REPORT ON
SUBSURFACE INVESTIGATION
RELATED TO WELL INSTALLATION AND BORINGS

SITE LOCATION:
800 Franklin Street
Oakland, CA

Prepared for:

Montclair Valle Vista Partnership
812 5th Avenue
Oakland, CA 94606
Attn: Mr. Tommy Chiu

MEC Project No. 90-1008

By :

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Report/PHASE II, 800 Franklin St., Oakland, CA 01/20/92

INTRODUCTION

This report describes the work performed by Miller Environmental Company at 800 Franklin Street, Oakland, California (Alameda County Accessor's Parcel No.1-193-15), owned by Chen-Tso Chiu (aka: Tommy Chiu) and Yu-Hua Chiu, 100 Columbine Dr., Hercules, CA 94547.

The main purpose of the work was to perform a Phase II investigation of the subsurface which included drilling, installation and sampling of ground-water monitoring wells located off-site. Data collected from the wells was used to determine the horizontal and vertical extent of hydrocarbon contamination in ground water and soil below the site and beneath City of Oakland property adjacent to the site (intersection of 8th and Franklin Streets). This report includes a description of the work performed, field observations, results of analyses, and recommendations for further action (if appropriate) based on the findings of this project. Correspondence should be directed c/o Mr. Tommy Chiu, 812 5th Avenue, Oakland, CA, 94606.

BACKGROUND/SITE HISTORY

The site, a former service station property, is located on the east corner of Franklin and Eighth Street in Oakland, California (see attached site location map, Figure 1).

We understand that development work at the property has been contracted in the past under the names of Alex Shaw and Associates, and Dynagroup Development, Inc. of San Francisco. MEC's Phase I Report (11/7/89) on the site was completed for Dynagroup Development, Inc.

The 50' x 75' lot is bordered on two sides by commercial properties. Five underground storage tanks (UST's) are known to have existed at the site. At some time prior to June, 1988 one of the tanks was removed. Available records do not indicate who pulled the tank, the contents of the tank, or the exact date of removal. It is believed that this tank was located close to the current location of monitoring well MW1 (see Figure 2).

Due to proposed commercial development plans for the site a soil and foundation study was conducted by Frank Lee & Associates in June 1988. Limited analysis of samples collected from soil borings for this study did not indicate the presence of fuel hydrocarbon contamination.

A follow-up soil investigation conducted by LW Environmental Services, Inc. in August 1988, found high concentrations of gasoline hydrocarbons (1580 and 8340 mg/kg) near the four remaining UST's at the site [note: milligrams per kilogram

