capillary migration in soil as well as groundwater. Currently, migration in water appears to be slow, toward the east.

Conclusions and Recommendations

A soil and groundwater investigation at the site at 1721 Webster has confirmed that TPHG and BTEX contaminants are present in soil and water. Previous work has removed the accessible soil contamination and the residuals remaining are surmised to be residuals. The contaminants on the capillary fringe have affected groundwater, and a plume appears to be slowly moving to the east under Webster. Given the geographic constraints of this site, remedial options and available space and site access are severely limited. ~~It is reported that another offsite TPHG source may occur across the street and may have commingled with this plume, and the extent of any is currently unknown.~~

what about off site

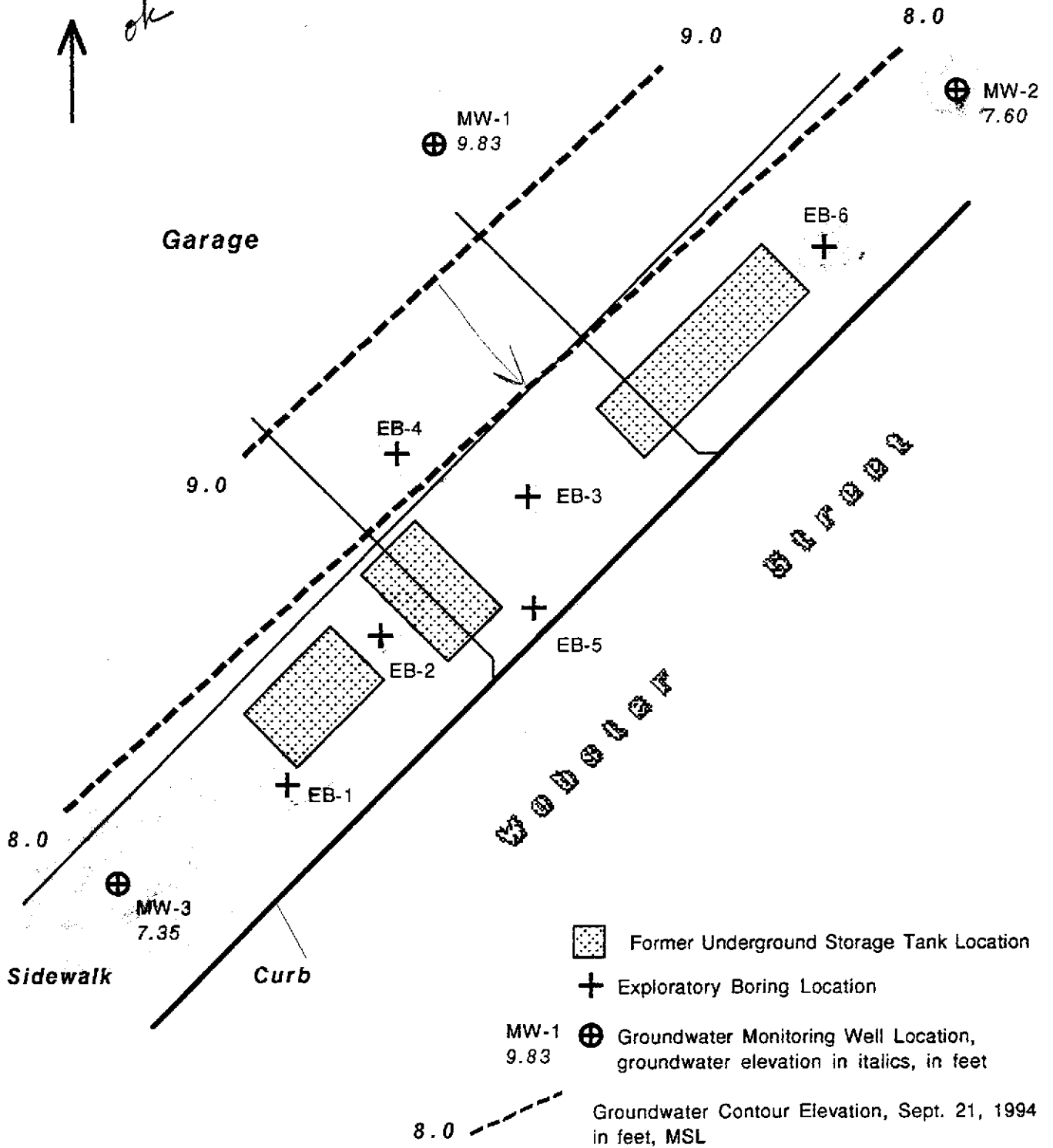
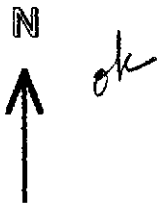
GTE recommends that the groundwater monitoring wells be monitored at quarterly intervals to meet the requirements of the Alameda County for underground tank petroleum releases. The data collected in this periodic monitoring program can be used to track hydrocarbons in groundwater.

Limitations

This report has been prepared for the specifically for the Douglas Parking Co. site at 1721 Webster Avenue, Oakland, CA, and was done according to the current State and local agency suggested guidance documents for these investigations. The interpretations, conclusions and recommendations made herein are based on the data and analysis for the soil and water samples collected on-site and should be reviewed in the context of the whole report. Please note that reports of contamination must be submitted to the agencies in a timely manner. Gen Tech Environmental, Inc. is not responsible for errors in laboratory analysis and reporting, or for information withheld during the course of the study, and no warranty or guarantee is expressed or implied therein.

Reference

Parker Environmental Services, Project No. 128-6, Tank Removal and Sampling, Douglas Parking, 1721 Webster Street, Oakland, CA.



**GEN TECH
ENVIRONMENTAL, INC.
SAN JOSE, CA**

**Site Plan and Groundwater
Contour Map**
Douglas Parking
1721 Webster Street
Oakland, CA

Project No. 9432
Scale: 1" = 100'
Date: Dec., 1994

FIGURE 1



1936 Camden Ave., Suite 1
San Jose, CA 95124
Contractor's Lic. #615869

Tel. (408) 559-1220 • Fax (408) 559-1228 • 1-800-499-1220

GEN TECH ENVIRONMENTAL, INC.

DRILLING, SEALING WELL CONSTRUCTION AND SAMPLING PROTOCOL

Last Rev. 4/5/93

Exploratory Boring Drilling and Sealing

Exploratory boring and well construction, and borehole sealing procedures follow guidelines recommended by the USEPA, California Regional Water Quality Control Board, and modified as required by City, local or water district agencies. Drilling is performed only under approved permits and boreholes are sealed upon completion.

Soil Sampling Procedures

1. Drive (or hydraulically push) soil sampling will commence at a depth of 5 feet below surface grade. The samples will be taken at 5 foot increments and at intervals of geologic interest or obvious contamination. Additional sampling and/or continuous coring may be done at the discretion of the supervising geologist. All logging will be done using the Unified Soil Classification System, together with pertinent geologic observations.
2. Soil sampling tools (split spoons, cores, etc.) will be disassembled, steam-cleaned or cleaned in soapy (TSP) water, rinsed with clean tap water and finally rinsed with or distilled water, and air-dried prior to taking each sample. The cleaned tools will then be reassembled with similarly cleaned, dry brass sample liners and carefully lowered into the hollow stem augers for the collection of the next sample. The drill rig will be decontaminated as needed and at the discretion of the logging geologist.
3. When sampling stockpile soils or during excavations, the soil sample will be collected by the following procedure; a clean brass liner will be pushed into the stockpile or soil in the excavator bucket. About two inches of soil will be brushed away and the liner pushed into the soil. The liner is then removed, sealed, labeled and logged onto chain-of-custody forms and packed in a chilled ice chest.
4. The soil samples in the lowermost of brass liners in the sampling tool (if in good condition) will be retained for chemical testing. The samples will be labeled and sealed in the field in their original liners. Sample liners ends will be sealed with aluminum foil, capped with clean cap plugs, and taped.

5. The remaining soil sample will be extruded from the other rings in the field and lithologically logged. Sampler shoe cuttings, drill rig response and bit penetration rate will also be logged. The cuttings and the soils samples not retained for chemical analysis will be placed in 55-gallon drums pending chemical analysis and off-site disposal.

6. All samples retained for chemical analysis will be stored on ice in a clean, covered cooler-box for transport to the Laboratory.

Reconnaissance Groundwater Sampling Procedures

1. Reconnaissance groundwater sample, handling, and storage will follow guidance documents of the Environmental Protection Agency and Regional Water Quality Control Board and local agency guidelines for the investigation.

2. Reconnaissance groundwater samples will be collected in the field in temporarily cased exploratory boreholes using clean Teflon or disposal bailers. The samples will be collected from temporarily cased exploratory boreholes. All sample containers will be properly prepared, sealed, labeled, and identified. Label information will include the date, sampler name, sampling time, and identification number, and the project name and number.

3. The sample will be delivered to a State Certified Laboratory within two days of collection. Samples will be kept on ice and/or refrigerated continuously for shipment to the Laboratory.

4. The sealed sample will only be opened by Laboratory personnel who will perform the chemical analysis.

5. The samples will be analyzed according to the approved EPA Method and storage for the requested analysis.

6. Groundwater sampling will begin 24 hours following well development, following the procedures detailed below for monitoring well sampling. Depth to water measurements are made to the nearest 0.01 foot a surveyed datum (project or known) and wells are checked for separate phase product. Boreholes are sealed following water sampling.

Monitoring Well Construction

1. The proper permits will be obtained from the appropriate agency or Water District, using a Well Inspector as required to be present to witness the installation of the annular seal. The soils borings will be drilled with a continuous-flight hollow-stem auger of at least 3 inches Inside Diameter (ID) and 6 to 8 inches Outside Diameter (OD). All augers will be thoroughly steam-cleaned prior to visiting the site. The augers will be steamed cleaned between borings at a location well away from the proposed borings or adequate clean auger will be available to complete all of the wells without reusing auger sections.
2. A geologic drilling log will be made of the materials encountered and sample depth for each boring. The soils/sediment lithology will be logged using the Unified Soil Classification System. The log will include field descriptions of the soil lithologic variations, moisture conditions, geologic data, and any unusual characteristics which may indicate the presence of chemical contamination.
3. The borings will be advanced to a depth of 45 feet if a saturated zone is not encountered (in absence of other depth specifications). If a saturated zone is encountered, the boring will advance no further than 15 feet below first encountered groundwater or 5 feet into the underlying clay aquitard. A seal will be placed in the overdrilled portion of the aquitard.
4. During the drilling operations, 55-gallon drums will be on site to contain potentially contaminated soils and rinse water.
5. Where borings are completed as groundwater monitoring wells, 2-inch ID schedule 40 PVC blank pipe will be used. Usual well screen selection will be 2 inch ID Schedule 40 PVC pipe with 0.020 inch machine slot. Sections will be threaded and screwed together; glues will not be used. Screens will extend 3-5 feet above first encountered groundwater. The annulus of the perforated section will be packed with clean #3 or #4 Monterey Sand, or equivalent, to a point about 2-feet above the screen interval. Final well design will be adjusted in the field to site specific subsurface conditions, and will be placed so as not to interconnect two possible aquifers. Screens will extend a nominal length above first encountered groundwater for floating product detection. A 1-2 foot thick bentonite seal will be placed on top of the sandpack. A cement annular seal which extends to the surface will be placed by tremie line from the bottom to top of the remaining annular space above the bentonite.

