

OUR JOB P90103

MONITORING FACILITY INSTALLATION
SOIL & GROUNDWATER CHEMICAL TESTING
FIRE STATION NO. 1
7494 DONOHUE DRIVE
DUBLIN, CALIFORNIA

June 1990

BSK & Associates, Geotechnical Consultants, Inc

Geotechnical Engineering + Engineering Geology + Environmental Engineering + Engineering Laboratories + Chemical Laboratories

June 27, 1990

OUR JOB P90103

Dougherty Regional Fire Authority
9399 Fircrest Lane
San Ramon, California 94583

Attention: Mr. Tom Hathcox
Fire Marshall

SUBJECT: Monitoring Facility Installation
Soil and Groundwater Chemical Testing
Fire Station No. 1
7494 Donohue Drive
Dublin, California

Gentlemen:

As requested and authorized, we have completed the installation of three groundwater monitoring wells, and performed sampling and chemical testing of soil and groundwater obtained from the vicinity of a former Underground Storage Tank (UST) cluster at Fire Station No. 1; 7494 Donohue Drive in Dublin, California.

The project site location with respect to surrounding geographical features is shown on Figure 1, Vicinity Map. The former tank group location and groundwater well locations with respect to the Fire Station are shown on the Site Plan portion of Figure 1.

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BACKGROUND

According to Fire Department authorities, three USTs containing gasoline and diesel were in use at the project site in the 1960's. The largest tank was 4,000 gallons in capacity and stored gasoline. The two smaller tanks were 550 gallons in capacity and stored diesel fuel and gasoline. In 1965 or 1966, the 550-gallon gasoline tank was observed to not maintain fuel levels, and was subsequently abandoned by grouting in place. The two remaining tanks were in use until 1989, when they were removed by Hageman-Shank, Inc. in November of that year. During removal, soils in the close vicinity of the abandoned gasoline tank were observed to be contaminated by petroleum product. Chemical tests revealed Total Petroleum Hydrocarbons, as gasoline levels to 1500 parts per million (See the Tank Removal Report, Appendix "B").

Contaminated soil was removed from the tank excavation and aerated on-site, under a permit from the Bay Area Air Quality Management District (BAAQMD) and with the approval of the Alameda County Environmental Health Department (ACEH). Following adequate aeration of the soil pile, the excavated spoils were used as backfill in the UST group excavation, with approval by the ACEH.

SITE LOCATION AND DESCRIPTION

The project site is the Dougherty Regional Fire Station No. 1, located at 7494 Donohue Drive in Dublin, California. The site is approximately one-third acre in size, and consists of a fire station building and paved parking area. The former tank group was located behind the fire truck garage, in the western portion of the site, as shown on Figure 1. The former tank excavation has been backfilled as described, and subsequently repaved with asphalt. A Convault-type above-ground tank is presently located in the former UST location.

The Fire Station property is fenced on the south, west and north perimeters. It is bound to the east by Donohue Drive, to the north by an open, concrete-lined storm channel, to the west by

an apartment complex, and to the south by a vacant lot and parking area. Surrounding neighborhoods are primarily residential, with extensive commercial development located one to two blocks to the south. The site area is located near the center of the San Ramon Valley, at a surface elevation of approximately 350 feet above mean sea-level. Topography slopes gently to the east-southeast at a gradient of approximately one and one-half percent.

SCOPE OF WORK

As requested by the RFP, and in conformance with our Proposal PR90046, dated March 29, 1990, we have installed three groundwater monitoring wells at pre-determined locations at the site, and performed soil and groundwater sampling and testing of the soils and groundwater obtained from the installed wells. In addition, we have determined groundwater flow direction and gradient.

FIELD WORK

Four soil borings were drilled to a maximum depth of 30 feet. Three borings to that depth were completed as Groundwater Monitoring Wells MW-1, MW-2 and MW-3. The fourth boring, SB-1, was drilled to 13 feet in depth. Groundwater was not encountered in this boring. The boring was immediately sealed with 11-sack sand grout upon completion. The boring locations are shown in Figure 1, Site Plan. The borings were drilled on April 16 and 17, 1990.

The three groundwater monitoring well locations were designated with respect to the expected direction of localized groundwater flow, which typically follows surface topography. The locations are also those recommended in a Work Plan developed previously for this project by a previous consultant. The location of Well MW-3 was moved, however, from its original planned location to a point approximately 15 feet east. Boring SB-1 was originally to have been developed as Well MW-3, but significant amounts of contaminated soil were encountered and, therefore, the boring was not completed to groundwater. The present location of MW-3 was agreed upon in an on-site meeting between Gil Wistar of ACEH, Tom Hathcox of Dougherty Regional Fire Authority, and BSK & Associates personnel.

The groundwater monitoring wells and soil borings were drilled with a Mobile truck-mounted B-53 drill rig using an 8-inch hollow stem auger. A 2.0-inch I.D. split-spoon sampler, housing three 2 x 6-inch stainless steel sampling tubes, was used for soil sampling. Soils were classified in the field by a geologist using the Unified Soil Classification System as shown on the Legend for Test Hole Logs, Figure 2. The Logs of Borings are presented in Figures 3 through 6.

The groundwater monitoring wells were constructed in general accordance with Figure 7, Typical Groundwater Monitoring Well. Two-inch PVC was used, with 15 to 20 feet of 0.020 slotted screen below 8-1/2 to 14 feet of casing. Lonestar grade 2/12 sand was used as annular fill around the screen. Twelve inches of 1/4-inch pelletized Bentonite were placed as spacer between the annular sand and 11-sack sand slurry seal or neat cement seal.

Soil samples were obtained in the borings at 5-foot intervals to first encountered groundwater. The samples were observed and screened using a Photo-ionization Detector (PID). Samples retained for testing were removed from the sampler and immediately capped with teflon sheeting beneath a pressure-fitted plastic cap, taped, labeled, refrigerated and delivered to our State-certified laboratory for pollutant chemical analysis. Soil samples were obtained below the groundwater table for observation using a 1-3/8 inch I.D. split-spoon sampler.

Equipment used during drilling and sampling were cleaned by hi-pressure, hi-temperature wash and/or non-phosphate detergent hot-water wash, and rinsed prior to usage. Soiled auger was cleaned at the site within a rinsate containment area. The rinsate was transferred into a DOT-approved 55-gallon drum. Drilling and construction spoils from the monitoring wells were containerized in approved drums and stored at the site until the proper fate of the contents could be determined. Development and purge water from the monitoring wells were also containerized and stored at the site. Stored drums were affixed with labels specifying the type of contents, source and suspected contaminants.

Alameda County Water District personnel observed the construction and/or seal of the monitoring wells.

Relative elevations for each monitoring well were surveyed by BSK personnel to an accuracy of one-hundredth of a foot using a Berger elevating transit. The well elevation is that of the top of the PVC well casing unless specified otherwise. The reference elevation used was the casing top of the Monitoring Well MW-1. This elevation was designated at +350-feet MSL, to reflect the approximate surface elevation of the site as determined from a USGS Quad Map. Water depths were determined using a Solinst electric sounding tape marked in twentieths of a foot. Depths to water are referenced to the reference elevation. The groundwater gradient was determined following groundwater measurements taken several days after monitoring well placement. The gradient demonstrates flow to the east-southeast with a 0.7% grade. Groundwater flow direction is presented in Figure 8.

Groundwater well development was achieved using a PVC hand pump. The well was pumped until sand and silt were removed from the well bottom, and the removed water achieved a degree of clarity. Following development, the well was allowed to equilibrate for three days. Prior to sampling, the well was purged of 7.5 to 9.5 well volumes of water using a PVC hand-pump. Water temperature, pH and conductivity were measured for every 5 gallons of removed water. The Sample Collection Logs are presented in Figures 9, 10 and 11. Water sampling was performed using a teflon bailer. Samples were sealed, labeled, and refrigerated for delivery to the analytical laboratory. Water samples were analyzed for Benzene, Toluene, Xylene, Ethylbenzene (BTXE), and Total Volatile Hydrocarbons (TVH) as gasoline.

SUBSURFACE CONDITIONS

The site subsurface conditions, as exposed in Borings MW-1, MW-2, MW-3 and SB-1, consist primarily of 16 to 28 feet of dark brown and dark gray silty clay and clayey silt, underlain by light brown and light gray sandy clay. A five-foot thick layer of light brown sandy clay was also encountered at eight feet in depth in Boring MW-3. Few to no pores were visible in the soils encountered; occasional small pebbles were observed after 20 feet in depth.

Groundwater was first encountered at a depth of approximately 16 feet in Borings MW-1, MW-2 and MW-3. Stabilized water levels were observed between 10 and 11 feet in depth, indicating a pressure head of 5 to 6 feet. Water level measurements for derivation of flow direction and gradient were made on May 24, 1990. Flow direction was observed to be east-southeast (S80°E) at a gradient of 0.7 percent (see Figure 8).

Indications of hydrocarbon contamination were noted in the field during the drilling of the four borings. The presence of petroleum compounds was detected olfactorily and by PID from 6 to 16 feet in depth. Soil discoloration was observed in SB-1 near 7 to 8 feet, and MW-2 at 7 feet. Strong odors were noticed in MW-3 near 11 feet, and SB-1 near 12 feet in depth. Contaminant odors often smelled strongly of hydrogen sulfide (rotten eggs) suggesting aged product in the soils. In one location, where TPH was detected in soils in addition to TVH, the TPH value exceeded the TVH value by a factor of 2 at that location, suggesting either aged gasoline product, or heavier fuel product.

Contamination of groundwater was not observed in the field during drilling, development or sampling. Chemical analyses of water samples did not detect the presence of petroleum contamination.

CHEMICAL ANALYSES

Soil and water samples obtained from Borings MW-1, MW-2 and MW-3, as well as soil samples from Boring SB-1, were tested for the presence of Benzene, Toluene, Xylene and Ethylbenzene (BTXE), Total Petroleum Hydrocarbons (TPH) as diesel, and Total Volatile Hydrocarbons (TVH) as gasoline.

A summation of the chemical analyses results is presented for soil and water, respectively, in the following tables. The Chemical Test Data Sheets are presented in Appendix "A" as Figures A-1 through A-16. The project Chain-of-Custody documentation is provided as Figures A-17 through A-19.

SOILS ANALYSES

TABLE 1
(Results in PPM)

<u>Sample Location</u> <u>Boring and Depth</u>	<u>Benzene</u> <u>(0.3*)</u>	<u>Toluene</u> <u>(0.3*)</u>	<u>Xylene</u> <u>(1*)</u>	<u>Ethylbenzene</u> <u>(1*)</u>
MW-1, 5.5 feet	ND	ND	ND	ND
MW-1, 10.5 feet	0.12	0.51	0.37	0.23
MW-1, 15.5 feet	ND	ND	ND	ND
MW-2, 5.5 feet	ND	ND	ND	ND
MW-2, 10.5 feet	1.20	0.85	0.45	2.80
MW-2, 15.5 feet	ND	ND	ND	ND
MW-3, 5.5 feet	ND	ND	ND	ND
MW-3, 11.0 feet	0.92	1.20	0.63	1.80
MW-3, 15.5 feet	ND	ND	ND	ND
SB-1, 5.5 feet	ND	ND	ND	ND
SB-1, 10.0 feet	1.20	1.20	2.90	3.30
SB-1, 12.5 feet	0.49	0.24	0.12	0.96

ND - None Detected

*Guideline: State Water Resources Control Board, LUFT
Field Manual, Table 2-1, Page 21, May 1988

TABLE 2
(Results in PPM)

<u>Sample Location</u> <u>Boring and Depth</u>	<u>TPH</u> <u>(1000)*</u>	<u>TVH</u> <u>(100)*</u>
MW-1, 5.5 feet	NT	ND
MW-1, 10.5 feet	NT	73
MW-1, 15.5 feet	NT	ND
MW-2, 5.5 feet	NT	ND
MW-2, 10.5 feet	NT	170
MW-2, 15.5 feet	NT	ND
MW-3, 5.5 feet	NT	ND
MW-3, 11.0 feet	NT	240
MW-3, 15.5 feet	NT	ND
SB-1, 5.5 feet	NT	ND
SB-1, 10.0 feet	470	260
SB-1, 12.5 feet	NT	66

ND - None Detected

NT - Not Tested

*Guideline: State Water Resources Control Board, LUFT Field
Manual, Table 2-1, Page 21, May 1988

WATER ANALYSES

TABLE 1
(Results in PPB)

<u>Sample Location</u> <u>Boring Number</u>	<u>Benzene</u> <u>(1.0*)</u>	<u>Toluene</u> <u>(100)+</u>	<u>Xylene</u> <u>(1750)*</u>	<u>Ethylbenzene</u> <u>(680)*</u>
MW-1	ND	ND	ND	ND
MW-2	ND	ND	ND	ND
MW-3	ND	ND	ND	ND

ND - None Detected

*DHS Primary Drinking Water Standard (3/89)

+ - DHS Action Level

TABLE 2
(Results in PPB)

<u>Sample Location</u> <u>Boring Number</u>	<u>TVH</u> <u>(100)*</u>
MW-1	ND
MW-2	ND
MW-3	ND

ND - None Detected

*Quantified Action Levels are not provided for this parameter.
The amount given is often informally used as a threshold value.