FIGURE 1
Site Location Map

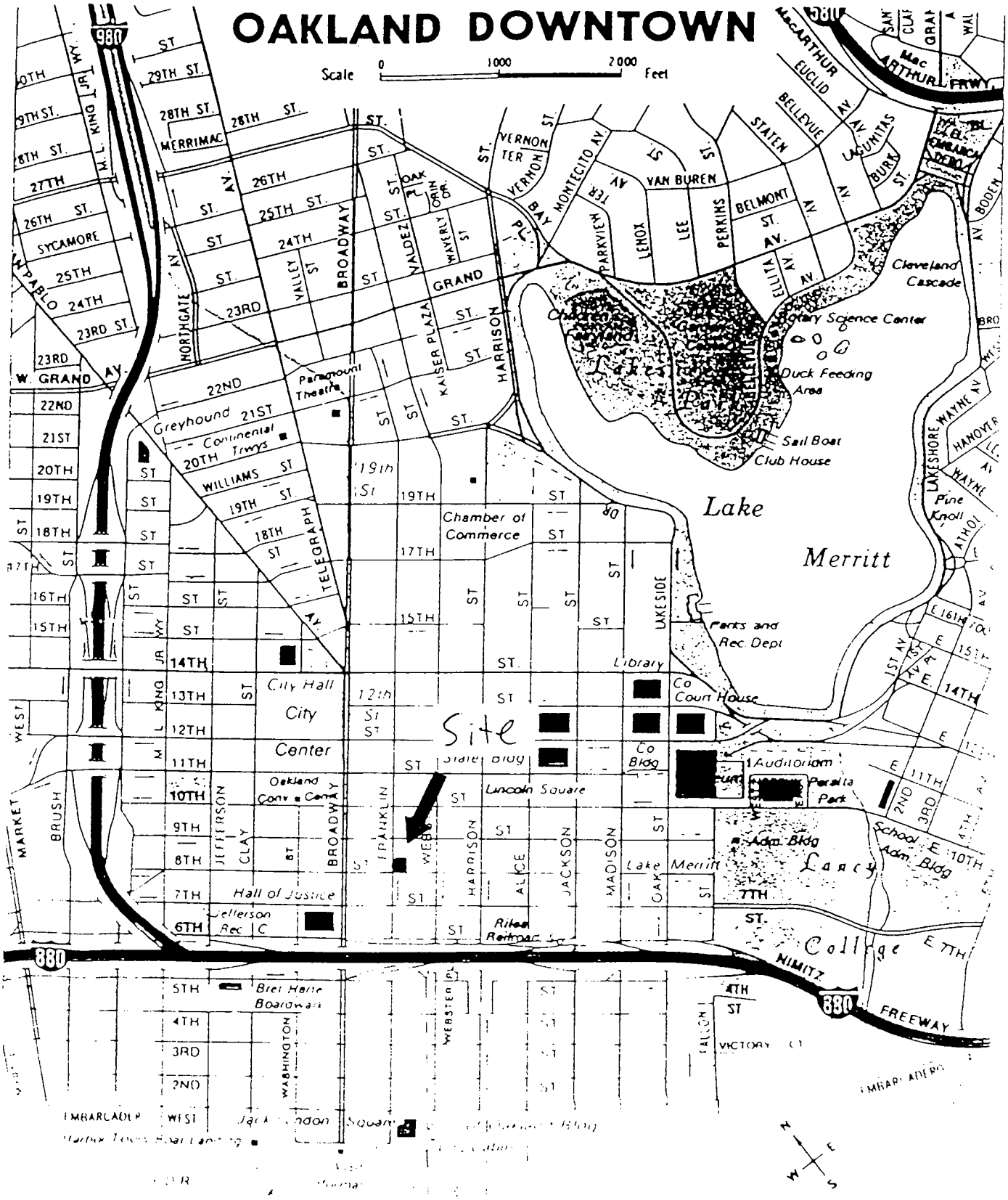
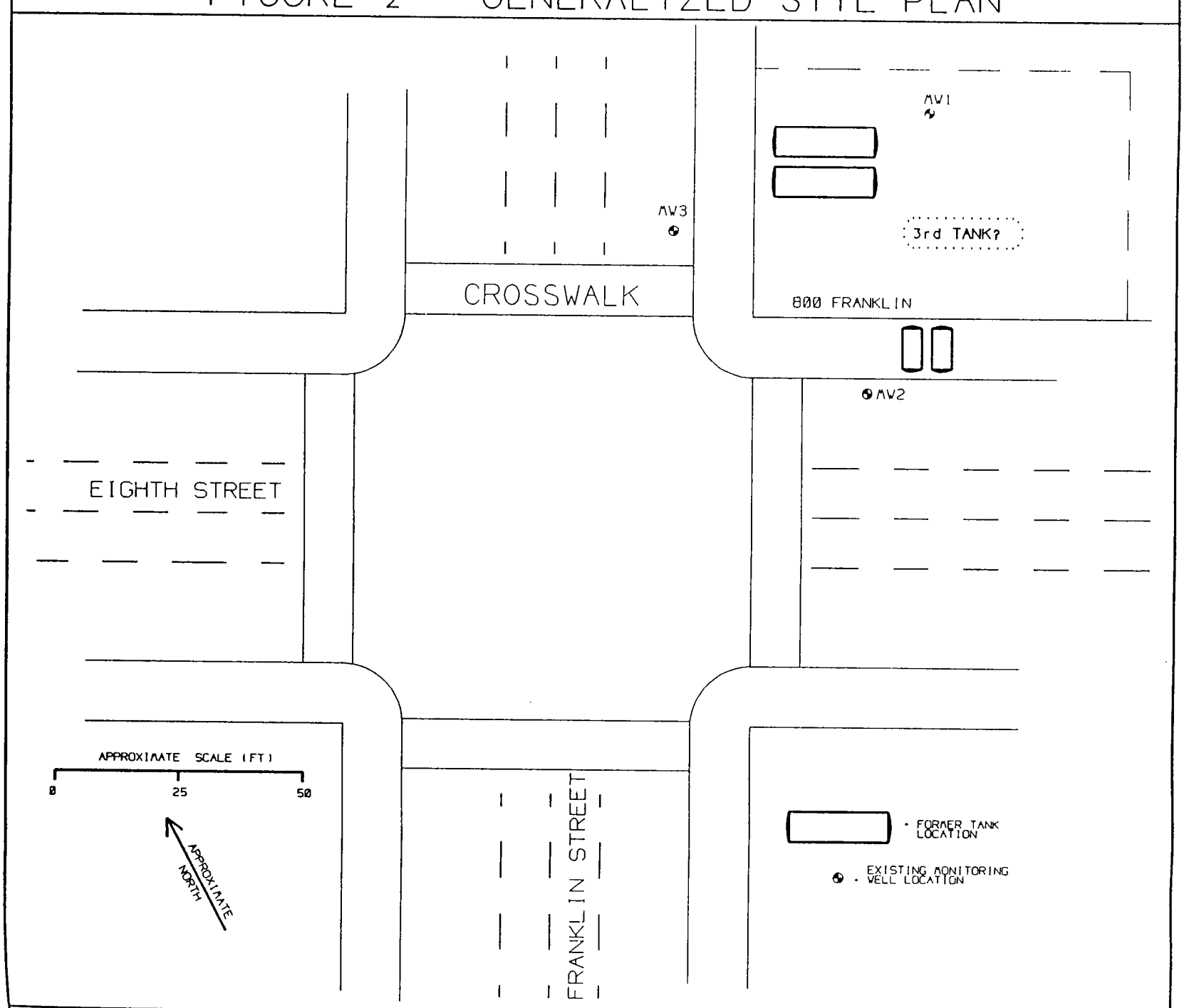