6. The top of the well casing will be locked to prevent contamination and tampering. Above-grade or at-grade well completion will depend upon the final well location. Above-grade completion will require a 6 inch diameter locking, steel protective casing and a Christy, or equivalent, traffic box and concrete pad.

Monitoring Well Development

1. Wells will be developed until the water is free of fine-grained sediments and/or until field measurements of pH, and electrical conductivity have stabilized. Approximately 4 to 10 well volumes of water will be removed during development of the well. Duration of development will be specific for each well and continue until the water clears and sand content is minimal or ceases.

2. Equipment inserted into the well during development will be decontaminated by washing or steam cleaning prior to and after its use. Development water will be collected in drums.

Monitoring Well Sampling

1. Depth to groundwater will be measured to the nearest 0.01 foot, and the well checked for presence of separate phase product. If present, the apparent thickness of the product will be measured. The well will not be sampled if separate phase product is present.

2. The standing well volume calculated, and 4 to 10 well volumes will be purged from the well prior to sampling. Measurements of conductivity, temperature and the pH of the water will be taken until parameters have stabilized to indicate that aquifer water is entering the well.

3. The groundwater samples will be collected using a Teflon Bailer. A field log will record sampling measurements and observations. Aquifer parameters which will be measured are; pH, temperature and electrical conductivity. Aquifer water is assumed to be entering the well when these parameters are measured within a 10% range. The sample will be collected when the well recovers to within 80% of the original depth to water measurement.

4. The bailer will be thoroughly steam-cleaned or cleaned with soapy (TSP) water, rinsed with tap water, and finally rinsed with deionized or distilled water prior to the collection of each sample. A separate clean bailer will be used to sample each individual well.

5. All water retained for chemical analysis will be placed in clean, borosilicate, 40ml VOA vial with a teflon cap, or clean amber glass one-liter bottles and other sample containers as appropriate for water sampling purpose and test parameters. Each sample vial or bottle is topped-off to avoid air space, and will be inverted to check for air bubbles, and filled to minimum headspace. Samples will be placed on ice, blue ice, or refrigerated at 4 degrees Centigrade at all times.

6. Water samples blanks of distilled water will be poured through the sampling bailer and placed in clean sample collection bottles or vials. One water sample blank will be taken for each set of water samples collected from each boring or well.

7. All sampling equipment will be decontaminated following each sampling event, prior to use the next monitoring well.

Sample Records and Chain of Custody

1. Sample records for each sample will contain information on sample type and source; Gen-Tech Environmental project number, sampler name, sampling date, location, Laboratory name, sampling method, and any significant conditions that may affect the sampling.

2. A signature Chain-of-custody and transference documentation will be strictly maintained at all times.

3. A copy of the Laboratory sample results and the completed Chain of Custody will be provided with the technical report.

Quality Control and Quality Assurance Objectives







The sampling and analysis procedures employed by GTE for groundwater sampling and monitoring follow quality assurance and quality control (QA/QC) guidelines set out in Federal, State and local agencies guidance. Quality assurance objectives have been established to develop and implement procedures for obtaining and evaluating water quality and field data in an accurate, precise and complete manner. In this way, sampling procedures and field measurements provide information that is comparable and representative of actual field conditions. Quality control is maintained by site specific field protocols and requiring the analytical laboratory to perform internal and external QC checks. The goal is to provide data that are accurate, precise, complete comparable and representative.

The definitions as developed by overseeing federal, state, and local agency guidance documents for accuracy, precision, completeness, comparability and representativeness are:

- o Accuracy - the degree of agreement of a measurement with an accepted reference or true value.
- o Precision - a measure of agreement among individual measurements under similar conditions. Usually expressed in terms of standard deviation.
- o Completeness - the amount of valid data obtained from a measurement system compared to the amount that was expected to meet the project data goals.
- o Comparability - express the confidence with which one data set can be compared to another.
- o Representativeness - a sample or group of samples that reflect the characteristics of the media at the sampling point. It also includes how well the sampling point represents the actual parameter variations which are under study.

STANDARD SYMBOLS






Legend

-  Soil sample location
-  Soil sample collected for laboratory analysis
-  No soil recovery
-  First encountered groundwater level
-  Potentiometric groundwater level
-  Disturbed or bag soil sample

Penetration

Sample drive hammer weight - 140 pounds falling 30 inches.
Blows required to drive sampler 1 foot are indicated on the logs

Well Construction

-  Annular seal
-  Bentonite seal
-  Sand pack
-  Well riser section
-  Well screen section

2.5 YR 6/2 Soil color according to Munsell Soil Color Charts (1975 Edition)

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS More than half of material is larger than No. 200 sieve size	GRAVELS More than half of coarse fraction is larger than No. 4 sieve size	Clean Gravels	GW Well-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with Fines	GP Poorly graded gravels, gravel-sand mixture, little or no fines
			GM Silty gravels, gravel-sand-silt mixtures
			GC Clayey gravels, gravel-sand-clay mixtures
	SANDS More than half of coarse fraction is smaller than No. 4 sieve size	Clean Sands	SW Well-graded sands, gravelly sand, little or no fines
			SP Poorly graded sands, gravelly sands, little or no fines
		Sands with Fines	SM Silty sands, sand-silt mixtures
			SC Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS More than half of material is smaller than No. 200 sieve size	Low Liquid Limit	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 silty clays of low plasticity	
	High Liquid Limit	MH Inorganic silts, micaceous or diatomaceous 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	
		Pt Peat and other highly organic soils	

NOTES:

- Boundary Classification: Soils possessing characteristics of two groups are designated by combinations of group symbols. For example, GW-GC, well-graded gravel-sand mixture with clay binder.
- All sieve sizes on this chart are U.S. standard.
- The terms "silt" and "clay" are used respectively to distinguish materials exhibiting lower plasticity from those with higher plasticity.
- For a complete description of the Unified Soil Classification System, see "Technical Memorandum No. 3-357," prepared for Office, Chief of Engineers, by Waterways Equipment Station, Vicksburg, Mississippi, March 1953.

Project No. 9432 Boring/Well No. EB-1

Client: Douglas Parking Date Drilled: July 8, 1994

Location: 1721 Webster St., Oakland, CA Logged by: EL

Drilling Method: Hollowstem Permit: Zone 7 borings

Water Levels: 1st Enc: 24' Static: 21.5'

Borehole Completion

Well Installed: No

Total Depth: 30.5 feet

Grout Seal: 30' to surface

Sample No.	Blow No. OV	Count	Sample Depth	Lithology Log	Well Detail/ Backfill
				Concrete and subgrade	
EB-1 @ 5'	-	grab	5	SM - Silty SAND, very dark grayish brown 10YR(3/2), up to 5% fine gravel to coarse sand, drills dense, damp. color change to dark yellowish brown 10YR4/6, 15% clay, 20% silt, drills dense, damp. driller calls change at 8 feet.	
EB-1 @ 10'	-	50 for 6"	10	CL - Sandy CLAY, dark yellowish brown 10YR(4/6), 15% silt 25% sand, low-med. plasticity, rare burrows, oxidation mottling, hard, damp.	
EB-1 @ 15'	-	82	15	SP - SAND, light olive brown 2.5Y(5/4), very fine to med. grained, very dense, damp to moist.	
EB-1 @ 20'	-	50 for 6"	20	color change to dark greenish gray discoloration 2.5Y(5/4), slight petroleum odor, very dense, moist. driller calls water at 24 feet.	▼
EB-1 @ 25'	-	60	25	same as above, sheen on water, very dense, saturated.	▼
EB-1 @ 30'	-	24/50 for 6"	30	same as above, flowing conditions.	
				CL - Silty CLAY, light olive brown 2.5Y(5/4), 15% silt, 20% fine to med grained sand, low-med. plasticity, contaminants not observed, hard, damp.	
				Bottom of Boring = 30.5 feet, sand flows into lower 0.5 feet.	

COMP CEG 126 Z

Project No. 9432 Boring/Well No. EB-2
 Client: Douglas Parking Date Drilled: July 8, 1994
 Location: 1721 Webster St., Oakland, CA Logged by: EL
 Drilling Method: Hollowstem Permit: Zone 7 borings
 Water Levels: 1st Enc: 24' Static: 22'

Borehole Completion
 Well Installed: No
 Total Depth: 30'
 Cement Grout Seal: 27' to surface

Sample No.	Blow Han	Count	Sample Depth	Lithology Log	Well Detail/ Backfill
				Concrete and subgrade	
				GW - Artificial FILL, base material.	
EB-2 @ 5'	-	grab	5		
EB-2 @ 10'	-	83	10	artificial fill, dense, damp.	
EB-2 @ 15'	500 ppm	22/50 for 6"	15	SP - SAND, light olive brown 2.5Y(5/4), rare burrows or root holes, petroleum odor, very dense, damp.	
EB-2 @ 20'	500+ ppm	17/50 for 3"	20	same as above, very dense, moist.	
EB-2 @ 25'	1000 ppm	59	25	same as above, color change to dark greenish gray 5GY(4/1), strong petroleum odor, dense, saturated.	
EB-2 @ 30'	-	63	30	flowing conditions, clay on drill bit when withdrawn from borehole.	
				Bottom of Boring = 30 feet, flowing sand fills lower 3 feet	
				Han- hanby Field Analytical Chemical colormetric Test for petroleum hydrocarbons in parts per million.	
				CWP 0641262	

Project No. 9432 Boring/Well No. EB-3

Client: Douglas Parking Date Drilled: July 8, 1994

Location: 1721 Webster St., Oakland, CA Logged by: EL

Drilling Method: Hollowstem Permit: Zone 7 borings

Water Levels: 1st Enc: 24' Static: 22'

Borehole Completion

Well Installed: No

Total Depth: 30'

Cement Grout Seal: 26' to surface

Sample No.	Blow Han	Count	Sample	Depth	Lithology Log	Well Detail/ Backfill
					Concrete and subgrade	
EB-3 @ 5'	-	grab	⊗	5	CL - Sandy CLAY, olive 5Y(4/4), low plasticity, slight petroleum odor, drills soft, damp.	
EB-3 @ 10'	-	46	▨	10	sand interbed, 1.5' thick, slight petroleum odor,	
EB-3 @ 15'	-	54	▨	15	SP - SAND, dark yellowish brown 10YR(4/6), fine to med. grained, fines < 5%, dense, moist.	
EB-3 @ 20'	100 ppm	76	▨	20	same as above, moderate petroleum odor, dense, moist.	
EB-3 @ 25'	-	70	▨	25	same as above, sheen on water, very dense, saturated.	
EB-3 @ 30'	-	53	▨	30	CL - Silty CLAY, light olive brown 2.5Y(5/4), 40% silt, < 5% sand, med. plasticity, laminated, some burrows, hard, damp.	
					Bottom of Boring = 30 feet, flowing sand fills lower 4 feet	
					Han- Hanby Field Analytical Chemical Colormetric Test for petroleum hydrocarbons in parts per million.	
					UMP CEC, 126 L	