CONCLUSIONS

As shown in the preceding Tables, evidence of petroleum product contamination of the site soils was found. At this time, however, groundwater does not appear to be affected.

Soil contaminant levels in twelve soil samples exceeded the recommended amounts of BTXE or TVH allowable in soils, with respect to distance from groundwater, and selected site characterization parameters presented in Table 2-1 of the LUFT Field Manual. Each of the four borings contained at least one sample that exceeded the limits. The borings having the greatest amounts of contaminants were MW-3 and SB-1, located east of the former tank cluster, and down-gradient from the USTs. The boring showing the least contaminants was MW-1, located up-gradient from the former USTs. Soil contamination was observed between 6 and 16 feet in depth, with the greatest concentrations observed near 11 and 12 feet below ground surface. This may indicate that the contaminants are confined to some extent by soil saturation in the capillary fringe above groundwater. The distinct hydrogen sulfide odor and possible predominance of heavier hydrocarbon compounds (SB-1 at 10-feet) suggest that petroleum contaminants are of an advanced age. This would be consistent with leakage from the small gasoline tank abandoned in 1965 or 1966 due to the loss of product.

Contamination of the groundwater by petroleum compounds was not detected during this study. Contamination of the groundwater could occur in the future due to fluctuation in the water piezometric level and leaching of product from the overlying soils. It is also considered likely that the suspected accumulation of product near 12 feet in depth reflects pollutant accumulation atop the capillary fringe.

Delineation of the vertical and horizontal extents of soil contamination has not been determined in this study, as no borings were located outside of the contaminated area, and current soil contaminant depth data is not considered conclusive. Determination of future effects of this release on groundwater has not been fully addressed, due to the close proximity to groundwater of significant contamination.

In accordance with our agreement, we will continue to monitor the groundwater monitoring wells on a quarterly basis for a period of one year and report our findings.

REPORT DISTRIBUTION

Copies of this report should be submitted to the Alameda County Environmental Health District (Attention Gil Wistar) for their review. We are providing you with extra copies for this purpose. We understand that copies of this report will be forwarded by ACEH to the Regional Water Quality Control Board in Oakland for their review.

LIMITATIONS

The findings and conclusions presented in this report are based on field review and observations, and from the limited testing program described in this report. This report has been prepared in accordance with generally accepted methodologies and standards of practice in the area. No other warranties, expressed or implied, are made as to the findings, conclusions and recommendations included in the report.

The findings of this report are valid as of the present. The passage of time, natural processes or human intervention on the property or adjacent property can cause changed conditions which can invalidate the findings and conclusions presented in this report.

BSK & Associates is pleased to have been of service to you during this project. If you have questions concerning the contents of this report, please do not hesitate to contact us.

* * * *

The following are attached and complete this report:

FIGURE 1: Vicinity Map and Site Plan
FIGURE 2: Legend for Test Hole Logs
FIGURES 3-6: Boring Logs
FIGURE 7: Typical Groundwater Monitoring Well
FIGURE 8: Groundwater Flow Direction and Gradient
FIGURES 9-11: Sample Collection Logs

Appendix "A"

FIGURES A-1
through A-16: Laboratory Chemical Test Data Sheets

FIGURES A-17
through A-19: Project Chain of Custody Records

Appendix "B"

FIGURES B-1
through B-10: Hageman-Schank, Inc. Tank Removal Report

Respectfully submitted,
BSK & Associates

Alex Y. Eskandari

Alex Y. Eskandari, P.E.
Project Manager
C.E. 38101

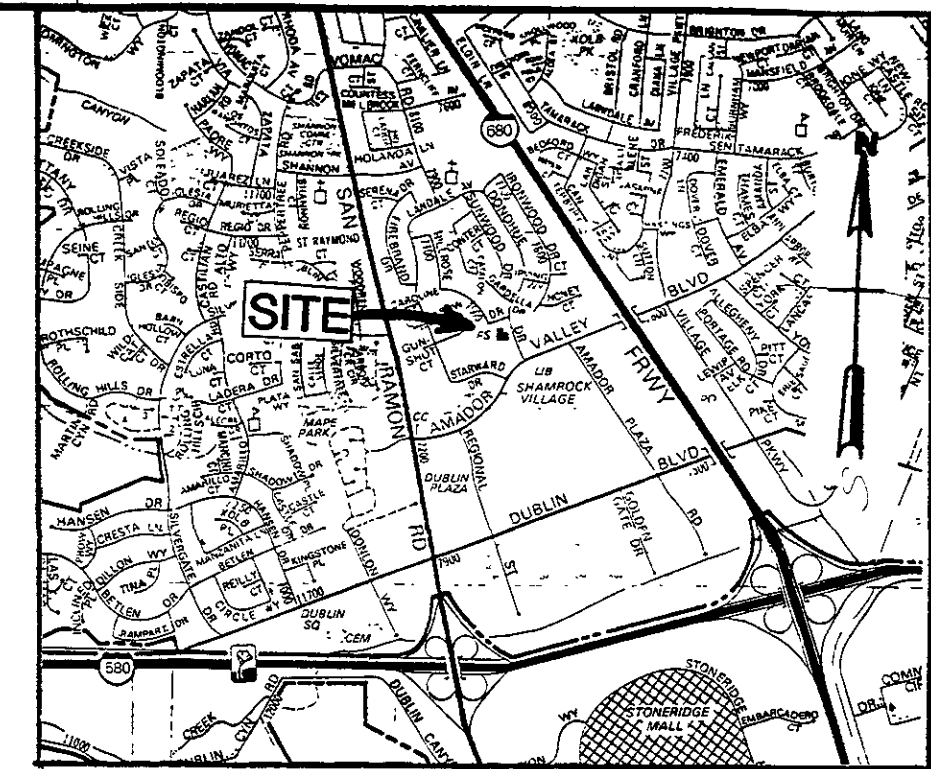
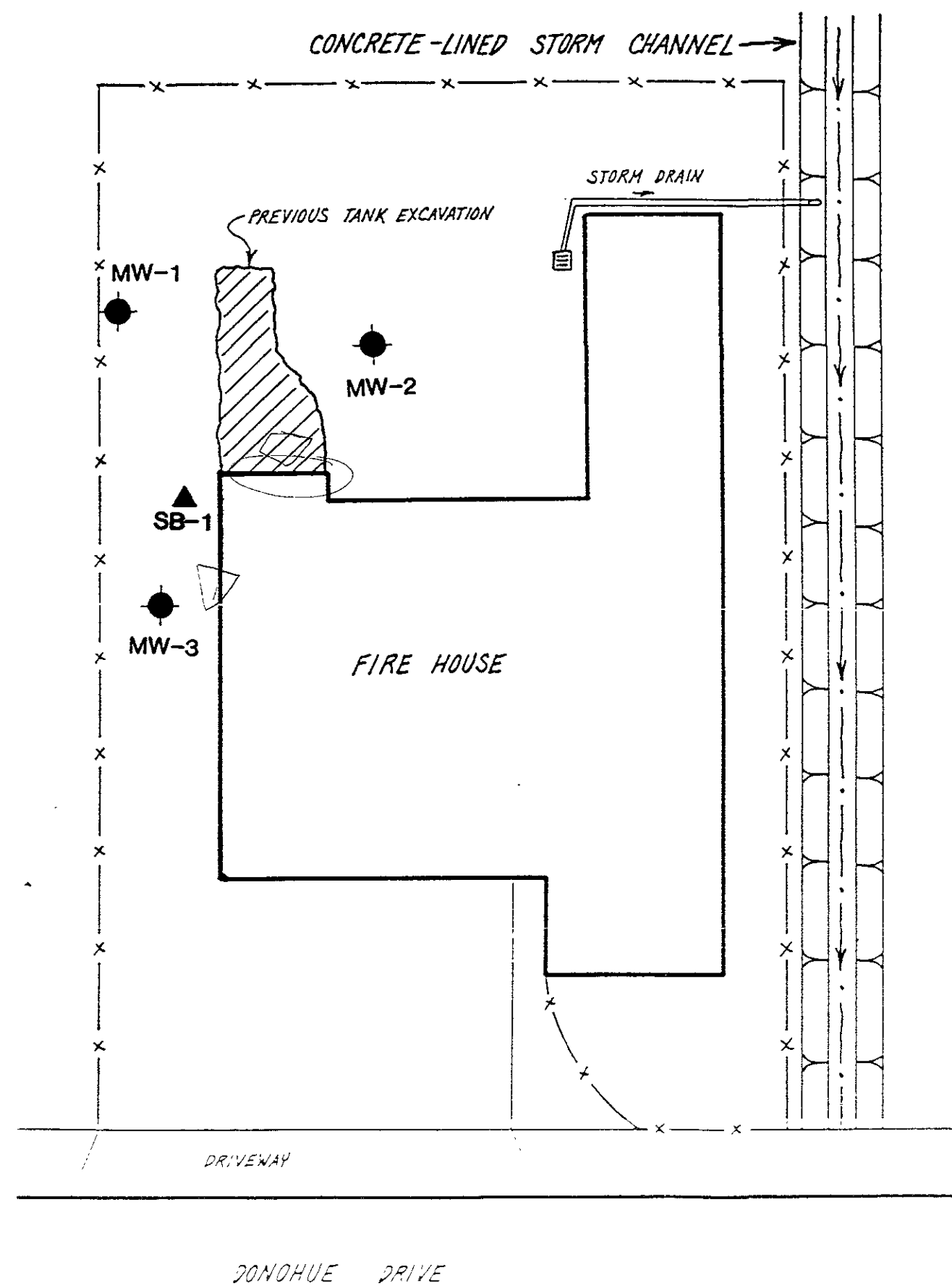
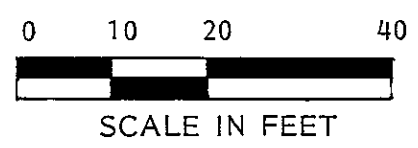
Tim W. Berger

Tim W. Berger
Staff Geologist





AYE/TWB:kl
(MISC#2)

Distribution:
Dougherty Regional Fire Authority (5 copies)



VICINITY MAP

LEGEND:

-  MW - Denotes Approximate Location of Monitoring Facilities installed on 5/16 and 5/17/90
-  SB-1 Denotes Approximate Location of Soil Boring drilled and backfilled with neat cement on 5/16/90