FIGURE 2 - GENERALIZED SITE PLAN



MONITORING WELL LOCATIONS
INTERSECTION OF 8TH AND FRANKLIN STREETS, OAKLAND, CA

(mg/kg) is equivalent to parts per million (ppm)]. Removal of the UST's and contaminated subsurface soil was recommended by LW Environmental Services.

We understand that the Robert J. Miller Company removed and disposed of the four remaining tanks: two 6000 gallon gasoline tanks, one 550 gallon waste oil tank and one 1000 gallon solvent tank in June 1989. The former tank locations are shown on the site plan in Figure 2. We further understand that The Traverse Group Inc. (TGI) collected soil samples from beneath each tank. All soil samples collected from the pits and spoils pile were analyzed for total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, TPH as waste oil, benzene, toluene, ethylbenzene, and xylene. In addition to these analyses selected samples were tested for purgeable organics (EPA 8240) and semi-volatile organics (EPA 8270). The semi-volatile chemical scan was requested by the Alameda County Health Care Services Agency (ACHCSA) due to the unknown nature of products stored in the solvent and waste oil tanks.

The analytical results indicated high levels of fuel hydrocarbon contamination in the northeast corner of the large gasoline tank pit (3100 ppm TPH as gasoline and 1350 ppm TPH as waste oil) and in the waste oil-solvent tank pit (up to 2300 ppm TPH as gasoline, and 4000 ppm as TPH as waste oil).

Of the purgeable and semi-volatile organics (other than BTEX) trace amounts of bis (2-ethylhexyl) phthalate, napthalene, and 2-methyl-napthalene were detected. The concentrations measured of these organics were all less than 1.0 ppm and were not considered a threat to environmental quality by TGI (See TGI report to ACHCSA) by TGI, dated July 1989). Laboratory results from the tank pull were also included in the initial workplan prepared by Miller Environmental Company (Workplan - Alex Shaw, dated August 24, 1989).