Project No. 9432 Boring/Well No. EB-4
 Client: Douglas Parking Date Drilled: July 8, 1994
 Location: 1721 Webster St., Oakland, CA Logged by: EL
 Drilling Method: Hollowstem Permit: Zone 7 borings
 Water Levels: 1st Enc: 24' Static: 20'

Borehole Completion
 Well Installed: No
 Total Depth: 30'
 Cement Grout Seal: 29' to surface

Sample No.	Blow Count	Depth	Lithology Log	Well Detail/Backfill
			Concrete and subgrade	
EB-4 @ 5'	grab	5	SC-CL - Clayey SAND to Sandy CLAY, dark yellowish brown 10YR(4/3), 30-55% fine sand, low plasticity, rare burrows, drills dense to hard, damp.	
EB-4 @ 10'	29/50 for 2'	10	same as above but sand content increasing, very dense, damp.	
EB-4 @ 15'	24/50 for 5'	15	SP - SAND, olive brown 2.5Y(4/4) to greenish gray 5GY(5/1), fine to medium grained, <5% fines, very dense, damp to slightly moist.	
EB-4 @ 20'	51	20	same as above, dense, slightly moist to moist.	
EB-4 @ 25'	65	25	same as above, dense, saturated.	
EB-4 @ 30'	26	30	CL - Silty CLAY, light greenish brown, 5Y(4/2), laminated, <15% fine sand, 20% silt, low to med. plasticity, few burrows, oxidized mottles, very stiff, damp.	
			Bottom of Boring = 30 feet, flowing sand fills lower 1 foot.	
			CAMP CEG 1262	

Project No. 9432 Boring/Well No. EB-5
 Client: Douglas Parking Date Drilled: July 8, 1994
 Location: 1721 Webster St., Oakland, CA Logged by: EL
 Drilling Method: Hollowstem Permit: Zone 7 borings
 Water Levels: 1st Enc: 24' Static: 18'

Borehole Completion
 Well Installed: No
 Total Depth: 30'
 Cement Grout Seal: 29' to surface

Sample No.	Blow Han	Count	Sample	Depth	Lithology Log	Well Detail/Backfill
					Concrete and subgrade	
EB-5 @ 5'	1000 ppm	grab	⊗	5	CL - Sandy CLAY, dark yellowish brown 10YR(3/6), 15% silt, 20% sand, low to med. plasticity, drills firm, damp. same as above, moderate petroleum odor, damp.	
EB-5 @ 10'	800 ppm	50	▨	10	same as above, 15% coarse sand, hard, slightly moist.	
EB-5 @ 15'	1000 ppm	60 for 6"	▨	15	SP - SAND, olive brown 2.5Y(4/4), fine to medium grained, strong petroleum odor, very dense, moist.	
EB-5 @ 20'	500 ppm	24/50 for 5"	▨	20	same as above, dark greenish gray 5GY(4/2), clay up to 35% disseminated, very dense, moist.	
EB-5 @ 25'	-	33	▨	25	same as above, clay <5%, strong petroleum hydrocarbon, dense, saturated.	
EB-5 @ 30'	-	32	▨	30	CL - Silty CLAY, light olive brown 5Y(6/2), 30% silt, med. to highly plastic, hard, damp.	
					Bottom of Boring = 30 feet, flowing sand fills lower 1 foot	
					Han- Hanby Field Analytical Chemical Colorimetric Test for petroleum hydrocarbons in parts per million.	
					(1.164) CEC 1262	

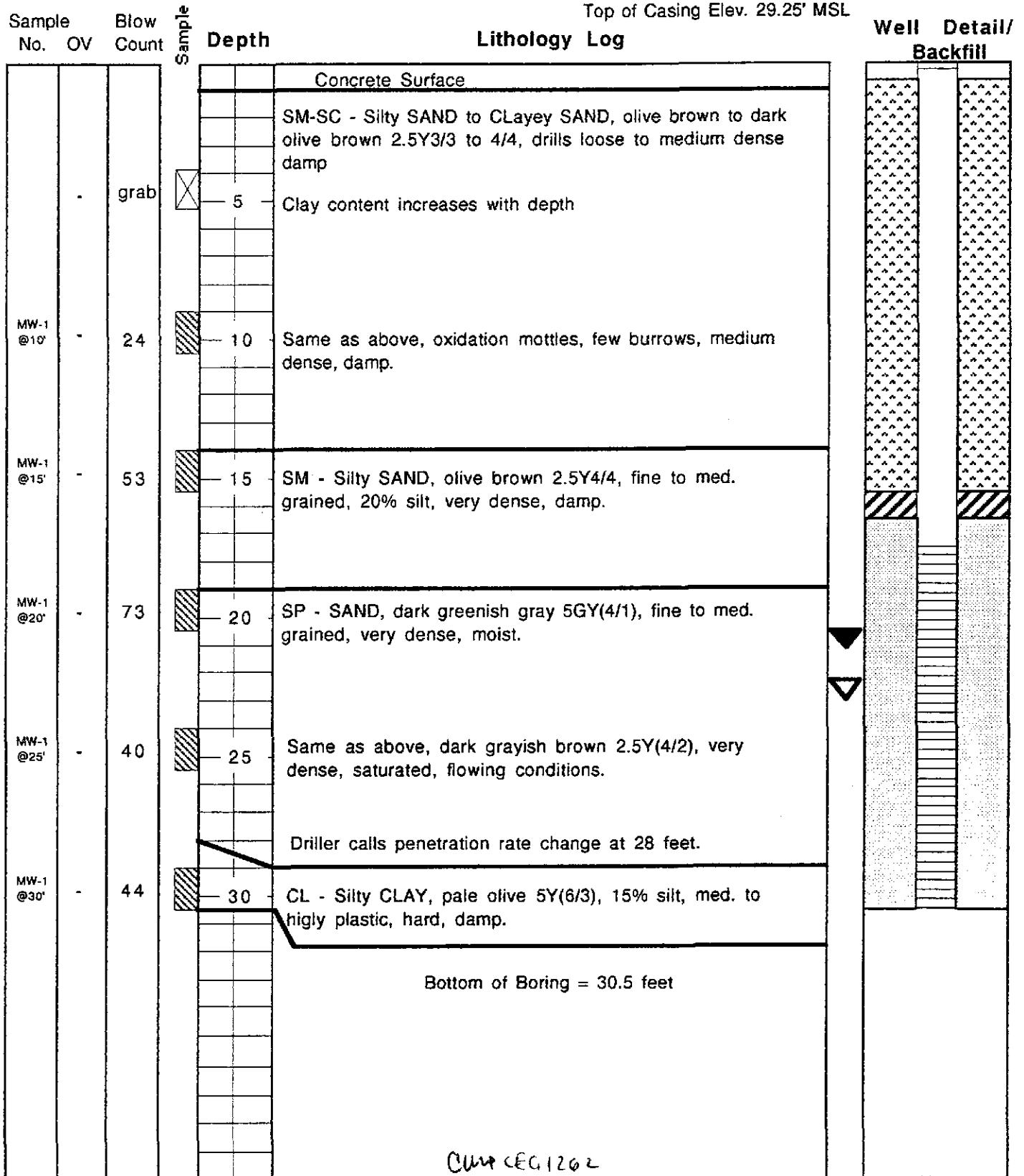
Project No. 9432 Boring/Well No. EB-6
 Client: Douglas Parking Date Drilled: July 8, 1994
 Location: 1721 Webster St., Oakland, CA Logged by: EL
 Drilling Method: Hollowstem Permit: Zone 7 borings
 Water Levels: 1st Enc: 24' Static: 21.50'

Borehole Completion
 Well Installed: No
 Total Depth: 30'
 Cement Grout Seal: 28' to surface

Sample No.	Blow No.	Blow Count	Sample	Depth	Lithology Log	Well Detail/ Backfill
					Concrete and subgrade	
EB-6 @ 5'	-	grab	⊗	5	CL - Sandy CLAY, dark yellowish brown 10YR(4/4), 35% sand, med. plasticity, drills firm, damp.	
EB-6 @ 10'	-	42/50 for 3"	▨	10	same as above, color darkens to dark olive gray, slight petroleum odor, hard, damp.	
EB-6 @ 15'	-	50	▨	15	SP - SAND, olive 5Y(4/3), fine to med. grained, slight petroleum odor, dense to very dense, damp.	
EB-6 @ 20'	1000 ppm	57/50 for 5"	▨	20	same as above, stained dark bluish gray, strong petroleum odor, very dense, moist.	
EB-6 @ 25'	-	48	▨	25	same as above, strong petroleum odor, dense, saturated, flowing conditions.	
EB-6 @ 30'	-	51	▨	30	CL - Silty CLAY, pale olive, 5Y(6/3), laminated, 15% silt, highly plastic, hard, damp.	
					Bottom of Boring = 30 feet, flowing sand fills lower 2 feet	
					Han-Hanby Field Analytical Chemical Colometric Test for petroleum hydrocarbons in parts per million.	
					CMP & EG 1262	

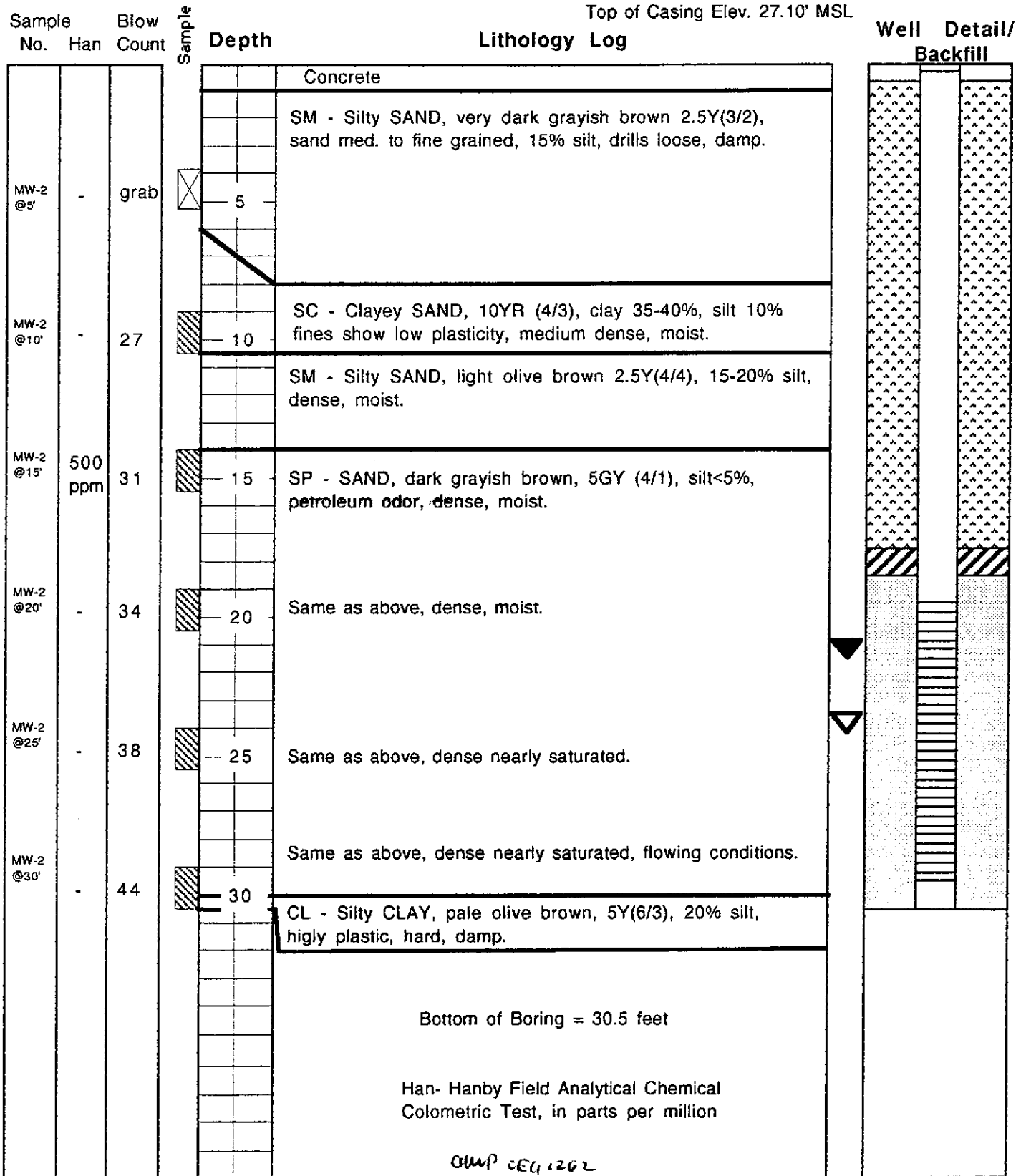
Project No. 9432 Boring/Well No. MW-1
 Client: Douglas Parking Date Drilled: Sept. 8, 1994
 Location: 1721 Webster St., Oakland, CA Logged by: EL
 Drilling Method: Hollowstem Permit: Zone 7 #94501
 Water Levels: 1st Enc: 23' Static: 21.7