SITE PLAN

MONITORING FACILITY
INSTALLATIONS & CHEMICAL TESTING
7494 DONOHUE DRIVE
DUBLIN, CALIFORNIA
FOR DOUGHERTY REGIONAL
FIRE AUTHORITY

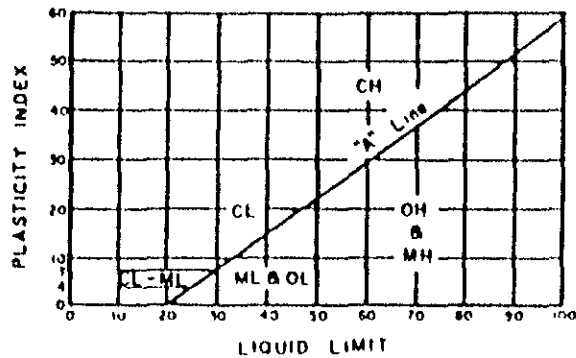
Base By: Hageman-Schank, Inc., print titled: "Site Map",
Figure 2, undated

Job No. P90103
June 1990
FIGURE: 1



LEGEND FOR TEST HOLE LOGS

METHOD OF SOIL CLASSIFICATION (Unified Soil Classification System)			
MAJOR DIVISIONS	SYMBOLS	TYPICAL NAMES	
GRAVELS (More than 1/2 of coarse fraction > no. 4 sieve size)	GW	Well graded gravels or gravel-sand mixtures, little or no fines	
	GP	Poorly graded gravels or gravel-sand mixtures, little or no fines	
	GM	Silty gravels, gravel-sand-silt mixtures	
	GC	Clayey gravels, gravel-sand-clay mixtures	
	SANDS (More than 1/2 of coarse fraction < no. 4 sieve size)	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, sand-clay mixtures
SILTS & CLAYS (More than 1/2 of soil < no. 200 sieve size)	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	
	SILTS & CLAYS (LL > 50)	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 silty clays, organic silts



PLASTICITY CHART

Key to Samples

- Indicates depth of undisturbed sample
 - Sample not recovered
 - Indicates depth of disturbed sample
 - Indicates depth of Standard Penetration Split Spoon Sample

DATE: 5/16/90
 LOGGED BY: KAO
 ELEVATION: +350 T.O.C.
 WATER LEVEL: +339.99 (6/6/90)
 EQUIPMENT: Mobile B-53, 8" Hollow Stem Auger

LOG DESIGNATION MW-1

JOB: P90103
 FIGURE: 3

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS / FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
						PVT	3-1/2" Asphaltic Concrete, 9" Aggregate Base	
						CH	SILTY CLAY: Dark brown mottled white, moist, few small pores, stiff	
5	2.0	23			1		Grades slightly gray	PID* = 0.0
10	2.0	22			2			PID = 3.1 in auger PID = 22 in sample
						CL-CH	SILTY CLAY: Dark gray, moist, no pores to few pores, very stiff ▽ 1 hr AD**	
15	2.0	23			3	CL	SANDY CLAY: Grey mottled white and brown, no pores, very stiff ▽ ATD***	PID = 2.2 in auger PID = 0.0
20	3 18	14			4		*PID - denotes Photo-Ionization Detector ** AD - denotes groundwater level after drilling ***ATD - denotes groundwater level at the time of drilling some small pores grades with some pea gravel grades darker gray	PID = 0.0
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

- (1) SAMPLER INSIDE DIAM.
- (2) 140lb HAMMER - 30 INCH DROP.
- (P) HYDRAULICALLY PUSHED

DATE: 5/16/90
 LOGGED BY: KAO
 ELEVATION: +350 T.O.C.
 WATER LEVEL: +339.99 (6/6/90)
 EQUIPMENT: Mobile B-53, 8" Hollow Stem Auger

LOG DESIGNATION MW-1 (continued)

JOB: P90103
 FIGURE: 3

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS / FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
	1 3/8"	10			5	CL	SANDY CLAY: Dark gray, mottled white and yellow, no pores, moist, very stiff	
30	1 3/8"	14			6			Boring terminated at 30 feet Monitoring Well installed having 8-1/2 feet of solid over 20 feet of slotted casing 8 feet of cement surface seal

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

- (1) SAMPLER INSIDE DIAM.
- (2) 140 lb HAMMER - 30 INCH DROP.
- (P) HYDRAULICALLY PUSHED

BSK
 & Associates

DATE: 5/17/90
 LOGGED BY: KAO
 ELEVATION: +349.54 T.O.C.
 WATER LEVEL: +340.06 (6/6/90)
 EQUIPMENT: Mobile B-53, 8" Hollow Stem Auger

LOG DESIGNATION MW-2

JOB: P90103
 FIGURE: 4

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS / FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
						PVT	3" Asphaltic Concrete, 8" Aggregate Base	
						CH	SILTY CLAY: Dark brown, moist, few small pores, stiff	PID = 2.0
5	2.0	27			1		Slight discoloration to greenish-gray, and dark brown. Hydrocarbon odor	PID = 0.0 PID = 59 cuttings
10	2.0	19			2		Mottled white	PID = 135 PID = 72.0
							▽ 2 Hrs. AD	
15	2.0	27			3	CL	SILTY CLAY: Grey-black mottled white and dark brown, wet, few small pores, no hydrocarbon odor	PID = 0.0 cuttings PID = 0.0
							▽ ATD	
20	1 3/8"	10			4		Grades to light brown mottled light gray	
							Grades with sand	
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

- (1) SAMPLER INSIDE DIAM.
- (2) 140lb HAMMER - 30 INCH DROP.
- (P) HYDRAULICALLY PUSHED



DATE: 5/17/90
 LOGGED BY: KAO
 ELEVATION: +349.54 T.O.C.
 WATER LEVEL: +340.06 (6/6/90)
 EQUIPMENT: Mobile B-53, 8" Hollow Stem Auger

LOG DESIGNATION MW-2 (continued)

JOB: P90103
 FIGURE: 4

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS / FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
30	1 3/8"	10			5	CL	SANDY CLAY: Light brown mottled light gray, wet, few small pores, stiff Grades with some pea gravel.	
	1 3/8"	18			6		Stiff, no pores.	Boring terminated at 30 feet. Monitoring Well installed having 15 feet of solid over 15 feet of slotted casing. 13 feet of cement surface seal

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

- (1) SAMPLER INSIDE DIAM.
- (2) 140lb HAMMER - 30 INCH DROP.
- (P) HYDRAULICALLY PUSHED

BSK
 & Associates

DATE: 5/16/90
 LOGGED BY: KAO
 ELEVATION: +349.60 T.O.C.
 WATER LEVEL: +339.78 (6/6/90)
 EQUIPMENT: Mobile B-53, 8" Hollow Stem Auger

LOG DESIGNATION MW-3

JOB: P90103
 FIGURE: 5

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS / FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
5	2.0	23			1	PVT	3-1/2 to 4" Asphaltic Concrete, 8" Aggregate Base	PID = 0.0
						CL ML	SILTY CLAY/CLAYEY SILT: Brown, moist, no pores, stiff	
10	2.0				2	CH	SILTY CLAY: Dark brown to black, mottled white, moist, few small pores, stiff	PID = 0.0
						CL	SANDY CLAY: Light brown, moist, no pores, stiff Strong hydrocarbon odor.	PID = 2.8 in auger PID = 164
15	2.0	37			3	CH	SILTY CLAY: Dark brown, mottled green and light brown, damp, some small pores, stiff $\frac{\nabla}{3 \text{ hrs. AD}}$ $\frac{\nabla}{\text{ATD}}$	PID = 43 cuttings PID = 3.0 sample
							Grades less stiff. Wet	
20	1 3/8"	9			4		Grades dark brown mottled white	
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

- (1) SAMPLER INSIDE DIAM.
- (2) 140lb HAMMER - 30 INCH DROP.
- (P) HYDRAULICALLY PUSHED

BSK
 & Associates

DATE: 5/16/90
 LOGGED BY: KAO
 ELEVATION: +349.60 T.O.C.
 WATER LEVEL: +339.78 (6/6/90)
 EQUIPMENT: Mobile B-53, 8" Hollow Stem Auger

LOG DESIGNATION MW-3 (continued)

JOB: P90103
 FIGURE: 5

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS / FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
	1 3/8 18"	18			5	CH	SILTY CLAY: Dark brown mottled green and light brown, some small pores, stiff	
						CL	SANDY CLAY: Light brown mottled gray, moist, no pores, stiff	
30	1 3/8 18"	17			6			Boring terminated at 30 feet
								Monitoring Well installed having 14 ft. solid over 15 ft. slotted casing
								13 ft. of cement surface seal

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

- (1) SAMPLER INSIDE DIAM.
- (2) 140lb HAMMER - 30 INCH DROP.
- (P) HYDRAULICALLY PUSHED

BSK
 & Associates

DATE: 5/16/90
 LOGGED BY: KAO
 ELEVATION:
 WATER LEVEL: Not encountered.
 EQUIPMENT: Mobile B-53, 8" Hollow Stem Auger