PREVIOUS WORK - MILLER ENVIRONMENTAL COMPANY

Background Miller Environmental Company
All documented environmental work discussed in this report re: the Alex Shaw site has been conducted under the supervision of professionals associated with the Miller Group of Companies.

Work directly associated with the construction of the building at the site, including work contracted to others by the owner for re-excavation, hauling, etc. should not be included under "environmental work" described above.

Site Investigation By Miller Environmental Company

A preliminary subsurface investigation and limited remediation work was conducted by MEC. The primary objectives of the investigation were: 1) to determine ground water depth and direction of flow, 2) to investigate the extent of soil contamination in the immediate area, and 3) to determine whether ground water contamination had occurred. Underground fuel leak cases on record at the Regional Water Quality Control Board (RWQCB) office in Oakland were reviewed as a means of identifying known contamination problems in the general vicinity of the 800 Franklin site.

Three ground water monitoring wells were installed as part of the subsurface investigation. Well locations are shown on Figure 2. Soil samples were collected from the borings and the monitoring wells were purged and sampled for ground water analysis. The wells were surveyed by a licensed surveyor and water levels were subsequently measured in all three monitoring wells. These data were used to estimate ground water gradient and flow direction.

Prior to drilling the borings at the site, the former tank pits were over-excavated and additional contaminated soil was removed in an effort to eliminate potential sources of contamination. Soil samples were collected from the bottom and sidewalls of the pits following re-excavation.

Laboratory analyses results indicated that soil contaminated with petroleum hydrocarbons had been effectively removed from the vicinity of the former UST's. The highest levels detected in soil samples from the re-excavated area in the interior of the property were 2.3 ppm TPH as gasoline, 0.05 and 0.14 ppm respectively of the purgeable constituents toluene and xylene and 80 ppm TPH as waste oil. No TPH as diesel, and no benzene or ethylbenzene were detected in the samples.

Analysis of soil samples collected from the pit in the sidewalk (EX2 samples) yielded entirely different results. Re-excavation was not successful in removing all highly contaminated soil from this area. Detected levels in EX2-A, collected from the sides of the pit toward 8th Street, were 10,000 ppm TPH as gasoline, 250 ppm TPH as diesel, and 400 ppm TPH as waste oil. The extent of the excavation in this case was limited by machinery capabilities, public utility installations and the proximity of 8th Street along the southern edge of the excavation.

All soil removed during the additional excavation phase, along with the "contaminated" soil stockpiled at the time of tank removal, was hauled by a licensed hazardous waste hauler to the CLASS I disposal facility for hazardous waste located in Kettleman City, California. The total volume hauled was

estimated at 32 cubic yards. Copies of the hazardous waste manifest forms were included in MEC's Phase I report (Report on Subsurface Investigation and Remediation of Contaminated Soil, November 7, 1989).

The pit in the sidewalk was backfilled and compacted with clean fill. The larger pit in the interior of the property was backfilled and compacted with a combination of clean fill and uncontaminated soil removed during initial excavation of the gasoline tanks, per the approved 9/1/89 amendment to the workplan. This backfill was considered to be temporary and the advisability of removal of all or a portion of the soil to a Class III landfill during the construction phase should be considered.

Drilling and Well Construction

Three borings were drilled to describe the geology, locate the water table, and install the monitoring wells. Figure 2 shows the location of the wells in relation to the site.

Each of the monitoring wells were drilled to the water table with hollow stem augers, logged and sampled.

Two-inch diameter, threaded PVC casing was used in well construction. The casing was capped at both ends and a Christy box installed at the surface. Locks were attached to preclude tampering. Individual construction for each well was described in the November 1989 report. Copies of boring logs were also included.

The monitoring wells were bored to a depth of 35 feet below ground level. Each well was constructed with fifteen feet of .01-inch slotted casing between 20 and 35 foot depths and with blank casing from 20 feet to the surface. Soil samples were collected at five foot intervals beginning at six feet below grade and terminating at the water table. The wells were developed on September 19, 1989. Soil and ground water samples were delivered under chain-of-custody procedures to a state certified laboratory for hazardous waste testing.