Borehole Completion
 Well Installed: 2" dia. Sch 40 PVC
 Total Depth: 30.5' Casing Depth: 30.5'
 Screen Length: 10' 0.020" Blank Length: 20.5'
 Top Sand Pack: 16.5' Top Bentonite: 15.5'
 Grout Seal: 15.5" to 0.5' vault box
 Top of Casing Elev. 29.25' MSL



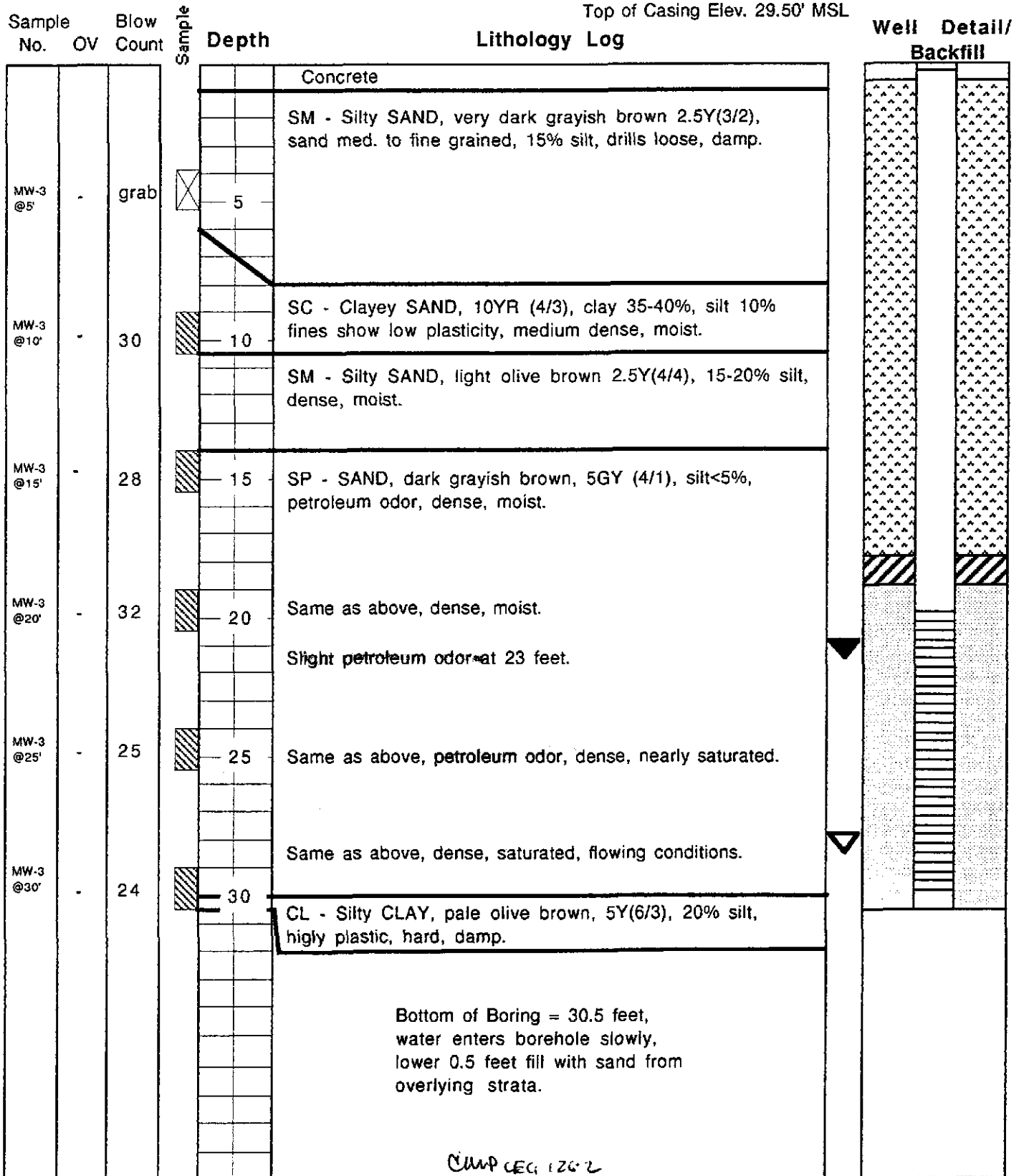
Project No. 9432 Boring/Well No. MW-2
 Client: Douglas Parking Date Drilled: Sept. 8, 1994
 Location: 1721 Webster St., Oakland, CA Logged by: EL
 Drilling Method: Hollowstem Permit: Zone 7 #94501
 Water Levels: 1st Enc: 24' Static: 20.1'

Borehole Completion
 Well Installed: 2" dia. Sch 40 PVC
 Total Depth: 30.5 Casing Depth: 29.5
 Screen Length: 10' 0.020" Blank Length: 19.5
 Top Sand Pack: 18.5' Top Bentonite: 17.5'
 Grout Seal: 17.5' to 0.5' vault box
 Top of Casing Elev. 27.10' MSL



Project No. 9432 Boring/Well No. MW-3
 Client: Douglas Parking Date Drilled: Sept. 8, 1994
 Location: 1721 Webster St., Oakland, CA Logged by: EL
 Drilling Method: Hollowstem Permit: Zone 7 #94501
 Water Levels: 1st Enc: 28.20' Static: 21.60'

Borehole Completion
 Well Installed: 2" dia. Sch 40 PVC
 Total Depth: 30.5' Casing Depth: 30'
 Screen Length: 10' 0.020" Blank Length: 20'
 Top Sand Pack: 19' Top Bentonite: 18'
 Grout Seal: 18' to 0.5' vault box
 Top of Casing Elev. 29.50' MSL



ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

June 22, 1994
STID 4070

Douglas Motor Service
ATTN: Leland Douglas
1721 Webster St.
Oakland, CA 94612

Re: 1721 Webster St., Oakland, CA 94612

Dear Leland Douglas:

This office has received and reviewed the Proposed Exploratory Boring and Monitoring Well Installation Workplan, with attachments, for the above site by Gen-Tech Environmental dated June 8, 1994. The plan was reviewed by this office and found to be acceptable. Please contact this office at least 48 hours prior to implementation of the field work.

If you have any questions please call this office at (510) 271-4530.

Sincerely,

Thomas F. Peacock, Supervising HMS
Hazardous Material Division

cc: Edgar B. Howell, Chief - Files
✓ Stuart Solomon, 1936 Camden Ave., Suite 1, San Jose, CA
95124

City of Oakland
PARKING METER COVER REQUEST
TRAFFIC ENGINEERING & PARKING DIVISION

**CITY
 OF
 OAKLAND**

Subject To All Posted Traffic Regulations On This

NO REFUND W/O RECPT

Effective Date	Expiration Date	No. of Covers Issued
		4 6

Site Address
 1721 Webster Street, Oakland, CA

07-05-94 #1

Reason for Request
 perform (6) exploratory borings/exca

B/M COVR 45.00
 SUBTL 45.00
 CHECK 45.00

Requested By
 Gen-Tech Environmental

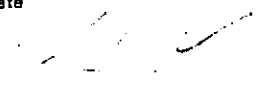
Address
 1936 Camden Av

ITEM 1
 1CL 6672 09:19TM

Signature of Person Requesting


Tele.
 408-55091220

Issued By
 #537-003 (4/70)

Date


CITY OF OAKLAND

CITY OF OAKLAND PERMIT TO EXCAVATE IN STREETS OR OTHER WORK AS SPECIFIED

X/14 00122 EXC - 115 A-FEE

NO REFUND W/O RECPT

721 Webster Street BETWEEN 17th St. AND 19th St. (Street or Address) (Street/Ave.) (Specify)

DATE IN THE PUBLIC RIGHT-OF-WAY IS HEREBY GRANTED TO: Tech Environmental

07-05-94 #1

Hamden Ave. #1, San Jose, CA 95124 PHONE #: 408-559-1220

APPL 40.00 EXCV 195.00 SUBTL 235.00 CHECK 235.00

S ELECTRIC WATER TELEPHONE CABLE TV SEWER OTHER borings/excavation (Specify) approx. (0) exploratory borings/excavation of soil

ITEM 2 1CL 6673 09:20TH

on the Contractor's License Law for the following reasons: Any city or county which requires a permit to file a signed statement that he is licensed pursuant to the License Law Chapter 9 (commencing with Sec. 7000) or that he is exempt therefrom and any violation of Section 7031.5 by any applicant for a civil penalty of not more than \$500;

PERMIT VOID 90 DAYS FROM DATE OF ISSUE UNLESS EXTENSION GRANTED BY DIRECTOR OF PUBLIC WORKS.

Approximate Starting Date DATE 7-8-94

Approximate Completion Date DATE 7-3-94

HOLIDAY RESTRICTION (1 NOV - 1 JAN) YES NO

LIMITED OPERATION AREA (7AM - 9AM/4PM - 6PM) YES NO

DATE STREET LAST RESURFACED DATE

SPECIAL PAVING DETAIL REQUIRED YES NO

24-HOUR EMERGENCY PHONE NUMBER (408) 735-2533 PERMIT NOT VALID WITHOUT 24 HOUR NUMBER.