LOG DESIGNATION SB-1

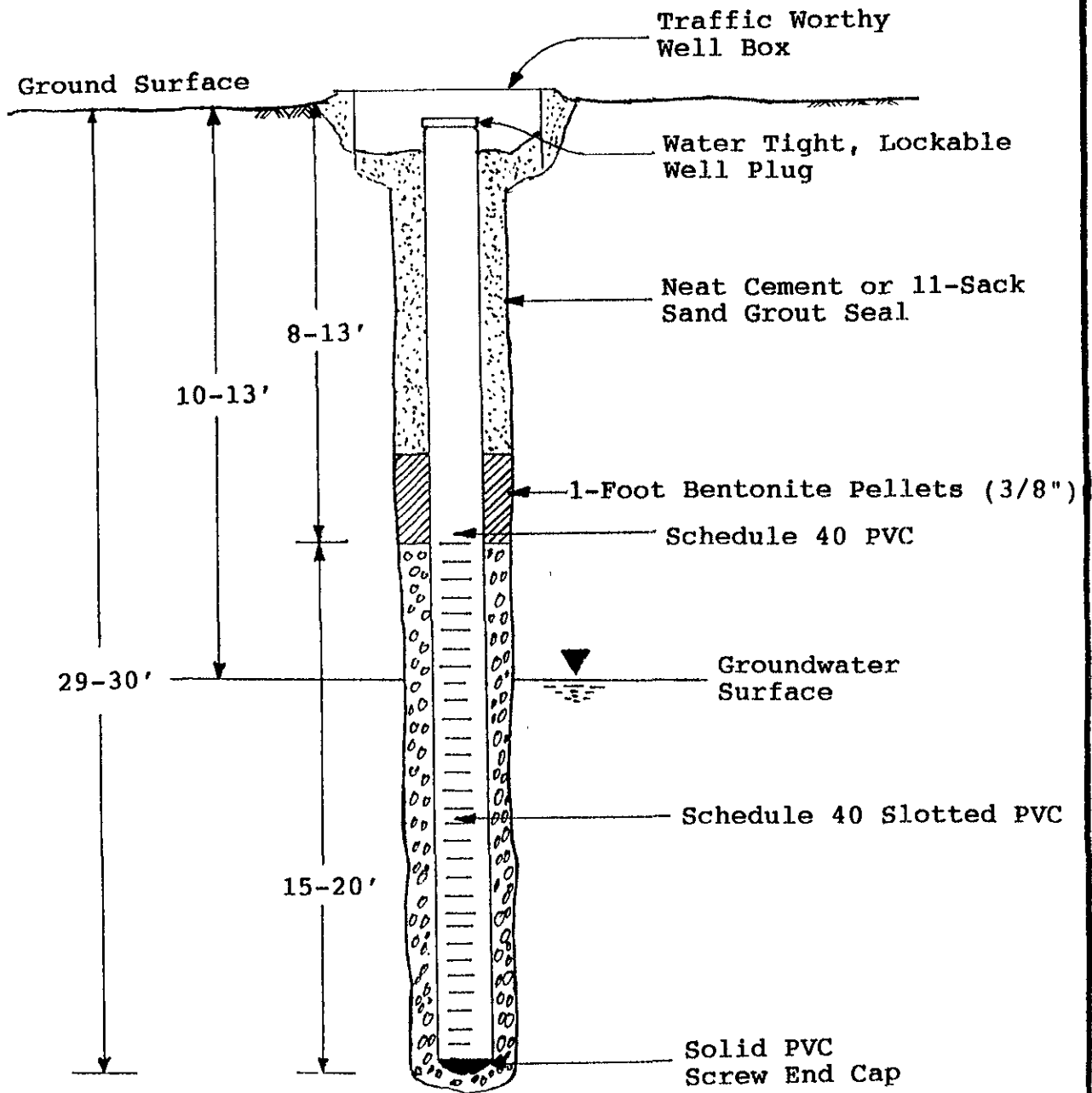
JOB: P90103
 FIGURE: 6

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS / FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
						PMT	3" Asphaltic Concrete, 8" Aggregate Base	
						CH	SILTY CLAY: Dark brown, moist to damp, no pores, firm to stiff	PID = 0.0
5	2.0	20			1			PID = 0.0 cuttings
						CH	SILTY CLAY: (Discolored) green-gray, no pores, damp, firm to stiff	PID = 0.0
10	2.0	16			2		Grades darker gray	PID = 73.0
							Very strong hydrocarbon odor	PID = 359
	2.0	19			3		Some small pores.	PID = 37
15								Boring terminated at 13 feet.
								Backfilled with neat cement
20								
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
 (2) 140lb HAMMER - 30 INCH DROP.
 (P) HYDRAULICALLY PUSHED

BSK
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GROUNDWATER MONITORING WELL PROFILE

(Not to Scale)

Job No.: P90103

May, 1990

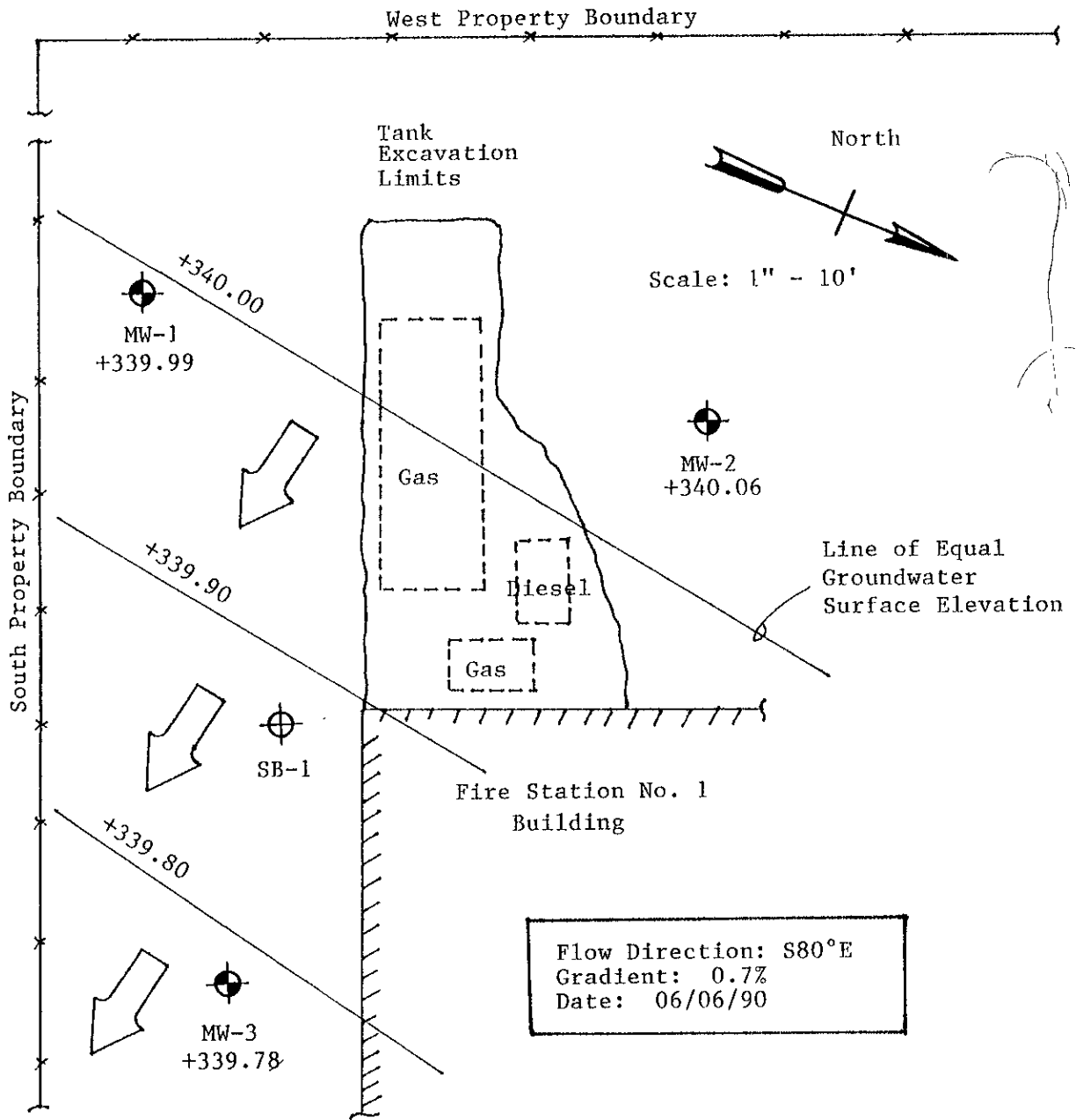
Figure: 7

BSK
& Associates

CHECKED BY _____

DATE _____

BY _____



GROUNDWATER FLOW DIRECTION AND GRADIENT

- Approximate Former Tank Location and Content

- Groundwater Flow Direction

- Approximate Location, Elevation and Designation of Groundwater Monitoring Well

- Approximate Location and Designation of Exploratory Soil Boring

Job No. P90103
 June 1990
 FIGURE: 8

BSK
 & Associates

INDIVIDUAL WELL FIELD LOG

WELL DEVELOPMENT: _____ Date: _____
 SAMPLE COLLECTION: X Date: 5/24/90

PROJECT NAME & LOCATION: Dublin F.S. - Donohue

PERSONNEL: TWB
 WEATHER: Clear - Warm

WELL INFORMATION:

Well No.: MW-1
 Depth to water: 10.01' From T.O.C. Date Purged: 5/24/90
 Well Depth: 30 Feet Purge Method: PVC Hand Pump
 Water Volume: 3.2 Gallon Purge Begin: 10:56
 Reference Point Elevation: +350 End Purge: 11:14
 Groundwater Elevation: +339.99
 Measurement Technique: Electric Sounding Tape

IMMISCIBLE LAYERS:

TOP: None BOTTOM: None
 Detection Method: Visual, Olfactory
 Collection Method: Clear PVC Point Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gal)	ELECTRICAL CONDUCTIVITY (Ec/Range)	pH	TEMPERATURE (° F)	COMMENTS
10:56	5	2540	7.51	75.3	
11:01	10	6920	6.90	74.9	
11:03	15	2470	6.75	74.6	
11:08	20	2930	6.68	73.7	
11:11	25	2930	6.51	73.8	
11:14	30	2920	6.53	73.8	

SAMPLE COLLECTION DATA:

Sampling Equipment and Procedures: Teflon Bailer

TIME	TYPE OF TEST	AMOUNT/CONTAINER USED	DEPTH
13:03	TVH + BTXE	2 40 ML. Glass Vials W/HCL	12'

Field Observations: No petroleum odors were noted during purge or sample

INDIVIDUAL WELL FIELD LOG

WELL DEVELOPMENT: _____ Date: _____
 SAMPLE COLLECTION: X Date: 5/24/90

PROJECT NAME & LOCATION: MFI Install - Dublin F.S. and Donohue

PERSONNEL: TWB
 WEATHER: Clear/Warm

WELL INFORMATION:

Well No.: MW-2
 Depth to water: 9.48 From T.O.C. Date Purged: 5/24/90
 Well Depth: 30 Feet Purge Method: PVC Hand Pump
 Water Volume: 3.3 Gallon Purge Begin: 13:49
 Reference Point Elevation: +349.54 End Purge: 13:59
 Groundwater Elevation: +340.06
 Measurement Technique: Electric Sounding Tape

IMMISCIBLE LAYERS:

TOP: None BOTTOM: None
 Detection Method: Visual, Olfactory
 Collection Method: Clear PVC Point Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gal)	ELECTRICAL CONDUCTIVITY (Ec/Range)	pH	TEMPERATURE (° F)	COMMENTS
13:49	10	2530	6.72	73.2	
13:52	15	2540	6.60	73.2	
13:55	20	2550	6.51	72.7	
13:59	25	2530	6.45	72.5	

SAMPLE COLLECTION DATA:

Sampling Equipment and Procedures: Teflon Bailer

TIME	TYPE OF TEST	AMOUNT/CONTAINER USED	DEPTH
14:12	TVH + BTXE	2 40 ML. Glass Vials W/HCL	12'

Field Observations: No petroleum odors were noted during purge or sampling.

INDIVIDUAL WELL FIELD LOG

WELL DEVELOPMENT: _____ Date: _____
 SAMPLE COLLECTION: X Date: 5/24/90

PROJECT NAME & LOCATION: Dublin Fire Station on Donohue

PERSONNEL: TWB
 WEATHER: Clear/Warm

WELL INFORMATION:

Well No.: MW-3
 Depth to water: 9.82 From T.O.C. Date Purged: 5/24/90
 Well Depth: 30 Feet Purge Method: PVC Hand Pump
 Water Volume: 3.2 Gallon Purge Begin: 12:15
 Reference Point Elevation: +349.60 End Purge: 12:26
 Groundwater Elevation: +339.78
 Measurement Technique: Electric Sounding Tape

IMMISCIBLE LAYERS:

TOP: None BOTTOM: None
 Detection Method: Visual, Olfactory
 Collection Method: Clear PVC Point Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gal)	ELECTRICAL CONDUCTIVITY (Ec/Range)	pH	TEMPERATURE (° F)	COMMENTS
12:15	10	2530	6.88	75.4	
12:18	15	2520	6.60	74.3	
12:22	20	2490	6.53	73.8	
12:26	25	2520	6.46	73.3	

SAMPLE COLLECTION DATA:

Sampling Equipment and Procedures: Teflon Bailer, Sampled at Shallow Depth

TIME	TYPE OF TEST	AMOUNT/CONTAINER USED	DEPTH
12:39	TVH + BTXE	2 40 ML. VOA W/HCL	12'

Field Observations: No petroleum odors were noted during purge or sampling

APPENDIX "A"

LABORATORY CHEMICAL TEST DATA SHEETS &
PROJECT CHAIN OF CUSTODY RECORDS

BSK Analytical Laboratories

FIGURE: A-1

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485 7427

BSK Pleasanton
P90103

Lab No. Ch901611-4

Report Date 5/30/90

Sample Type Soil Date Sampled 5/16/90

Sample Description 1138 hrs. Date Received 5/18/90

MW-1 at 5-1/2' Date of Analyses 5/21/90

Soil Analyses for BTXE and TVH

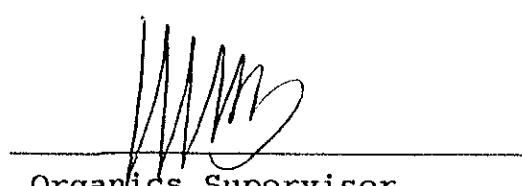
Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	ND	0.02
Toluene	ND	0.02
Ethylbenzene	ND	0.02
Total Xylene Isomers	ND	0.02
Total Volatile Hydrocarbons	ND	10.