Site Hydrogeology

The geologic materials encountered during the on site drilling were described in our 11/7/89 report. Ground water levels were estimated to be between 24 and 25 feet below grade during drilling. Water levels were measured with an electric sounder after the wells had stabilized and on two occasions thereafter.

The three wells were surveyed on October 11, 1989 by a California licensed surveyor. A plat of survey was included in the MEC report. The water levels and conversions to elevations from the 11/7/89 report are reproduced in Table 1, Page 5.

Table 1

WATER LEVEL DEPTHS AND ELEVATIONS OF OCTOBER 12, 1989

WELL	TOC Elev.	Depth	Elevation
MW1	33.42	22.87	10.55
MW2	33.65	23.25	10.40
MW3	34.23	24.02	10.21

TOC = top of casing

The ground water gradient and flow direction have been estimated using these data with a computer model. Ground water elevation contours generated by the model indicated that ground water was flowing in a west-northwest direction at the Shaw site. The calculated gradient was estimated at 0.006 ft/ft.

Other ground water studies in the area reported ground water gradients which were not consistent. Accordingly, no attempt was made to compare the gradient estimate at 800 Franklin with the above-referenced studies.

Results of Laboratory Analyses - Well Installation

Soil and water samples were sent to a laboratory certified by the State of California Department of Health Services for testing and analysis of water and hazardous waste. Samples were analyzed using the following procedures developed by the Environmental Protection Agency (EPA):

EPA 5020/8015/602 - total petroleum hydrocarbons (TPH) as gasoline
EPA 3550/3510/8015 - TPH as diesel
EPA 3550/SM503E/418.1 - TPH as waste oil
EPA 5030/8020 - benzene, toluene, ethylbenzene, and xylene (BTEX)

In addition, ground water samples were analyzed for purgeable organics using EPA methods 601/5030.

Soil

The analytical results for soil samples are summarized in Table 2, Page 6.

Table 2

ANALYTICAL RESULTS FOR SOIL BORINGS

Sample	ft Depth	Gasoline	Diesel	Waste Oil	B	T	X	E
MW1-A	6	ND	23	30	ND	ND	ND	ND
MW1-B	11	ND	ND	ND	ND	ND	ND	ND
MW1-C	16	ND	ND	ND	ND	ND	ND	ND
MW1-D	21	52	ND	ND	0.12	0.7	4.5	0.53
MW1-E	26	ND	ND	ND	ND	ND	ND	ND
MW2-A	6	ND	ND	ND	ND	ND	ND	ND
MW2-B	11	ND	ND	ND	ND	ND	ND	ND
MW2-C	16	ND	ND	ND	ND	ND	ND	ND
MW2-D	21	1,900	110	50	7.4	51	180	24
MW2-E	26	7,800	170	30	52	220	400	77
MW3-A	6	ND	ND	ND	ND	ND	ND	ND
MW3-B	11	ND	25	ND	ND	ND	ND	ND
MW3-C	16	ND	ND	ND	ND	ND	0.07	ND
MW3-D	21	2,200	160	40	7.5	42.3	180	16
MW3-E	26	24	ND	ND	0.6	1.1	1.4	0.17

a) All results are expressed in milligrams per kilogram (mg/kg). Mg/kg is equivalent to parts per million (ppm).
b) ND = Not detected

Ground Water

Although fuel hydrocarbon contamination was not detected in MW1, low levels of 1,2-Dichloroethane (DCA) and chloroform were detected. Fuel hydrocarbons were also detected in moderate concentrations in MW2 and MW3. DCA was not detected in MW2 but was present in MW3 at 70 parts per billion (ppb). [A level approximately ten times the concentration found in MW1.] DCA may be related to gasoline contamination as it has been used as an anti-knock additive. The remaining compounds included in the 601/5030 test for purgeable organics were not detected in any of the ground water samples.

Results for all detected compounds (excepting TPH as diesel which was detected at less than 0.5 ppm in MW2 and MW3) are shown in Table 3, on Page 7. Benzene has a very low action level (1-ppb); no action level has been established for gasoline. The California Department of Health Services (DHS) guideline action levels for DCA and chloroform are 0.5 ppb and 6.0 ppb, respectively for drinking water.