Telephone 238-3651 Forty-eight (48) HOURS BEFORE ACTUAL CONSTRUCTION.

OWNER/BUILDER

or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 70044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption in this subdivision on more than two structures more than once during any three-year period. (Sec. 7044, Business and Professions Code).

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law).

I am exempt under Sec. B&PC for this reason

Signature Date

WORKER'S COMPENSATION

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab C).

Policy # 1244702 Company Name State Comp Fund

Certified copy is hereby furnished.

Certified copy is filed with the city building inspection dept.

Signature Date 7/1/94

(This section need not be completed if the permit is for one hundred dollars (\$100) or less.)

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Signature Date

NOTICE TO APPLICANT. If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

ATTENTION

State law requires that contractor/owner call Underground Service Alert two working days before excavating to have below-ground utilities located. This permit is not valid unless applicant has secured an inquiry identification number issued by Underground Service Alert.

Call Toll Free: 800-642-2444 USA ID Number 208901

This permit issued pursuant to all provisions of Chapter 8, Article 2 of the Oakland Municipal Code.

This permit is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims or damage brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance.

CONTRACTOR

I hereby affirm that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

LICENSE # AND CLASS A.B. HAZ CITY BUSINESS TAX # 438928

X Signature of Contractor Owner or Agent Date 7/1/94

Agent for Contractor Owner

INSPECTION COSTS FOR UTILITY COMPANIES & ADDITIONAL INSPECTION HOURS WILL BE CHARGED IN CONFORMANCE WITH THE MASTER FEE SCHEDULE.

OFFICIAL USE ONLY UTILITY COMPANY REPORT

Supervisor

Completion Date

CITY INSPECTOR'S REPORT

BACKFILL PAVING

Initials

Hours

Date

Concrete

Asphalt

Sidewalk

Size of Cut: Sq. Ft. Inches

Paved by Type

Bill No.

Charges Backfill

Paving

Paving Insp.

Traffic Striping Replaced Date

APPROVED Engineering Services Date

Planning Date

Field Services Date

Construction Date

Traffic Engineering Date

Electrical Engineering Date

DIRECTOR OF PUBLIC WORKS

APPROVED BY: DATE: 7-1-94

EXTENSION GRANTED BY: DATE:



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2800
FAX (510) 482-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 1721 WEBSTER ST.
OKLAND, CA 94612

PERMIT NUMBER 94389
LOCATION NUMBER _____

CLIENT
Name LELAND DOUGLAS
Address 1721 WEBSTER Voice 510-444-7412
City OKLAND CA. Zip 94612

PERMIT CONDITIONS
Circled Permit Requirements Apply

APPLICANT
Name GEN-TECH ENVIRONMENTAL
1936 CAYLOR AVE Fax (408) 659-1228
Address STE #3 Voice (408) 659-1220
City SAN JOSE CA. Zip 95124

- 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. 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 drilling logs and location sketch for geotechnical projects.
 3. 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.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
- C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
- D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.
- E. WELL DESTRUCTION. See attached.

WELL TYPE PROJECT

Well Construction	Geotechnical Investigation	_____
Cathodic Protection	General	_____
Water Supply	Contamination	<input checked="" type="checkbox"/>
Monitoring	Well Destruction	_____

PROPOSED WATER SUPPLY WELL USE N/A

Domestic	Industrial	Other
_____	_____	_____
Municipal	Irrigation	_____
_____	_____	_____

DRILLING METHOD:

Mud Rotary _____ Air Rotary _____ Auger 8" Hollow stem
Cable _____ Other _____

DRILLER'S LICENSE NO. WEST H&M DRILLING CORP.
C-57 No. 554479

WELL PROJECTS

Drill Hole Diameter	_____ in.	Maximum
Casing Diameter	_____ in.	Depth
Surface Seal Depth	_____ ft.	Number

GEOTECHNICAL PROJECTS

Number of Borings	<u>6</u>	Maximum
Hole Diameter	<u>8" in.</u>	Depth
		<u>30 ft.</u>

ESTIMATED STARTING DATE 7.8.94
EST. COMPLETION DATE 7.8.94

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-88.

Approved Wyman Hong Date 1 Jul 94
Wyman Hong

APPLICANT'S [Signature] GEN-TECH ENVIRONMENTAL 7.1.94



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2000

FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 1721 Westshore St
Oakland CA 94612

PERMIT NUMBER 94501
LOCATION NUMBER _____

CLIENT

Name POURBAK PAKLIAN CO.
Address 1721 Westshore St Voice (510) 444-7412
City OAKLAND CA Zip 94612

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT

Name GEN-TECH ENVIRONMENTAL
Address 1936 LAWRENCE AVE. N.E. Voice (408) 559-1228
City SPAIN TOWN OR. Zip 95124

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. 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 drilling logs and location sketch for geotechnical projects.
3. 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.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

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

E. WELL DESTRUCTION. See attached.

TYPE OF PROJECT

Well Construction	Geotechnical Investigation
Cathodic Protection	General
Water Supply	Contamination <input checked="" type="checkbox"/>
Monitoring <input checked="" type="checkbox"/>	Well Destruction

PROPOSED WATER SUPPLY WELL USE

Domestic Industrial Other _____
Municipal Irrigation

DRILLING METHOD:

Mud Rotary _____ Air Rotary _____ Auger
Cable _____ Other _____

DRILLER'S LICENSE NO. WEST-HAD-MAT DRILLING
657 NO. 554979

WELL PROJECTS

Drill Hole Diameter	<u>8</u> in.	Maximum	
Casing Diameter	<u>2</u> in.	Depth	<u>30</u> ft.
Surface Seal Depth	<u>10</u> ft.	Number	<u>3</u>

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum	
Hole Diameter	_____ in.	Depth	_____ ft.

ESTIMATED STARTING DATE 9/2/94
ESTIMATED COMPLETION DATE 9/2/94

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

APPLICANT'S SIGNATURE

Date 8/29/94

Approved

Wyman Hong

Date 1 Sep 94

RECEIVED
MAR 16 1993
ANSWERED

City of Oakland
PARKING METER COVER REQUEST
 TRAFFIC ENGINEERING & PARKING DIVISION

CITY
 OF
 OAKLAND


Subject To All Posted Traffic Regulations 0

Effective Date 7/8/94	Expiration Date 9-3-94	No. of Covers 4
--------------------------	---------------------------	--------------------

Site Address
 1721 WASHINGTON ST. OAKLAND

Reason for Request	INSTALLATION OF (5) METER COVERS

Requested By ALAN FORD	Address 1721
---------------------------	-----------------

Signature of Person Requesting


Issued By
 #537-003 (4/70)

NO REFUND W/O RECPT

09-06-94 #1

OBST 45.00
 SUBTL 45.00
 CHECK 45.00

ITEM 1
 2CL 0436 09:59TH

(418) 537-1220

Date
 9-2-94

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH
 Hazardous Materials Inspection Form

80 Swan Way, #200
 Oakland, CA 94621
 (415) 271-4320

II, III

Site ID # _____ Site Name Douglas Parkings Today's Date 9/8/94

Site Address 1721 Webster St.

City Oakland Zip 94612 Phone _____

MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks being drilled

* Calif. Administration Code (CAC) of the Health & Safety Code (HS&C)

8:30 arrived on site.

Comments:
Met Eric Lissol from GTE, who said GTE installed 6 SPS 2 months ago, & they were all that, so they didn't install the 3 MWs, as per the 6-8-94 workplan. They're installing MW3 now (see attached map) in the sidewalk. Drill cuttings are being stockpiled on visqueen inside the garage, along w/drums of sewage. There should be 4 drums sewage at the end of drilling. First water at 28' bas in MW3. It's getting screened from 26-30' bas.

9:21 left site

II.A BUSINESS PLANS (Title 19)

- 1. Immediate Reporting 2703
- 2. Bus. Plan Stds. 25503(b)
- 3. RR Cars > 30 days 25503.7
- 4. Inventory Information 25504(a)
- 5. Inventory Complete 2730
- 6. Emergency Response 25504(b)
- 7. Training 25504(c)
- 8. Deficiency 25505(a)
- 9. Modification 25505(b)


II.B ACUTELY HAZ. MATLS

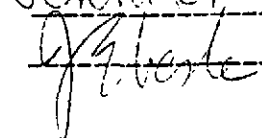
- 10. Registration Form Filed 25533(a)
- 11. Form Complete 25533(b)
- 12. RMPP Contents 25534(c)
- 13. Implement Sch. Req'd? (Y/N)
- 14. OffSite Conseq. Assess. 25524(c)
- 15. Probable Risk Assessment 25534(d)
- 16. Persons Responsible 25534(g)
- 17. Certification 25534(f)
- 18. Exemption Request? (Y/N) 25536(b)
- 19. Trade Secret Requested? 25538

III. UNDERGROUND TANKS (Title 23)

- 1. Permit Application 25284 (H&S)
- 2. Pipeline Leak Detection 25292 (H&S)
- 3. Records Maintenance 2712
- 4. Release Report 2651
- 5. Closure Plans 2670
- 6. Method
 - 1) Monthly Test
 - 2) Daily Vadose
 - Semi-annual groundwater
 - One time soils
 - 3) Daily Vadose
 - One time soils
 - Annual tank test
 - 4) Monthly Gndwater
 - One time soils
 - 5) Daily Inventory
 - Annual tank testing
 - Cont pipe leak det
 - Vadose/gndwater mon.
 - 6) Daily Inventory
 - Annual tank testing
 - Cont pipe leak det
 - 7) Weekly Tank Gauge
 - Annual tank testing
 - 8) Annual Tank Testing
 - Daily inventory
 - 9) Other _____
- 7. Precs Tank Test 2643
 - Date: _____
- 8. Inventory Rec. 2644
- 9. Soil Testing . 2646
- 10. Ground Water. 2647
- 11. Monitor Plan 2632
- 12. Access. Secure 2634
- 13. Plans Submit 2711
 - Date: _____
- 14. As Built 2635
 - Date: _____

Rev 8/88

Contact: 
 Title: PROJECT MGR.
 Signature: _____

Inspector: Jennifer Eberle
 Signature: 

II, III



1936 Camden Ave., Suite 1
San Jose, CA 95124
Contractor's Lic. #615869

November 18, 1994

Tel. (408) 559-1220 • Fax (408) 559-1228 • 1-800-499-1220

City of Oakland, Engineering Services
1330 Broadway, 2nd Floor
Oakland, CA 94612
Attn: Roger Tam

**Subject: Request for Encroachment Permit Variance at
1721 Webster Street, Oakland, CA**

Dear Mr. Tam,

We would appreciate your reviewing the following circumstances concerning the installation of groundwater monitoring wells at 1721 Webster Street, and consider allowing the wells to remain in place.

On about July 5, 1994, Gen-Tech Environmental applied for and obtained; an excavation permit from the City, a parking meter permit, and a permit from Zone 7 Water District to install several exploratory borings in the immediate area of 1721 Webster Street. These borings were necessary to help delineate areas of soil and groundwater contamination that resulted from underground fuel tank leakage at the subject site. The tanks had been removed earlier by a previous contractor, and soil samples taken at the time of removal detected petroleum contamination. The additional subsurface investigation work was requested by the Alameda County Department of Environmental Health (ACDEH).