Method: BTXE-EPA 8020 TVH-EPA 8015M

ND-None Detected BDL-Below Detection Limit

DLR-Detection Limit For the Purposes of Reporting


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Organics Supervisor

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FIGURE: A-2

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-7427

BSK Pleasanton
P90103

Lab No. Ch901611-5

Report Date 5/30/90

Sample Type Soil Date Sampled 5/16/90

Sample Description 1150 hrs. Date Received 5/18/90

MW-1 at 10-1/2' Date of Analyses 5/21/90

Soil Analyses for BTXE and TVH

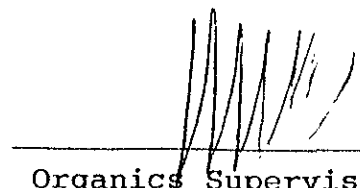
Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	0.12	0.02
Toluene	0.51	0.02
Ethylbenzene	0.23	0.02
Total Xylene Isomers	0.37	0.02
Total Volatile Hydrocarbons	73	10.

Method: BTXE-EPA 8020 TVH-EPA 8015H

ND-None Detected BDL-Below Detection Limit

DLR-Detection Limit For the Purposes of Reporting


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FIGURE: A-3

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-7427

BSK Pleasanton
P90103

Lab No. Ch901611-6

Report Date 5/30/90

Sample Type Soil Date Sampled 5/16/90

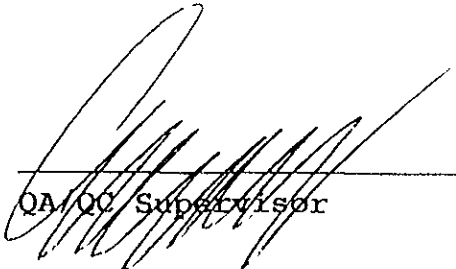
Sample Description 1208 hrs. Date Received 5/18/90

MW-1 at 15-1/2' Date of Analyses 5/21/90

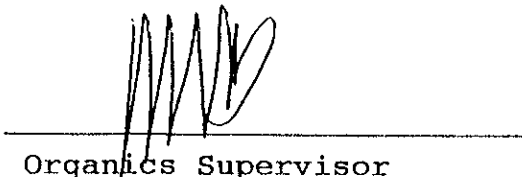
Soil Analyses for BTXE and TVH

Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	ND	0.02
Toluene	ND	0.02
Ethylbenzene	ND	0.02
Total Xylene Isomers	ND	0.02
Total Volatile Hydrocarbons	ND	10.

Method: BTXE-EPA 8020 TVH-EPA 8015M
 ND-None Detected BDL-Below Detection Limit
 DLR-Detection Limit For the Purposes of Reporting



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FIGURE: A-4

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Lab No. Ch901611-7

Report Date 5/30/90

Sample Type Soil Date Sampled 5/17/90

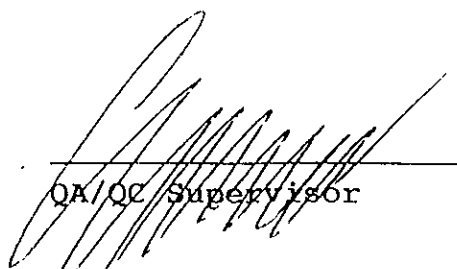
Sample Description 0915 hrs. Date Received 5/18/90

MW-2 at 5-1/2' Date of Analyses 5/21/90

Soil Analyses for BTXE and TVH

Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	ND	0.02
Toluene	ND	0.02
Ethylbenzene	ND	0.02
Total Xylene Isomers	ND	0.02
Total Volatile Hydrocarbons	ND	10.

Method: BTXE-EPA 8020 TVH-EPA 8015M
ND-None Detected BDL-Below Detection Limit
DLR-Detection Limit For the Purposes of Reporting



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FIGURE: A-5

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-7427

BSK Pleasanton
P90103

Lab No. Ch901611-8

Report Date 5/30/90

Sample Type Soil Date Sampled 5/17/90

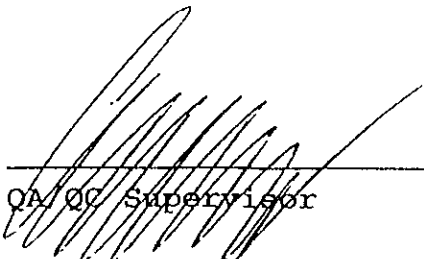
Sample Description 0923 hrs. Date Received 5/18/90

MW-2 at 10-1/2' Date of Analyses 5/21/90

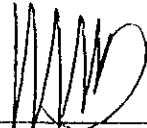
Soil Analyses for BTXE and TVH

Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	1.2	0.02
Toluene	0.85	0.02
Ethylbenzene	2.8	0.02
Total Xylene Isomers	0.45	0.02
Total Volatile Hydrocarbons	170	10.

Method: BTXE-EPA 8020 TVH-EPA 8015M
 ND-None Detected BDL-Below Detection Limit
 DLR-Detection Limit For the Purposes of Reporting



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FIGURE: A-6

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-7427

BSK Pleasanton
P90103

Lab No. Ch901611-9

Report Date 5/30/90

Sample Type Soil Date Sampled 5/17/90

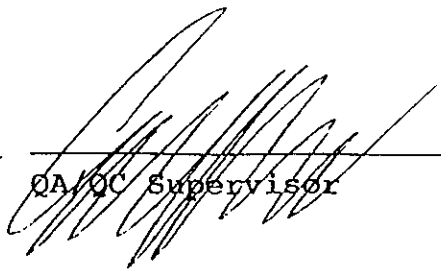
Sample Description 0937 hrs. Date Received 5/18/90

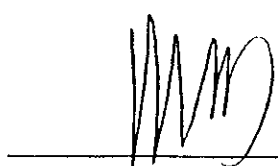
MW-2 at 15-1/2' Date of Analyses 5/21/90

Soil Analyses for BTXE and TVH

Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	ND	0.02
Toluene	ND	0.02
Ethylbenzene	ND	0.02
Total Xylene Isomers	ND	0.02
Total Volatile Hydrocarbons	ND	10.

Method: BTXE-EPA 8020 TVH-EPA 8015M
ND-None Detected BDL-Below Detection Limit
DLR-Detection Limit For the Purposes of Reporting


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BSK Pleasanton
P90103

Lab No. Ch901611-10

Report Date 5/30/90

Sample Type Soil Date Sampled 5/16/90

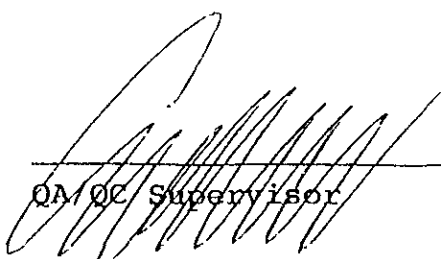
Sample Description 1015 hrs. Date Received 5/18/90

MW-3 at 5.5' Date of Analyses 5/22/90

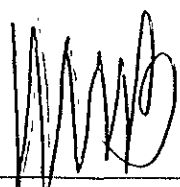
Soil Analyses for BTXE and TVH

Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	ND	0.02
Toluene	ND	0.02
Ethylbenzene	ND	0.02
Total Xylene Isomers	ND	0.02
Total Volatile Hydrocarbons	ND	10.

Method: BTXE-EPA 8020 TVH-EPA 8015M
 ND-None Detected BDL-Below Detection Limit
 DLR-Detection Limit For the Purposes of Reporting



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Lab No. Ch901611-11

Report Date 5/30/90

Sample Type Soil Date Sampled 5/16/90

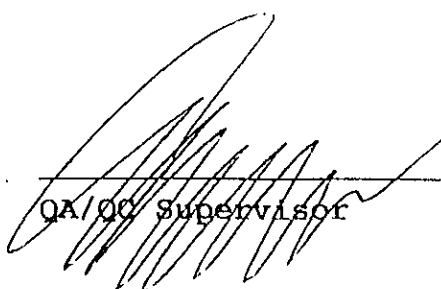
Sample Description 1022 hrs. Date Received 5/18/90

MW-3 at 11' Date of Analyses 5/22/90

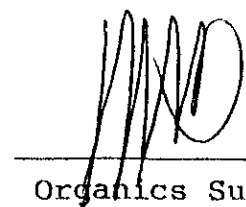
Soil Analyses for BTXE and TVH

Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	0.92	0.02
Toluene	1.2	0.02
Ethylbenzene	1.8	0.02
Total Xylene Isomers	0.63	0.02
Total Volatile Hydrocarbons	240	10.

Method: BTXE-EPA 8020 TVH-EPA 8015M
 ND-None Detected BDL-Below Detection Limit
 DLR-Detection Limit For the Purposes of Reporting



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FIGURE: A-9

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-7427

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P90103

Lab No. Ch901611-12

Report Date 5/30/90

Sample Type Soil Date Sampled 5/16/90

Sample Description 1043 hrs. Date Received 5/18/90

MW-3 at 15.5' Date of Analyses 5/22/90

Soil Analyses for BTXE and TVH

Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	ND	0.02
Toluene	ND	0.02
Ethylbenzene	ND	0.02
Total Xylene Isomers	ND	0.02
Total Volatile Hydrocarbons	ND	10.

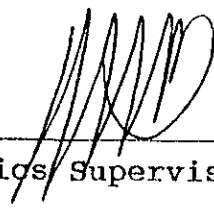
Method: BTXE-EPA 8020 TVH-EPA 8015M

ND-None Detected BDL-Below Detection Limit

DLR-Detection Limit For the Purposes of Reporting



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FIGURE: A-10

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P90103

Lab No. Ch901611-1

Report Date 5/30/90

Sample Type Soil Date Sampled 5/16/90

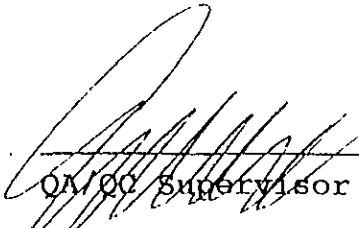
Sample Description 0912 hrs. Date Received 5/18/90

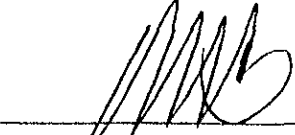
SB-1 at 5-1/2' Date of Analyses 5/21/90

Soil Analyses for BTXE and TVH

Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	ND	0.02
Toluene	ND	0.02
Ethylbenzene	ND	0.02
Total Xylene Isomers	ND	0.02
Total Volatile Hydrocarbons	ND	10.

Method: BTXE-EPA 8020 TVH-EPA 8015M
 ND-None Detected BDL-Below Detection Limit
 DLR-Detection Limit For the Purposes of Reporting


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 Organics Supervisor

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FIGURE: A-11

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BSK Pleasanton
P90103

Lab No. Ch901611-2

Report Date 5/30/90

Sample Type Soil Date Sampled 5/16/90

Sample Description 0922 hrs. Date Received 5/18/90

SB-1 at 10' Date of Analyses 5/21/90

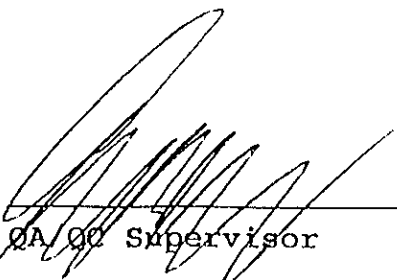
Soil Analyses for BTXE and TVH

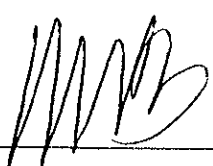
Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	1.2	0.02
Toluene	1.2	0.02
Ethylbenzene	3.3	0.02
Total Xylene Isomers	2.9	0.02
Total Volatile Hydrocarbons	260	10.