Table 3

SIGNIFICANT RESULTS FOR GROUND WATER SAMPLES
all concentrations in ppm except where noted

Well	Gasoline	Waste Oil	B	T	X	E	DCA	Chlrfrm
MW1	ND	ND	ND	ND	ND	ND	8.6	0.8
MW2	38.0	3.9	1.3	1.2	4.7	ND	ND	ND
MW3	87.0	4.5	3.2	8.8	6.5	ND	70.0	ND

a. DCA (1,2-Dichloroethane) and Chloroform are reported as parts per billion (ppb).

[Information regarding ground water beneath the site may be found under "Site Hydrogeology" page 4, of this report; and in the MEC Phase I report dated 11/7/89.]

Summary of Previous Work
High levels of gasoline contamination were found in MW2 and MW3; BTEX results are correspondingly above action levels for these samples. Lower levels of diesel fuel were found in the same soil samples. Highest levels of contamination were found at a depth of 21 feet in MW3 and at 21 and 26 feet in MW2. Soil contamination in MW1 was not detected except for low levels at the 6 and 21 foot depth. The area surrounding MW1 was regarded as below action levels for the purposes of remediation.

The proposed development of the site included construction of a multi-story commercial building. Excavation and removal of soil to an approximate average depth of ten (10) feet for foundation and basement construction was required.

As per the workplan of 8/24/89, MW1 was a temporary well, installed with the intention of removal prior to construction of the commercial building.

Approval to proceed with construction of the new building was granted (letter from ACHCSA dated 1/12/90). Conditions for approval by ACHCSA included removal of all soil in which TPH as gasoline exceeded 1,000 ppm.

CONCLUSIONS (11/7/89 Report)

The former underground tanks at the site appear to have been the major source of contamination at this site. Excavation of contaminated soil following removal of the tanks was effective in removing the source of contamination at the interior of the property (former location of gasoline tanks). Contamination in the waste oil/solvent tank pit (sidewalk area) extended beyond the limits of excavation capabilities and was not entirely removed. Approximately thirty-two cubic

yards of contaminated soil excavated from both pits was hauled and disposed of at a CLASS I facility for hazardous waste.

Contamination remained immediately downgradient of the former underground tanks. After removal of accessible contaminated soil on site, it was apparent that contamination extended off site in soil at approximately 20 to 25 feet below grade.

The report pointed out that development plans for the site required excavation to approximately ten feet below grade. Therefore the situation should not affect building plans, especially with regard to worker safety (i.e. contact with contaminants).

Ground water was found to be contaminated with petroleum hydrocarbons in MW2 and MW3 (off site wells) at levels which exceed known action levels. However, no free product was observed. Contaminant levels were found to be the highest in MW3. However, these levels were moderate (87 ppm TPH as gasoline and 3.2 ppm benzene).

Low levels of DCA (dichloroethane) were also detected in MW1 and MW3, but the level detected (70 ppb in MW3) was above the DHS guideline of 0.5 ppb. Reasons for the presence of DCA in MW1 and MW3 were unclear; possible sources for these aromatics were discussed in the 11/7/89 report.

Ground water flow gradient data indicated flow to the west-northwest. However, ground water flow directions may have varied over the past few years due to remedial pumping programs on adjacent properties and/or pumping systems associated with reduction and containment of ground water invasion in Bart tunnels nearby.

Fine-grained brown sand with varying proportions of silty clay was encountered in each well a few feet below the surface; the water table, at approximately 25 feet below grade, lies within "flowing" sands of this stratigraphic unit. The above-referenced sand unit may lie within the Merritt Sands which were deposited as dune and beach sediment. The silty clay in this locality probably represents "onlapping" of the sand by the more recent Bay Mud.

It was MEC's understanding that ground water had been considered essentially non-potable in this locality. These factors were important in evaluating the site because maximum contaminant levels (MCLs) set by the Department of Health Services usually apply to drinking water aquifers.