Six exploratory borings were installed on July 8, 1994, and samples of the soil and groundwater taken. Laboratory tests of these samples revealed that there was a substantial plume of groundwater contamination in the vicinity of the site. The ACDEH immediately requested that groundwater monitoring wells be installed at the site. Gen-Tech contacted Hugo Barrion and asked if the same permit used for the exploratory borings could be used to install three groundwater monitoring wells. Two of the three wells were to be located in the sidewalk. Hugo agreed that the existing permit had not yet expired, and agreed that the wells could be installed under the same permit. GTE personnel asked Hugo if there were any additional permit requirements. Hugo indicated that there were none that he was aware of. GTE contacted the ACDEH to inquire what additional permits might be necessary. After reviewing the data from the initial borings, the Health Department suggested that two of the wells should be located in the sidewalk on either side of the previous tank locations. The agency requested that GTE submit a drawing showing the proposed locations of the wells. This was done, and the well installation locations approved. GTE then contacted Zone 7 Water District who issued permits for three well installations. GTE had USA Services mark all utilities. At that time,

to the best of GTE's knowledge, all permit requirements had been met. The wells were installed.

On October 26, 1994 GTE was contacted by Mr. Jun Osalbo from the Oakland Planning Department and informed that an encroachment permit was necessary for monitoring well installations if they were to be placed in City Public Right-of-Ways. Jun also stated that monitoring wells were not normally allowed to be placed in the sidewalk areas.

Arguments in Behalf of Allowing the Present Well Locations

- 1) This is (was) the first project that Gen-Tech Environmental has performed in the City of Oakland where monitoring wells were to be installed in a Public Right-of-Way. Gen-Tech made diligent inquiries to the City offices to discover the permit requirements for this project, and in the process, were not informed by any department of the need for an encroachment permit.
- 2) The cost of destroying the wells and reinstalling them would be considerable. But more importantly, the wells are located in ideal positions for monitoring the migration of the contaminated groundwater plume. The well heads are constructed of high traffic steel covers which are bolted securely. The manways and covers are installed flush with the sidewalk. In their current position, the wells do not interfere with any underground utilities, nor should they impair or prevent maintenance of the utilities.
- 3) Based on the results of the well sampling, it is extremely likely that the Alameda County Department of Environmental Health will require remedial action to address the contamination of the soil and groundwater in the sidewalk areas. Excavation of contaminated soil that remains in the sidewalk areas is likely to be ordered. This action will likely be levied within 6 to 12 months. The existing wells are located in areas that are likely to be excavated, and therefore, in the excavation process, they would be destroyed.

GTE has included in this submittal a drawing of the well locations, the well section diagrams (as per City specifications), and the other required data for the encroachment permit application.

Given the circumstances, we respectfully request that you consider allowing the wells to remain as they are located.

Respectfully submitted,

Stuart G. Solomon
Consultant/ Contractor

A	B	C	D	E	F	G	H	I	J	K	L
1	GEN-TECH ENVIRONMENTAL			1936 CAMDEN AVE. #1, SAN JOSE, CA 95124				408-550-1248			
2											
3	WATER-QUALITY SAMPLING INFORMATION										
4											
5	Project Name	DOUGLAS-WEBSTER ST.				Project No.	9432				
6	Date	SEPT. 21ST 1994				Sample No.	N/A				
7	Samplers Name	ERIC LISSOL									
8	Sampling Location	1721 WEBSTER ST. OAK.									
9	Sampling Method	DEVELOPMENT ONLY									
10	Analyses Requested	N/A									
11	Number/Types of Sample Bottles used	N/A									
12	Method of Shipment	N/A									
13											
14	GROUND WATER					SURFACE WATER					
15	Well No.	M.W. #2			Stream Width						
16	Well Diameter (in.)	2"			Stream Depth						
17	Depth to Water Static (ft.)	21.51'			Stream Velocity						
18	Water in Well Box	NONE			Rained Recently						
19	Well Depth (ft.)	24.35'			Other						
20	Height of Water	2.76'									
21	Column in Well	2.76'			✓ 2-inch casing = 0.16 gal/ft						
22	Water Volume in Well	0.44 GALS			4-inch casing = 0.65 gal/ft						
23	Well Head Elevation				5-inch casing = 1.02 gal/ft						
24	Redevelop. Well Depth	27.45'			6-inch casing = 1.47 gal/ft						
25	Silt Removal	3.10'									
26											
27		TIME	DEPTH TO WATER (FEET)	VOLUME GALS. WITHDRAWN	TEMP. (F)	PH (S.U.)	COND. (MHOS/CM) X 100	OTHER I VOL		REMARKS	
28											
29		11:37	21.51	0	67.9°	6.84	14.49	X	0	TOP OF WELL IN PROGRESS NO OPEN MOD TURBID	
30		11:42	—	0.5	67.5°	6.89	8.58	X	1	VERY TURBID - 100' FINE SAND NO OPEN	
31		11:44	—	1.0	67.4°	7.00	10.75	X	2		
32		11:46	—	1.5	67.4°	7.01	9.57	X	3		
33		11:49	—	2.0	67.4°	7.02	7.02	X	4	TEMP. STABLE	
34		11:52	23.33 ✓	2.5	67.0°	7.02	8.58	X	5	PH STABLE	
35		11:56	—	3.0	67.0°	7.03	8.56	X	6	READING STABLE	
36		12:00 W	—	3.5	67.1°	7.04	8.51	X	7	MOD. TURBIDITY	
37		12:03	—	4.0	67.1°	7.05	8.07	X	8		
38		12:06	—	4.5	67.1°	7.03	8.12	X	9		
39		12:09	22.73 ✓	5.0	67.0°	7.04	9.13	X	10	LOW MOD. TURBIDITY READINGS STABLE	
40	COMMENTS:										
41											

1 **GEN-TECH ENVIRONMENTAL** 1936 CAMDEN AVE. #1, SAN JOSE, CA 95124 408-559-1248

3 **WATER-QUALITY SAMPLING INFORMATION**

5 Project Name **DOUGLAS - WEBSTER ST.** Project No. **9432**
 6 Date **SEPT. 21ST. 1994** Sample No. **WW #1 - GWS**
 7 Samplers Name **ERIC LISSOL**
 8 Sampling Location **1721 WEBSTER ST. OAK.**
 9 Sampling Method **RISP. BAILEY**
 10 Analyses Requested **TPH-G, BTEX**
 11 Number/Types of Sample Bottles Used **2-40ml vials**
 12 Method of Shipment **PACKED IN ICE**

GROUND WATER		SURFACE WATER	
Well No.	WW #1	Stream Width	
Well Diameter (in.)	2"	Stream Depth	
Depth to Water Static (ft.)	21.90'	Stream Velocity	
Water in Well Box	NONE	Rained Recently	
Well Depth (ft.)	27.45'	Other	
Height of Water	5.55'		
Column in Well	5.55'	<input checked="" type="checkbox"/> 2-inch casing = 0.16 gal/ft	
Water Volume in Well	0.88 GALS.	4-inch casing = 0.65 gal/ft	
Well Head Elevation		5-inch casing = 1.02 gal/ft	
Redevelop. Well Depth	27.58'	6-inch casing = 1.47 gal/ft	
Silt Removal	0.13'		

TIME	DEPTH TO WATER (FEET)	VOLUME GALS. WITHDRAWN	TEMP. (F)	PH (S.U.)	COND. X 100 (MHOS/CM)	OTHER	REMARKS
12:18	21.90'	0	67.1°	7.08	7.76	X 0	LOW TURBIDITY NO ODOUR
12:23	—	1.0	67.1°	7.03	8.04	X 1	
12:26	—	2.0	67.1°	7.03	7.93	X 2	TEMP STABLE & PH STABLE
12:29	—	3.0	67.0°	7.05	7.96	X 3	REPRODUCIBLE STABLE
12:31	22.32' Δ	4.0	67.0°	7.04	7.99	X 4	STABLE

40 COMMENTS: **Δ = WATER DEPT ↓ RISING**

1	GEN-TECH ENVIRONMENTAL			1936 CAMDEN AVE. #1, SAN JOSE, CA 95124						
2										
3	WATER-QUALITY SAMPLING INFORMATION									
4										
5	Project Name	DOUGLAS-WESTER ST.				Project No.	9432			
6	Date	SCOT. 21ST '94				Sample No.	44 N/A			
7	Samplers Name	ERIC LISSOL								
8	Sampling Location	1721 WESTER ST. OAK.								
9	Sampling Method	DEVELOPMENT ONLY								
10	Analyses Requested	N/A								
11	Number/Types of Sample Bottles used	N/A								
12	Method of Shipment	N/A								
13										
14	GROUND WATER					SURFACE WATER				
15	Well No.	MW#2			Stream Width	/				
16	Well Diameter (in.)	2"			Stream Depth					
17	Depth to Water Static (ft.)	19.50'			Stream Velocity					
18	Water in Well Box	NONE			Rained Recently					
19	Well Depth (ft.)	27.34'			Other					
20	Height of Water	7.84'								
21	Column in Well	7.84'			✓ 2-inch casing = 0.16 gal/ft					
22	Water Volume in Well	1.25 GAL			4-inch casing = 0.65 gal/ft					
23	Well Head Elevation				5-inch casing = 1.02 gal/ft					
24	Redevelop. Well Depth	27.64'			6-inch casing = 1.47 gal/ft					
25	Silt Removal	0.30'								
26										
27		TIME	DEPTH TO WATER (FEET)	VOLUME GALS. WITHDRAWN	TEMP. (F)	PH (S.U.)	COND. (MGOS/CM)	OTHER X	VOL.	REMARKS
28						6.700 (S.U.)	x 100 (MGOS/CM)			
29		10:00	19.50'	0	67.7°	6.59	18.23	x	0	TOP OF WATER TABLE CLEAR - SLIGHT PEBBLES, 0.0M BOON NO SILT
30		10:05	---	1.5	67.8°	6.55	18.39	x	1	VERY SLIGHTLY SILTY/FINE SAND
31		10:08	---	3.0	68.6°	6.61	19.09	x	2	
32		10:10	---	4.5	68.4°	6.66	18.56	x	3	
33		10:14	---	6.0	68.7°	6.66	15.72	x	4	
34		10:20	19.80'	7.5	68.3°	6.55	14.70	x	5	
35		10:23	---	9.0	68.4°	6.71	15.14	x	6	WATERING TURBIDITY
36		10:25	---	10.5	68.4°	6.81	16.97	x	7	TURBIDITY
37		10:27	---	12.0	68.3°	6.75	16.15	x	8	
38		10:30	---	13.5	68.5°	6.78	16.64	x	9	
39		10:32	20.12'	15.0	68.4°	6.79	16.96	x	10	PH STABLE
40	COMMENTS:	10:35	---	16.5	68.5°	6.80	16.70	x	11	LOW TO MOD. TURBIDITY
41		10:40	20.16'	18.0	68.6°	6.79	16.94	x	12	NO TURBIDITY STABLE