Method: BTXR-EPA 8020 TVH-EPA 8015M

ND-None Detected BDL-Below Detection Limit

DLR-Detection Limit For the Purposes of Reporting


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Organics Supervisor

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FIGURE: A-12

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P90103

Lab No. Ch901611-2

Report Date 5/30/90

Sample Type Soil Date Sampled 5/16/90

Sample Description 0922 hrs. Date Received 5/18/90

SB-1 at 10' Date of Analyses 5/22/90

Soil Analyses for TPH

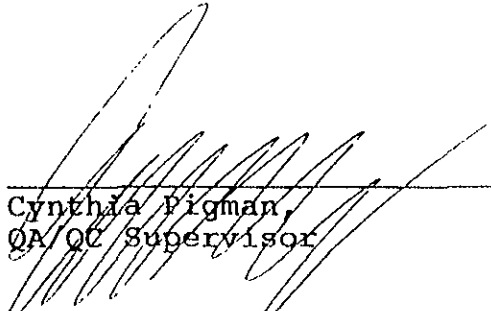
Compound	Results (mg/kg)	Detection Limit (DLR)
Total Petroleum Hydrocarbons	470	10

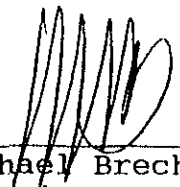
Method: TPH DHS GC/FID

ND-None Detected BDL-Below Detection Limit

DLR-Detection Limit For the Purposes of Reporting

*This sample contains lower molecular weight hydrocarbons.


Cynthia Pigman,
QA/QC Supervisor


Michael Brechmann,
Organics Supervisor

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BSK Pleasanton
P90103

Lab No. Ch901611-3

Report Date 5/30/90

Sample Type Soil Date Sampled 5/16/90

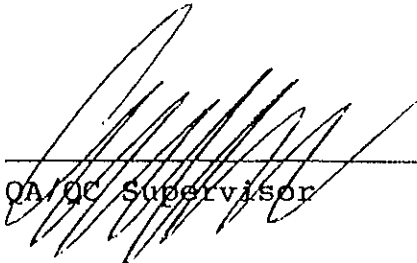
Sample Description 0935 hrs. Date Received 5/18/90

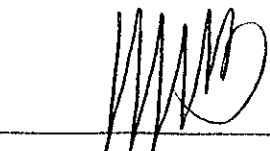
SB-1 at 12-1/2' Date of Analyses 5/21/90

Soil Analyses for BTXE and TVH

Compound	Results (mg/kg)	Detection Limit (DLR)
Benzene	0.49	0.02
Toluene	0.24	0.02
Ethylbenzene	0.96	0.02
Total Xylene Isomers	0.12	0.02
Total Volatile Hydrocarbons	66	10.

Method: BTXE-EPA 8020 TVH-EPA 8015M
 ND-None Detected BDL-Below Detection Limit
 DLR-Detection Limit For the Purposes of Reporting


 QA/QC Supervisor


 Organics Supervisor

BSK Analytical Laboratories

FIGURE: A-14

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-7427

BSK Pleasanton
P90103

Lab No. Ch901697-2

Report Date 6/1/90

Sample Type Water Date Sampled 5/24/90

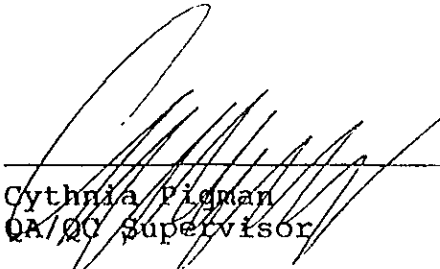
Sample Description 1303 hrs. Date Received 5/25/90

MW-1, No. 1 Date of Analyses 5/30/90


Water Analyses for BTXE and TVH

Compound	Results (ug/l)	Detection Limit (DLR)
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
Total Xylene Isomers	ND	0.5
Total Volatile Hydrocarbons	ND	50

Method: BTXE-EPA 8020 TVH-EPA 8015M
ND-None Detected BDL-Below Detection Limit
DLR-Detection Limit For the Purposes of Reporting



Cythnia Pigman
QA/QC Supervisor



Michael Brechman
Organics Supervisor

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-7427

BSK Pleasanton
P90103

Lab No. Ch901697-3

Report Date 6/1/90

Sample Type Water Date Sampled 5/24/90

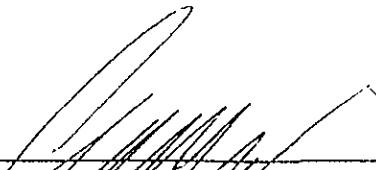
Sample Description 1412 hrs. Date Received 5/25/90

MW-2, No. 1 Date of Analyses 5/30/90

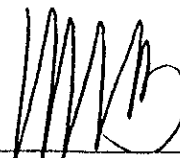
Water Analyses for BTXE and TVH

Compound	Results (ug/l)	Detection Limit (DLR)
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
Total Xylene Isomers	ND	0.5
Total Volatile Hydrocarbons	ND	50

Method: BTXE-EPA 8020 TVH-EPA 8015M
 ND-None Detected BDL-Below Detection Limit
 DLR-Detection Limit For the Purposes of Reporting



 Cynthia Pigan
 QA/QC Supervisor



 Michael Brechman
 Organics Supervisor

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-7427

BSK Pleasanton
P90103

Lab No. Ch901697-1

Report Date 6/1/90

Sample Type Water Date Sampled 5/24/90

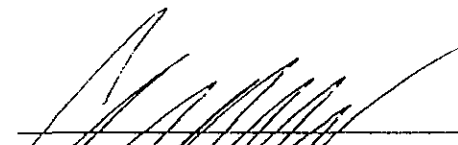
Sample Description 1239 hrs. Date Received 5/25/90


MW-3, No. 1 Date of Analyses 5/30/90

Water Analyses for BTXE and TVH

Compound	Results (ug/l)	Detection Limit (DLR)
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
Total Xylene Isomers	ND	0.5
Total Volatile Hydrocarbons	ND	50

Method: BTXE-EPA 8020 TVH-EPA 8015M
 ND-None Detected BDL-Below Detection Limit
 DLR-Detection Limit For the Purposes of Reporting


 Cythnia Pignatelli
 QA/QC Supervisor


 Michael Brechman
 Organics Supervisor

Client Name BSK-Pleasanton			Project or PO.# 90103			Lab Use Only in this section Analysis required TVH - BTX/E TPH Hazardous sample Special handling required 5/25/90							
Address 5729 F Sonoma Drive			Phone # 415 462 4000										
City, State, Zip Pleasanton, CA 94566			Report, attention TIM BERGER										
Date sampled	Time sampled	Type (See key below)	Sampled by	Sample description	Number of containers	Lab Sample number	Sample Seals (See key below)	Remarks					
5/16/90	0912	SO	Keith O'Connell	SB-1 at 5 1/2'	1	-1	P	X					
"	0922	SO		SB-1 at 10'	1	-2		X X					
"	0935	SO		SB-1 at 12 1/2'	1	-3		X					
5/16/90	1138	SO		MW-1 at 5 1/2'	1	-4		X					
"	1150	SO		MW-1 at 10 1/2'	1	-5		X					
"	1208	SO		MW-1 at 15 1/2'	1	-6		X					
5/17/90	0915	SO		MW-2 at 5 1/2'	1	-7		X					
"	0923	SO		MW-2 at 10 1/2'	1	-8		X					
"	0937	SO		MW-2 at 15 1/2'	1	-9	V	X					

IMPORTANT NOTICE: No samples will be analyzed without an authorized signature in this section.

I am hereby requesting BSK's Normal Chain-of-Custody Procedures for the above samples. I understand that these procedures are generally consistent with those outlined in the U.S. E.P.A. SW 846 and that there is no extra charge for this service.

[Signature]
Authorized Signature

I am hereby requesting BSK's Formal Chain-of-Custody Procedures for the above samples. I understand that these procedures are generally consistent with those outlined in U.S. EPA Contract Laboratory Program Statement of Work, Section F, and that there is a charge of \$50.00 per work order or \$5.00 a bottle, whichever is greater.

By: _____
Authorized Signature

Signature	Print Name	Company	Date	Time
<i>[Signature]</i>	Keith O'Connell	BSK - Pleasanton	5/17/90	0700
<i>[Signature]</i>	Kathleen Sorcnson	BSK	5/18/90	at 160hrs
Relinquished by				
Received by				
Relinquished by				
Received by				

BSK & Associates Chemical Laboratories

1414 Stanislaus Street Fresno, California 93706
Telephone (209) 485-8310 • Fax (209) 485-7427

KEY: Type: AQ-Aqueous SL-Sludge SO-Soil PE-Petroleum OT-Other
Seals: P-Present A-Absent B-Broken
DISTRIBUTION: WHITE, CANARY - LABORATORY PINK - ORIGINATOR

Note:
Samples are discarded 14 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client expense.

FIGURE: A-17

BE

Client Name BSK - Pleasanton			Project or P.O.# P90103			Lab Use Only in this section Analysis required TVH + BTXE Hazardous sample Special handling required 5/16/90						
Address 5729 F Sonoma Drive			Phone # 415 462 4000									
City, State, Zip Pleasanton, CA 94566			Report, attention Tim Berger									
Date sampled	Time sampled	Type (See key below)	Sampled by	Number of containers	Lab Sample number	Sample Seals (See key below)	Remarks					
5/16/90	1015	SO	MW-3 at 5.5'	1	-10	P	X					
"	1022	SO	MW-3 at 11'	1	-11	↓	X					
"	1043	SO	MW-3 at 15.5'	1	-12	↓	X					

IMPORTANT NOTICE: No samples will be analyzed without an authorized signature in this section.

I am hereby requesting BSK's Normal Chain-of-Custody Procedures for the above samples. I understand that these procedures are generally consistent with those outlined in the U.S. E.P.A. SW 846 and that there is no extra charge for this service.

By: Tim Berger
Authorized Signature

I am hereby requesting BSK's Formal Chain-of-Custody Procedures for the above samples. I understand that these procedures are generally consistent with those outlined in U.S. EPA Contract Laboratory Program Statement of Work, Section F, and that there is a charge of \$50.00 per work order or \$5.00 a bottle, whichever is greater.

By: _____
Authorized Signature

Signature	Print Name	Company	Date	Time
Relinquished by <u>Tim Berger</u>	<u>Tim Berger</u>	<u>BSK - Pleasanton</u>	<u>5/17/90</u>	<u>1700</u>
Received by <u>Kathleen Sorenson</u>	<u>Kathleen Sorenson</u>	<u>BSK</u>	<u>5/18/90</u>	<u>1610</u>
Relinquished by				
Received by				
Relinquished by				
Received by				

Client Name <i>BSK - Pleasanton</i>			Project or P.O.# <i>F90103</i>			Lab Use Only in this section <i>LAB BTAE FTVH</i>		Analysis required			
Address <i>5729 F Sonoma Drive</i>			Phone # <i>415 462 4000</i>					<div style="text-align: right; font-size: 2em; font-weight: bold;">6/4/90</div>			
City, State, Zip <i>Pleasanton, CA 94566</i>		Report, attention <i>Tim Berger</i>									
Date sampled	Time sampled	Type (See key below)	Sampled by	Number of containers	Lab Sample number	Sample Seals (See key below)	Hazardous sample Special handling required				Remarks
<i>5/24/90</i>	<i>12:39</i>	<i>AQ</i>	<i>Tim Berger</i>	<i>2</i>	<i>-1</i>	<i>P</i>	<div style="font-size: 2em; font-weight: bold;">EXPEDITE</div> <div style="font-size: 2em; font-weight: bold;">6/4</div>				
<i>"</i>	<i>13:03</i>	<i>AQ</i>	<i>MW-1, No. 1</i>	<i>2</i>	<i>-2</i>	<i>↓</i>					
<i>"</i>	<i>14:12</i>	<i>AQ</i>	<i>MW-2, No. 1</i>	<i>2</i>	<i>-3</i>	<i>↓</i>					

IMPORTANT NOTICE: No samples will be analyzed without an authorized signature in this section.

I am hereby requesting BSK's Normal Chain-of-Custody Procedures for the above samples. I understand that these procedures are generally consistent with those outlined in the U.S. E.P.A. SW 846 and that there is no extra charge for this service.

By: *Tim Berger*
Authorized Signature

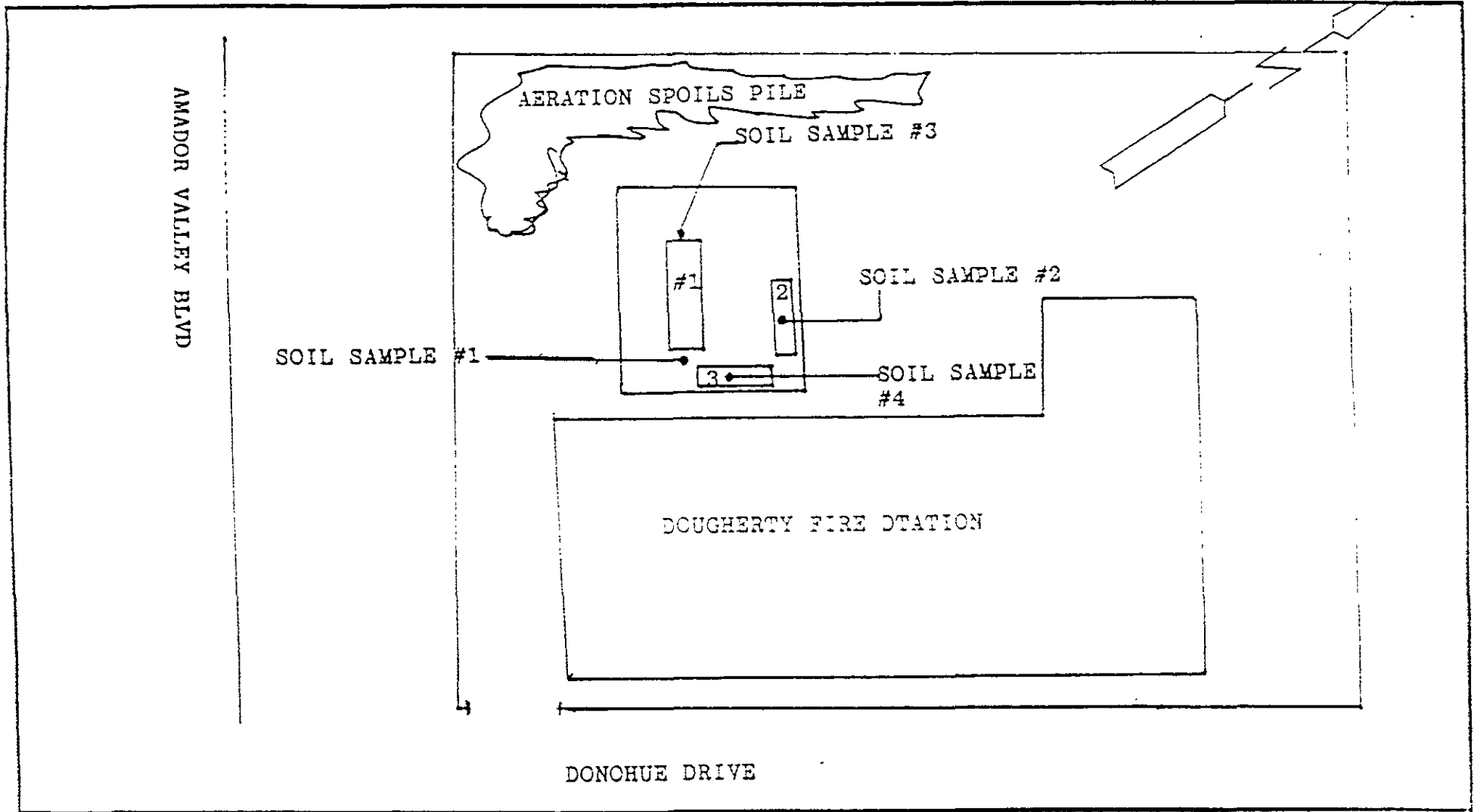
I am hereby requesting BSK's Formal Chain-of-Custody Procedures for the above samples. I understand that these procedures are generally consistent with those outlined in U.S. EPA Contract Laboratory Program Statement of Work, Section F, and that there is a charge of \$50.00 per work order or \$5.00 a bottle, whichever is greater.

By: _____
Authorized Signature

Signature	Print Name	Company	Date	Time
<i>Tim Berger</i>	<i>Tim Berger</i>	<i>BSK - Pleasanton</i>	<i>5/24/90</i>	<i>16:00</i>
<i>[Signature]</i>	<i>[Signature]</i>	<i>LAB</i>	<i>5/25</i>	<i>1300</i>
Relinquished by				
Received by				
Relinquished by				
Received by				
Relinquished by				
Received by				

APPENDIX "B"

HAGEMAN SCHANK, INC. TANK REMOVAL REPORT



SAMPLE DEPTH	LEGEND	TANK REMOVAL - DOUGHERTY FIRE STATION #		
SAMPLE # 1 at 11'	• - SAMPLE LOCATIONS #1 4000 GASOLINE	SCALE: N/A	APPROVED BY:	DRAWN BY:
SAMPLE # 2 " 11'	#2 550 DIESEL	DATE: 11-2-89	PLAN VIEW	
SAMPLE # 3 " 11'	#3 550 GASOLINE	HAGEMAN-SCHANK, INC		
SAMPLE # 4 " 9'				

FIGURE: B-1

FIGURE: B-1

CHROMALAB, INC.

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798

Chain of Custody

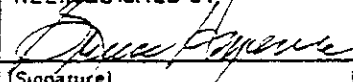
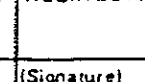
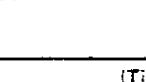
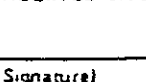
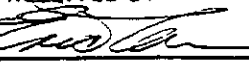
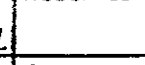
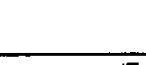

DATE _____ PAGE _____ OF _____

PROJ. MGR. BRUCE HAGEMAN
COMPANY HAGEMAN - SCHMIDT INC.
ADDRESS 2723 Crow Canyon Rd
SAN RAMON

ANALYSIS REQUEST

SAMPLERS (SIGNATURE) _____ (PHONE NO.) _____

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	TPH - Gasoline (EPA 5030)	TPH - Gasoline (5030) W/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510, 3550)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240)	BASE/NEUTRALS, ACIDS (EPA 626/627, 8270)	TOTAL OIL & GREASE (EPA 5030A-E)	PESTICIDES/PCB (EPA 608, 8080)	PHENOLS (EPA 606, 8060)	METALS: Cd, Cr, Pb, Zn	CAN METALS (10) W/CR VI	PRIORITY POLLUTANT METALS (15)
DFD SS #1	4/2	12:30	SOIL		X	X	X	X	X	X	X	X	X	X			
DFD SS #2	4/2	12:45	SOIL		X	X	X	X	X	X	X	X	X	X			
DFD SS #3	4/2	1:00	SOIL		X	X	X	X	X	X	X	X	X	X			
DFD SS #4	4/2	1:15	SOIL		X	X	X	X	X	X	X	X	X	X			

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY
PROJECT:	TOTAL NO. OF CONTAINERS	4	 (Signature) _____ (Time) _____ (Printed Name) _____ (Date) _____ (Company) _____	 (Signature) _____ (Time) _____ (Printed Name) _____ (Date) _____ (Company) _____	 (Signature) _____ (Time) _____ (Printed Name) _____ (Date) _____ (Company) _____	 (Signature) _____ (Time) _____ (Printed Name) _____ (Date) _____ (Company) _____
PQ NO.	CHAIN OF CUSTODY SEALS	REC'D GOOD CONDITION/COLD				
SHIPPING ID. NO.	CONFORMS TO RECORD	LAB NO.				
VIA:			RECEIVED BY 1.	RECEIVED BY 2.	RECEIVED BY (LABORATORY)	
SPECIAL INSTRUCTIONS/COMMENTS:			 (Signature) _____ (Time) _____ (Printed Name) <u>BRUCE HAGEMAN</u> (Date) <u>4/2/87</u> (Company) <u>CHROMALAB</u>	 (Signature) _____ (Time) _____ (Printed Name) _____ (Date) _____ (Company) _____	 (Signature) _____ (Time) _____ (Printed Name) _____ (Date) _____ (Company) _____	 (Signature) _____ (Time) _____ (Printed Name) _____ (Date) _____ (Company) _____

24 HOUR TURN AROUND

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste
- Drinking Water
- Waste Water
- Research and Method Development
- Consultation

November 3, 1989

ChromaLab File # 1189009

Hageman-Schank, Inc.

Attn: Bruce Hageman

Re: Four RUSH soil samples for Gasoline/BTEX and Diesel

Project Name: N/A

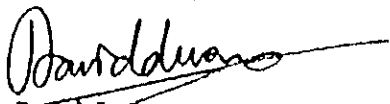
Duration of Analysis: Nov. 2-3, 1989

Results:

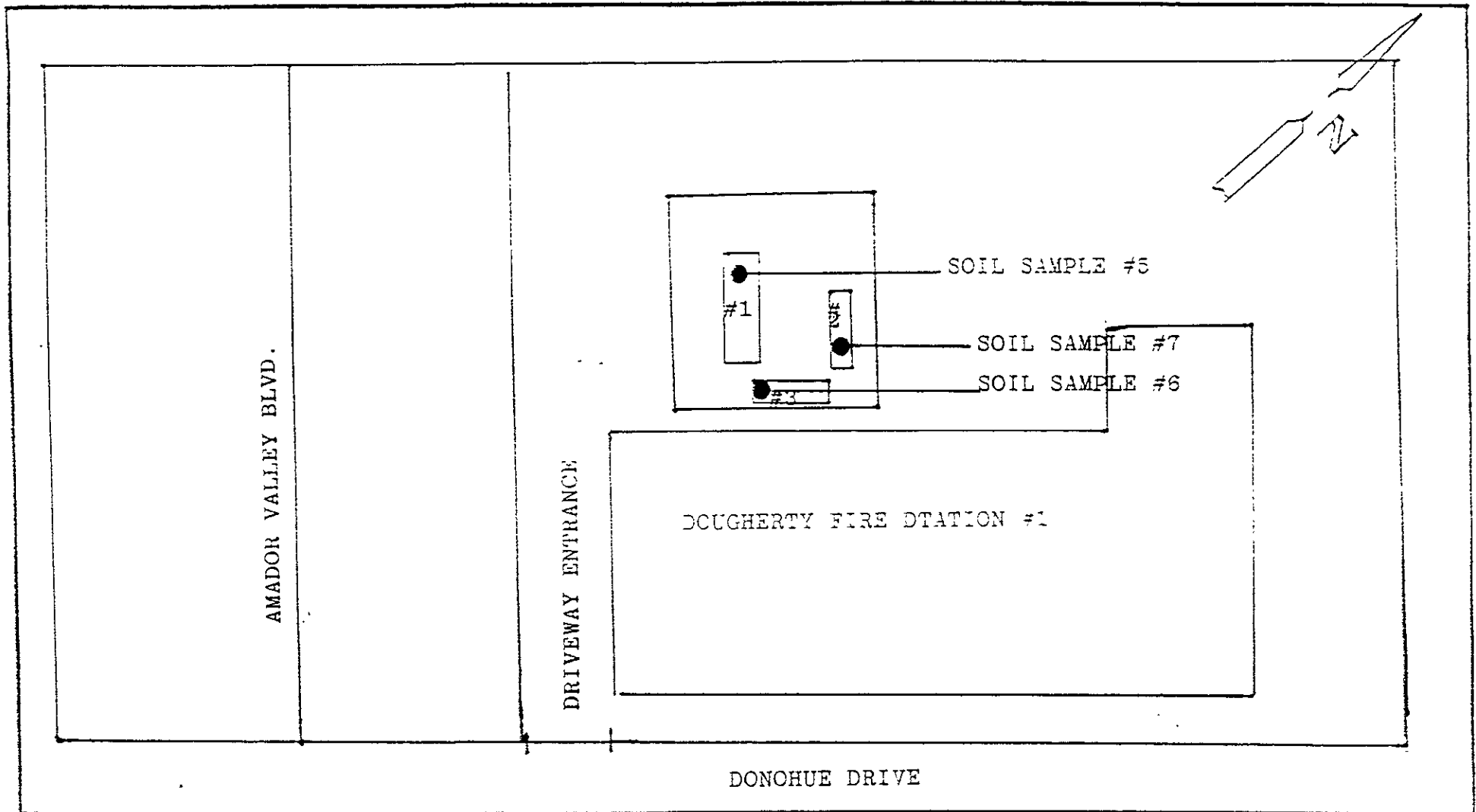
Sample No.	Gasoline (mq/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
DFD SS#1	980	2400	540	2500	2760
DFD SS#2	810	1100	290	4400	4500
DFD SS#3	130	N.D.	170	180	51
DFD SS#4	1500	2500	2800	10000	20000
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	95.9%	86.6%	87.9%	100.6%	95.1%
DETECTION LIMIT	2.5	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	MOD.8015	8020	8020	8020	8020