* ADDITIONAL 3.5 GALS. DRAWN TO NUMERICAL ACCESS SILENT SAND

GEN-TECH ENVIRONMENTAL 1936 CAMDEN AVE. #1, SAN JOSE, CA 95124

WATER-QUALITY SAMPLING INFORMATION

Project Name: DOUBLAS-WEBSTER ST. Project No. 9432
 Date: SEPT. 21ST. 1994 Sample No. WW#2 - GWS
 Samplers Name: ERIC LISSOL
 Sampling Location: 1721 WEBSTER ST. OAK.
 Sampling Method: DISP. BAILER
 Analyses Requested: TPH-G, BTEX
 Number/Types of Sample Bottles used: 2-40 mL VOA
 Method of Shipment: PACKED IN ICE

GROUND WATER		SURFACE WATER	
Well No.	<u>WW # 2</u>	Stream Width	
Well Diameter (in.)	<u>2"</u>	Stream Depth	
Depth to Water Static (ft.)	<u>19.90'</u>	Stream Velocity	
Water in Well Box		Rained Recent	
Well Depth (ft.)	<u>27.64'</u>	Other	
Height of Water	<u>7.74'</u>		
Column in Well	<u>7.74'</u>	<input checked="" type="checkbox"/> 2-inch casing = 0.16 gal/ft	
Water Volume in Well	<u>1.23 GALS.</u>	4-inch casing = 0.65 gal/ft	
Well Head Elevation		5-inch casing = 1.02 gal/ft	
Redevelop. Well Depth	<u>27.15'</u>	6-inch casing = 1.47 gal/ft	
Silt Removal	<u>0.11'</u>		

TIME	DEPTH TO WATER (FEET)	VOLUME GAL. WITHDRAWN	TEMP. (°F)	PH (S.U.)	COND. (MHOS/CM) x 100	OTHER x VOL.	REMARKS
10:50	19.90'	0	70.1°	6.79	14.59	x 0	LOW IN HD TURBIDITY SLIGHT PETROLEUM OIL
10:53	—	1.5	69.9°	6.87	14.67	x 1	
10:57	—	3.0	69.6°	6.82	14.07	x 2	
11:00	—	4.5	69.4°	6.83	14.06	x 3	REMARKS: STABILIZING
11:03	20.0' ✓	6.0	69.5°	6.85	14.11	x 4	SAMPLE

COMMENTS:

GEN-TECH ENVIRONMENTAL 1936 CAMDEN AVE. #1, SAN JOSE, CA 95124

WATER-QUALITY SAMPLING INFORMATION

Project Name: DOUGLAS - WEBSTER ST. Project No.: 9432
 Date: APT. 21ST 1994 Sample No.: DEVELOPEMENT
 Samplers Name: ERIC LISSOL
 Sampling Location: 1721 WEBSTER ST. OAK.
 Sampling Method: DEVELOPEMENT ONLY
 Analyses Requested: N/A
 Number/Types of Sample Bottles used: N/A
 Method of Shipment: N/A

GROUND WATER SURFACE WATER
 Well No.: MW #3 Stream Width:
 Well Diameter (in.): 2" Stream Depth:
 Depth to Water Static (ft.): 21.11' Stream Velocity:
 Water in Well Box: NONE Rained Recently:
 Well Depth (ft.): 26.86' Other:
 Height of Water: 5.75'
 Column in Well: 5.75' ✓ 2-inch casing = 0.16 gal/ft
 Water Volume in Well: 0.92 GAL 4-inch casing = 0.65 gal/ft
 Well Head Elevation: 5-inch casing = 1.02 gal/ft
 Redevelop. Well Depth: 28.52' 6-inch casing = 1.47 gal/ft
 Silt Removal: 1.66'

TIME	DEPTH TO WATER (FEET)	VOLUME GALS. WITHDRAWN	TEMP. (F)	PH (S.U.)	COND. (MHOS/CM) x 100	OTHER	REMARKS
8:20	21.11	0	66.0°	6.70	6.41	x 0	WATER @ TOP OF COLUMN CLEAR - CLEAR BOTTOM (DETAILED) SHOW SPOTTING
8:23		1.0	65.8°	6.93	6.80	x 1	VERY TURBID LT. BROWN SILT/FINE SAND
8:25		2.0	67.1°	6.96	7.36	x 2	
8:28		3.0	66.9°	6.98	6.68	x 3	
8:30		4.0	66.7°	7.05	6.91	x 4	
8:32	21.43 ✓	5.0	67.0°	7.06	6.19	x 5	
8:40		6.0	66.5°	6.92	6.52	x 6	
8:44		7.0	67.1°	6.90	6.77	x 7	MOD. TURBIDITY
8:48		8.0	66.8°	6.91	6.30	x 8	
8:50		9.0	66.6°	6.94	6.82	x 9	
8:52	21.39 ✓	10.0	66.7°	6.98	6.80	x 10	READING STABILIZING MOD. TURBIDITY
8:55		11.0	66.7°	6.96	6.72	x 11	
9:00	21.32 ✓	12.0	66.6°	6.99	6.73	x 12	MOD. TURBIDITY STABLE READINGS

AN ADDITIONAL 5.0 GALS WATER DRAWN FROM WELL TO REMOVE ANY ADDITIONAL SILT @ BOTTOM OF WELL -

GEN-TECH ENVIRONMENTAL 1936 CAMDEN AVE. #1, SAN JOSE, CA 95124

WATER-QUALITY SAMPLING INFORMATION

Project Name: DEVERGAS - WEBSTER ST. Project No. 9432
 Date: APT. 21ST 1994 Sample No. MW#3 - GWS
 Samplers Name: ERIC LISSOL
 Sampling Location: 1721 WEBSTER ST. OAK.
 Sampling Method: DISP. BAILEY
 Analyses Requested: TPH-G, BTEX
 Number/Types of Sample Bottles Used: 2-40ml vials
 Method of Shipment: PACKED IN ICE

GROUND WATER		SURFACE WATER	
Well No.	MW#3	Stream Width	
Well Diameter (in.)	2"	Stream Depth	
Depth to Water Static (ft.)		Stream Velocity	
Water in Well Box	NONE	Rained Recently	
Well Depth (ft.)	28.52'	Other	
Height of Water	7.25'		
Column in Well	7.25'	2-inch casing = 0.16 gal/ft	
Water Volume in Well	1.16 GALS.	4-inch casing = 0.65 gal/ft	
Well Head Elevation		5-inch casing = 1.02 gal/ft	
Redevelop. Well Depth	28.01'	6-inch casing = 1.47 gal/ft	
Silt Removal	0.09"		

TIME	DEPTH TO WATER (FEET)	VOLUME GALS. WITHDRAWN	TEMP. (F)	PH (S.U.)	COND. X100 (MHOS/CM)	OTHER X VOL.	REMARKS
9:20	21.21' ✓	0	65.1°	6.87	5.89	X 0	MOD. TURBIDITY, GREEN SPOTTING, SLIGHT PETROLEUM 2002
9:22	---	1.0	67.0°	6.98	6.48	X 1	
9:25	---	2.0	67.5°	6.94	6.56	X 2	
9:27	---	3.0	67.7°	6.96	6.54	X 3	READING STABILIZING
9:30	21.35' ✓	4.0	67.6°	7.00	6.53	X 4	READING STABLE


COMMENTS: SAMPLE TAKEN

AMER, INC.

783 E. Evelyn Avenue
 Sunnyvale, CA 94086
 (408) 738-3033 (408) 738-3035

CHAIN OF CUSTODY

Date 7-8-94 Page 1 of 3
 AMER Report # E314 (04071201-24)
 Turnaround: Normal 48 Hour 24 Hour




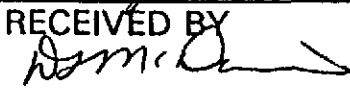
CLIENT			PROJECT NAME			8015M/TPH GASOLINE	8015M/TPH DIESEL	8020/602 BTEX	5520F (TOG)	8010/601	8240	8270	504/8011	METALS	ARCHIVE
ADDRESS			PROJECT MANAGER												
600 Tech Center Way			LI DOUGLAS GARAGE #9432												
1936 Campbell Ave. #1			ERIC LISSON E.C.S.												
SAN JOSE CA. 95124			Phone Number												
			(408) 559-1220												
CLIENT I.D.	LAB I.D.	DATE SAMPLED	MATRIX												
			AIR	SOIL	WATER										
EB-1@6'		7-8-94		X		X	X			Hold					
EB-1@15'		"		X		X	X			Hold					
EB-1@20'		"		X		X	X								
EB-1@25'		"			X	X	X								
EB-2@6'		"		X		X	X			Hold					
EB-2@15'		"		X		X	X			Hold					
EB-2@20'	ANSWERED JUL 25 1994	"		X		X	X								
EB-2@25'		"			X	X	X								
EB-2@30'		"				X	X	X							
EB-3@6'		"		X		X	X			Hold					
EB-3@15'		"		X		X	X			Hold					
EB-3@20'		"		X		X	X								
RELINQUISHED BY 			DATE 7-11-94			RECEIVED BY Cheryl Trella			DATE 7-11-94						
			TIME 9:30 am						TIME 9:00 A.M.						
RELINQUISHED BY Cheryl Trella			DATE 7-12-94			RECEIVED BY WJM c/wanda			DATE 7-12-94						
			TIME 2:40 pm						TIME 2:40 pm						

AMER, INC.

783 E. Evelyn Avenue
 Sunnyvale, CA 94086
 (408) 738-3033 (408) 738-3035

CHAIN OF CUSTODY

Date 7-8-94 Page 2 of 3
 AMER Report # E314
 Turnaround: Normal 48 Hour 24 Hour

CLIENT			PROJECT NAME			8015M/TPH GASOLINE	8015M/TPH DIESEL	8020/602 BTEX	5520F (TOG)	8010/601	8240	8270	504/8011	METALS	ARCHIVE		
ADDRESS			PROJECT MANAGER														
1936 Camden Ave., Suite 8 San Jose, CA 95124 (408) 559-1848			L. DOUBLET #9432 ERIC LISSOL w/ E.C.S. Phone Number (408) 559-1220														
CLIENT I.D.	LAB I.D.	DATE SAMPLED	MATRIX														
			AIR	SOIL	WATER												
ES-3-6W2		7-8-94			X	X	X										
ES-4-@10'		"		X		X	X			Hold							
ES-4-@15'		"		X		X	X			Hold							
ES-4-@20'		"		X		X	X										
ES-4-6W2		"			X	X	X										
ES-5-@10'				X		X	X			Hold							
ES-5-@15'				X		X	X			Hold							
ES-5-@20'				X		X	X										
ES-5-6W2					X	X	X										
						X	X										
						X	X										
RELINQUISHED BY 			DATE 7-11-94			RECEIVED BY 			DATE 7-11-94								
RELINQUISHED BY 			DATE 7-12-94			RECEIVED BY 			DATE 7-12-94								
			TIME 9:00am						TIME 9:00 AM								
			TIME 2:40 pm						TIME 2:40 pm								


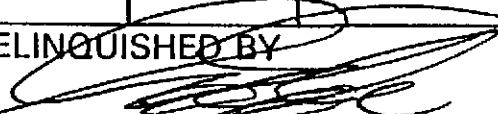


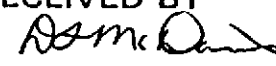
ANSWERED
 JUL 25 1994
 RECEIVED

AMER, INC.