Sample No.	Diesel (mq/Kg)
DFD SS#2	N.D.
BLANK	N.D.
SPIKE RECOVERY	99.1%
DETECTION LIMIT	5.0
METHOD OF ANALYSIS	MOD.8015

ChromaLab, Inc.


David Duong
Senior Chemist


Eric Tam
Laboratory Director



SAMPLE DEPTH	LEGEND			
SAMPLE # 5 at 13' SAMPLE # 7 at 12.5' SAMPLE # 6 at 13'	● SAMPLE LOCATIONS #1 4000gal GASOLINE #2 550 GAL DIESEL #3 550 GAL GASOLINE	SCALE: <i>NA</i> DATE: <i>11-7-89</i>	APPROVED BY:	DRAWN BY: <i>SH</i> PLAN VIEW
		TANK REMOVAL -DOUGHTERY FIRE STATION # 1		
		HAGEMAN-SCHANK, INC		DRAWING NUMBER

FIGURE: B-5

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#238)
- Drinking Water (#955)
- Waste Water
- Consultation

November 15, 1989

ChromaLab File # 1189037

Hageman-Schank, Inc.

Attn: Bruce Hageman

RE: Three soil samples for BTEX and Gasoline analysis


Project Name: DOUGHAERTY FIRE DEPARTMENT


Duration of Analysis: November 10-14, 1989

RESULTS:

Sample No.	Gasoline (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
DFD #5	N.D.	8.1	N.D.	N.D.	N.D.
DFD #6	560	2200	1700	3300	6500
DFD #7	220	280	930	1200	230
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	94.9%	82.8%	85.7%	96.3%	104.8%
DETECTION LIMIT	2.5	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	MOD.8015	8020	8020	8020	8020

ChromaLab, Inc.


David Duong
Senior Chemist


Eric Tam
Laboratory Director



**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**

219 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
415/771-6000

REGULATION 8, RULE 40
Aeration of Contaminated Soil and
Removal of Underground Storage Tanks

NOTIFICATION FORM

- Removal or Replacement of Tanks
 Excavation of Contaminated Soil

SITE INFORMATION

SITE ADDRESS 7494 DONOHUE DRIVE
CITY, STATE, ZIP DUBLIN, CA 94568
OWNER NAME DOUGHERTY REGIONAL FIRE AUTHORITY
SPECIFIC LOCATION OF PROJECT DRIECTLY BEHIND MAIN FIRE STATION BUILDING

<p><u>TANK REMOVAL</u></p> <p>SCHEDULED STARTUP DATE _____</p> <p>VAPORS REMOVED BY:</p> <p>[] WATER WASH</p> <p>[] VAPOR FREEING (CO²)</p> <p>[] VENTILATION</p>	<p><u>CONTAMINATED SOIL EXCAVATION</u></p> <p>SCHEDULED STARTUP DATE <u>11/8/89</u></p> <p>STOCKPILES WILL BE COVERED? YES <u>X</u> NO _____</p> <p>ALTERNATIVE METHOD OF AERATION (DESCRIBE BELOW): <u>AERATION OF APPROX 40 CUBIC YARDS OF</u> <u>(MAY REQUIRE PERMIT)</u> <u>SOIL FROM GASOLINE TANK EXCAVATION, AVG.</u> <u>CONTAMINATION LEVEL LESS THAN 1000 ppm</u></p>
---	--

CONTRACTOR INFORMATION

NAME _____ CONTACT _____
ADDRESS _____ PHONE () _____
CITY, STATE, ZIP _____

CONSULTANT INFORMATION
(IF APPLICABLE)

NAME HAGEMAN-SCHANK, INC. CONTACT BRUCE HAGEMAN - GARY AGUIAR
ADDRESS 2321 CROW CANYON ROAD PHONE (415) 837-2926
CITY, STATE, ZIP SAN RAMON, CA 94583

FOR OFFICE USE ONLY

DATE RECEIVED _____ BY _____ (INIT.) _____
CC: INSPECTOR NO. _____ DATE _____ BY _____ (INIT.) _____
TELEPHONE UPDATE: CALLER _____ CHANGE MADE _____
BAAQMD N # _____

HAGEMAN-SCHANK, INCORPORATED
 2723 CROW CANYON ROAD, SUITE 210
 SAN RAMON, CALIFORNIA 94583
 415/837-2926

BTX5
 TPH AS GASOLINE

NORMAL TURN AROUND

PROJECT NO.

DAUGHTERY FIRE
 STA #1
 SOIL REMEDIATION

COMPOSITE CSS #1 THRU CSS #5
 AS ONE SAMPLE

CHAIN OF CUSTODY RECORD

COMPOSITE 6 & THRU 10
 AS ONE SAMPLE

Field Record

Sample Type SOIL

Container Type BRASS LINER

Laboratory Record

Lab No. _____

Contract Laboratory Record
 Laboratory Name _____

Sample ID	Sampled By	Date	Received By	Date	Condition	Received By	Date	Condition
DFD CSS #1	BH	11/24/89						
DFD CSS #2	BH	"						
DFD CSS #3	BH	"						
DFD CSS #4	BH	"			COMPOSITE AS ONE			
DFD CSS #5	BH	"			BTX5 & TPH AS GASOLINE			
DFD CSS #6								
DFD CSS #7	DFD #1							
DFD CSS #8	DFD #2				COMPOSITE AS ONE			
DFD CSS #9					BTX5 & TPH AS GASOLINE			
DFD CSS #10								

Released to Courier By Field Personnel

Released To Lab by Courier

Released to Lab by Courier

Received by Courier _____

Received by Lab _____

Received by Lab _____

CHROMALAB, INC.

Analytical Laboratory
Specializing In GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#238)
- Drinking Water (#955)
- Waste Water
- Consultation

December 4, 1989

ChromaLab File # 1189127

Hageman-Schank, Inc.

Attn: Bruce Hageman

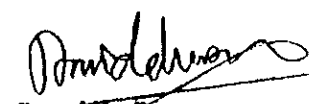
Re: Two composited soil samples for Gasoline/BTEX analyses


Project Name: Doughery Fire Station #1, soil aeration
Duration of Analysis: Nov. 28, Dec. 4, 1989

Results:

Sample No.	Gasoline (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
DFD CSS #1-5	5.6	N.D.	N.D.	N.D.	N.D.
DFD CSS #6-10	2.9	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	102.2%	103.1%	94.7%	81.9%	96.8%
DETECTION LIMIT	2.5	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	MOD.8015	8020	8020	8020	8020

ChromaLab, Inc.


 David Duong
 Senior Chemist


 Eric Tam
 Laboratory Director

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25100.7 OF THE HEALTH AND SAFETY CODE.		
REPORT DATE 1w 1w 0d 5d 8d		CASE #		SIGNED _____ DATE _____		
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT BRUCE HAGEMAN		PHONE (415) 837-2926		SIGNATURE 	
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER _____		COMPANY OR AGENCY NAME HAGEMAN-SCHANK, INC			
ADDRESS 7494 DONOHUE DRIVE STREET CITY DUBLIN STATE CA 94568						
RESPONSIBLE PARTY	NAME DOUGHERTY REGIONAL FIRE AUTHORITY		CONTACT PERSON TOM HATHCOX, FIRE MARSHAL		PHONE 415-829-2333	
	ADDRESS 9399 STREET FIRCREST LANE CITY SAN RAMON STATE CA 94583					
SITE LOCATION	FACILITY NAME (IF APPLICABLE) DOUGHERTY FIRE STATION # 1		OPERATOR F. M. TOM HATHCOX		PHONE (415) 829-2333	
	ADDRESS 7494 DONOHUE DRIVE STREET CITY DUBLIN COUNTY ALAMEDA 94568					
CROSS STREET NR. AMADOR VALLEY BLVD.		TYPE OF AREA <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> RURAL <input type="checkbox"/> RESIDENTIAL <input type="checkbox"/> OTHER _____		TYPE OF BUSINESS <input type="checkbox"/> RETAIL FUEL STATION <input type="checkbox"/> FARM <input type="checkbox"/> OTHER FIRE STA.		
IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME ALAMEDA COUNTY HEALTH		CONTACT PERSON MR. GIL WISTAR		PHONE (415) 271-4320	
	REGIONAL BOARD SAN FRANCISCO BAY		CONTACT PERSON LES FELDMAN		PHONE ()	
SUBSTANCES INVOLVED	(1) NAME GASOLINE REGULAR		QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN			
	(2)		<input type="checkbox"/> UNKNOWN			
DISCOVERY/ABATEMENT	DATE DISCOVERED 1w 1w 0d 2d 8y 9y		HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input checked="" type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER _____			
	DATE DISCHARGE BEGAN _____ <input checked="" type="checkbox"/> UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> REPLACE TANK <input checked="" type="checkbox"/> CLOSE TANK <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> OTHER _____			
HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE 1w 1w 0d 2d 8y 9y						
SOURCE/CAUSE	SOURCE OF DISCHARGE <input checked="" type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER _____		TANKS ONLY/CAPACITY _____ GAL. AGE _____ YRS <input type="checkbox"/> UNKNOWN		MATERIAL <input type="checkbox"/> FIBERGLASS <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> OTHER _____	
	CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input checked="" type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input type="checkbox"/> SPILL <input type="checkbox"/> OTHER _____					
CASE TYPE	CHECK ONE ONLY <input checked="" type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)					
	CHECK ONE ONLY <input checked="" type="checkbox"/> SITE INVESTIGATION IN PROGRESS (DEFINING EXTENT OF PROBLEM) <input type="checkbox"/> CLEANUP IN PROGRESS <input type="checkbox"/> SIGNED OFF (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> NO FUNDS AVAILABLE TO PROCEED <input type="checkbox"/> EVALUATING CLEANUP ALTERNATIVES					
REMEDIAL ACTION	CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS)					
	<input type="checkbox"/> CAP SITE (CO) <input type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IB)		<input checked="" type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS)		<input type="checkbox"/> TREATMENT AT HOOKUP (RH) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> OTHER (OT) TO BE DETERMINED	
COMMENTS						