783 E. Evelyn Avenue
 Sunnyvale, CA 94086
 (408) 738-3033 (408) 738-3035

CHAIN OF CUSTODY

Date 7-8-94 Page 3 of 3
 AMER Report # E314
 Turnaround: Normal 48 Hour 24 Hour

CLIENT			PROJECT NAME			8015M/TPH GASOLINE	8015M/TPH DIESEL	8020/602 BTEX	5520F (TOG)	8010/601	8240	8270	504/8011	METALS	ARCHIVE
ADDRESS			PROJECT MANAGER												
 1936 Camden Ave., Suite Y San Jose, CA 95124 (408) 539-1040			DOUGLAS #9432 ERIC USSOL w/ E.C.S. Phone Number (408) 539-1220												
CLIENT I.D.	LAB I.D.	DATE SAMPLED	MATRIX												
			AIR	SOIL	WATER										
60-6e10		7-8-94		X		X	X								
60-6e15				X		X	X								
60-6e20				X		X	X								
60-6-6w3					X	X	X								
RELINQUISHED BY 			DATE 7-11-94 TIME 9:00 AM			RECEIVED BY 			DATE 7-11-94 TIME 9:00 AM						
RELINQUISHED BY - 			DATE 7-12-94 TIME 2:40 PM			RECEIVED BY 			DATE 7-12-94 TIME 2:40 PM						

ANSWERED
 JUL 25 1994
 RECEIVED

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:

GEN-TECH ENVIRONMENTAL, INC.

1936 Camden Avenue, # 1

San Jose, CA 95124

MATRIX: SOIL

PROJECT MANAGER: Eric Lissol

PROJECT: L. Douglas Garage, # 9432

DATE SAMPLED: 07-08-94

DATE RECEIVED: 07-12-94

DATE REPORTED: 07-19-94

AMER ID: E314

Client I.D.	AMER I.D.	8015M/ TPH-GASOLINE	DF
EB-1@20'	E4071203	ND	1
EB-2@20'	E4071207	300	1
EB-3@20'	E4071211	51	1
EB-4@20'	E4071215	ND	1
EB-5@20'	E4071219	650	1
EB-6@20'	E4071223	68	1

Units

mg/kg

Detection Limits (DL)

1mg/kg

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.

Reviewed By



Lei Chen, Laboratory Manager

RECEIVED
JUL 25 1994
ANSWERED _____

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8020

CLIENT:
GEN-TECH ENVIRONMENTAL, INC.
1936 Camden Avenue, # 1
San Jose, CA 95124
MATRIX: SOIL
PROJECT MANAGER: Eric Lissol
PROJECT: L. Douglas Garage, # 9432

DATE SAMPLED: 07-08-94
DATE RECEIVED: 07-12-94
DATE REPORTED: 07-19-94
AMER ID: E314

Client I.D.	AMER I.D.	Benzene	Toluene	Ethyl Benzene	Total Xylene	DF
EB-1@20'	E4071203	ND	ND	ND	ND	1
EB-2@20'	E4071207	200	1700	260	3000	10
EB-3@20'	E4071211	39	560	320	2900	10
EB-4@20'	E4071215	ND	ND	ND	ND	1
EB-5@20'	E4071219	170	5200	4400	48000	10
EB-6@20'	E4071223	ND	22000	4300	23000	2.5
Units		ug/kg	ug/kg	ug/kg	ug/kg	
Detection Limits (DL)		5.0ug/kg	5.0ug/kg	5.0ug/kg	5.0ug/kg	

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.

Reviewed By



Lei Chen, Laboratory Manager

RECEIVED
JUL 25 1994
ANSWERED

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
GEN-TECH ENVIRONMENTAL, INC.
1936 Camden Avenue, # 1
San Jose, CA 95124
MATRIX: WATER
PROJECT MANAGER: Eric Lissol
PROJECT: L. Douglas Garage, # 9432

DATE SAMPLED: 07-08-94
DATE RECEIVED: 07-12-94
DATE REPORTED: 07-19-94
AMER ID: E314

Client I.D.	AMER I.D.	8015M/ TPH-GASOLINE	DF
EB-1-GWS	E4071204	62000	50
EB-2-GWS	E4071208	160000	50
EB-3-GWS	E4071212	87000	50
EB-4-GWS	E4071216	350000	50
EB-5-GWS	E4071220	120000	50
EB-6-GWS	E4071224	230000	50
Units		ug/l	
Detection Limits (DL)		50ug/l	

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.

Reviewed By



Lei Chen, Laboratory Manager

RECEIVED
JUL 25 1994
ANSWERED

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8020


CLIENT:
GEN-TECH ENVIRONMENTAL, INC.
1936 Camden Avenue, # 1
San Jose, CA 95124
MATRIX: WATER
PROJECT MANAGER: Eric Lissol
PROJECT: L. Douglas Garage, # 9432

DATE SAMPLED: 07-08-94
DATE RECEIVED: 07-12-94
DATE REPORTED: 07-19-94
AMER ID: E314

Client I.D.	AMER I.D.	Benzene	Toluene	Ethyl Benzene	Total Xylene	DF
EB-1-GWS	E4071204	ND	26	850	8900	50
EB-2-GWS	E4071208	5300	20000	2100	17000	50
EB-3-GWS	E4071212	1400	21000	1700	19000	50
EB-4-GWS	E4071216	290	1300	3200	31000	50
EB-5-GWS	E4071220	2100	13000	1300	16000	50
EB-6-GWS	E4071224	10000	34000	2300	16000	50
Units		ug/l	ug/l	ug/l	ug/l	
Detection Limits (DL)		0.5ug/l	0.5ug/l	0.5ug/l	0.5ug/l	

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.

Reviewed By


Lei Chen, Laboratory Manager

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EPA M. 8015/8020 TEST QA/QC TABLE

AMER WORKORDER: E314

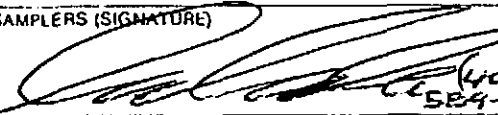
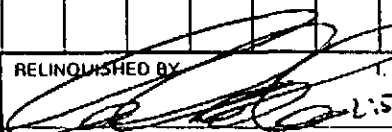
AMER I.D. Number: E4071803-MSP
 GEN-TECH Project : L. Douglas Garage #9432
 Ext/Prep. Method: EPA 5030, DHS TPH
 Date: 07/19/94
 Analyst: RL

Analytical Method: EPA M. 8015/8020
 Analysis date: 07/19/94
 Analyst: LC/RL
 Matrix: Soil
 Unit: mg/kg

Analyte	Sample Result	Spike Level	Matrix Spike Result	Ms Recovery %	Matrix Spike Dup. Result	MSD Recovery %	Average Recovery %R	LCL %R	UCL %R	RPD %	UCL %RPD
Benzene	0.00	0.050	0.057	114	0.045	90	102	66	142	24	21
Toluene	0.00	0.050	0.053	106	0.042	84	95	59	139	23	21
Chlorobenzene	0.00	0.050	0.056	112	0.050	100	106	60	133	11	21
TPH -g	0.00	1.250	1.310	105	1.350	108	106	60	130	3	30

Notes:
 Spike Level- Level of Concentration Added to the Sample
 MS Result- Matrix Spike Result
 MS %R- Matrix Spike Percent Recovery
 MSD Result- Matrix Spike Duplicate Result
 MSD %R- Matrix Spike Duplicate Percent Recovery
 LCL- Lower Criteria Level
 UCL- Upper Criteria Level
 RPD- Relative Percent Difference

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PROJ MGR <u>ERIC LISSOL / E.C.S.</u> COMPANY <u>G.T.E.</u> ADDRESS <u>1936 CAMDEN AVE #1</u> <u>SAN JOSE, CA. 95124</u> SAMPLERS (SIGNATURE)  (PHONE NO.) <u>(408) 559-1220</u>				ANALYSIS REPORT																	
SAMPLE ID.	DATE	TIME	MATRIX PRESERV.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	NUMBER OF CONTAINERS	
WW # 1 - GWS	9/21	12:40	WATER	X	X																2
WW # 2 - GWS	"	11:05	"	X	X																2
WW # 3 - GWS	"	9:35	"	X	X																2
PROJECT INFORMATION				SAMPLE RECEIPT				RELINQUISHED BY 1.			RELINQUISHED BY 2.			RELINQUISHED BY 3.							
PROJECT NAME <u>DOUBLAS - WEBSTER ST.</u>				TOTAL NO. OF CONTAINERS <u>6</u>				SIGNATURE 			SIGNATURE <u>Pheryl Trillo</u>										
PROJECT NUMBER <u>#9432</u>				HEAD SPACE				(TIME) <u>9/21/94</u>			(TIME) <u>2:58</u>										
P.O. #				REC'D GOOD CONDITION/COLD				(PRINTED NAME) <u>ERIC LISSOL</u>			(PRINTED NAME) <u>GEN TECH</u>			(PRINTED NAME)							
TAT <u>STANDARD 5-DAY</u>				CONFORMS TO RECORD				(DATE) <u>9/21</u>			(DATE) <u>9/27</u>			(DATE)							
								(COMPANY) <u>G.T.E.</u>			(COMPANY) <u>GTE</u>			(COMPANY)							
SPECIAL INSTRUCTIONS/COMMENTS:				RECEIVED BY 1.				RECEIVED BY 2.			RECEIVED BY (LABORATORY) 3.										
				SIGNATURE <u>Pheryl Trillo</u>				SIGNATURE <u>Bill Ray</u>													
				(TIME) <u>2:50</u>				(TIME) <u>3:PM</u>													
								(PRINTED NAME) <u>GEN TECH</u>			(PRINTED NAME)										
								(DATE) <u>9/21</u>			(DATE)										
								(COMPANY) <u>GTE</u>			(COMPANY)										
											(LAB)										



Hull Development Labs, Inc.

Gen-Tech Environmental
1936 Camden Ave., Suite 1
Campbell, CA 95124
Attn: Stuart Solomon

Date:	10/3/94
Date Received:	9/27/94
Date Analyzed:	9/28/94
Lab #:	See Table
Project #:	9432
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	MW#1- GWS	MW#2- GWS	MW#3- GWS	Units	Detection Limit	EPA Method #
Sample Matrix	Water	Water	Water			
Sample Date	9/21/94	9/21/94	9/21/94			
Sample Time	12:40	11:05	9:35			
Lab #	A5793	A5794	A5795			
TPH-Gas	ND	61,300	394,000	µg/liter	50.0 µg/l	8015M
Benzene	ND	3,000	1,200	µg/liter	0.3 µg/l	8020
Toluene	ND	3,900	ND	µg/liter	0.3 µg/l	8020
Ethyl Benzene	ND	160	1,800	µg/liter	0.3 µg/l	8020
Xylenes	ND	4,500	4,000	µg/liter	0.3 µg/l	8020

1. ND: None detected at specified detection limit
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director