RECOMMENDATIONS (11/7/89 Report)

Following completion of our Phase I investigation, recommendations by MEC for additional work at the site were guided by certain limitations which included the feasibility of removal or treatment of the remaining contaminated soil in the intersection of Franklin and Eighth Streets.

MEC noted that removal or treatment of the remaining contaminated soil beneath that intersection (8th & Franklin) was probably not feasible. MEC also observed that leaving the contamination in place would likely require a program for continuous periodic monitoring. MEC further stated that additional subsurface investigation might be necessary if contaminant levels in the ground water did not decrease significantly in the near future.

Since ground water contamination was found adjacent to Franklin and 8th Streets, and this contaminant plume probably extends beneath the street intersection, no remediation procedure was recommended for soil or groundwater beneath the above-referenced city property.

MEC did, however, recommend quarterly sampling of wells MW2 and MW3 to monitor ground water contamination. MW1 would also be included in the sampling program until construction activity began and the well was destroyed.

The final report for Phase I was forwarded with the owner's approval for review by ACHCSA and the RWQCB regarding possible contamination beneath the adjacent City of Oakland property.

Response to Phase I Report by Jurisdictional Agencies
A letter from the ACHCSA dated January 12, 1990 acknowledged the limitations relative to additional work described in the "RECOMMENDATIONS" section of MEC's November 1989, Phase I report. A summary of the agency posture includes the following scenario:

Given: that complete physical removal of contaminated soil is not always feasible from an inaccessible site (i.e. beneath the roadway at 8th and Franklin), a waste discharge permit would be required from the RWQCB as a necessary alternative. The effect of this permit provides for identification, description and monitoring of subsurface contamination. Accordingly, MEC's Phase II workplan provided for additional boreholes and monitoring wells to that purpose.

ACHCSA Approval of Site Construction
It is our understanding that the Alameda County Health Care Services Agency (ACHCSA) concurred with MEC's conclusion that soil excavation in the interior portion of the 800 Franklin site was successful in removing all but minor residual

hydrocarbon contamination. No objections to implementation of construction activities as previously described for the site (letter dated 12/13/89 from Mr. Tien Feng of Sue Associates) were raised by the jurisdictional agencies. Construction of the building began in early 1991. Monitoring well MW1 was preserved in the construction process and is accessible for sampling in the basement of the partially completed structure.

CLIENT/GOVERNMENT COORDINATION - MILLER ENVIRONMENTAL COMPANY

In accordance with guidelines set by the Regional Water Quality Control Board (RWQCB) - San Francisco Bay Region for investigation of subsurface contamination related to underground storage tank releases, MEC provided geologic and engineering services as the investigation proceeded; both on and off site.

MEC prepared permit applications, necessary reports and certifications, site condition reports, and recommendations for any remedial action as required. During the course of the work, communication was maintained with appropriate local government agencies having jurisdiction.

CHANGE IN SCOPE (Additional Work - PHASE II - MEC)

Following review of the MEC report, ACHCSA stated that additional remedial and/or monitoring actions would be required at the 8th and Franklin Street site (letter dated January 12, 1990). Subsequently, MEC personnel discussed the status of the site with both the ACHCSA and the RWQCB. Agreement was reached for the following actions:

a) Define the geographical extent of soil and ground water contamination.

b) Access the effect of hydrocarbon contamination on ground water quality with respect to potential damage to usable aquifers.

c) Implement a ground water monitoring program to provide periodically updated data on the extent of contamination. Such a program should be able to detect lateral movement of contaminants and to define a contaminant plume if present.

d) The monitoring program should be conducted on a quarterly basis for a minimum of one year. The required frequency of further monitoring should be based on an evaluation of first year data.

The workplan prepared by MEC for compliance with the above program included the installation of three monitoring wells on City property off site and on opposite sides of the street from the existing wells. Three additional boreholes would be drilled on site. The work to be under the supervision of a California Registered Geologist. MEC's workplan provided for the following steps:

1. Prepare a Site Safety Plan discussing the precautions and protective equipment required for the work.

2. Obtain appropriate permits (drilling, encroachment, excavation, parking, etc.) to drill six soil borings and to install ground-water monitoring wells in three of the borings. All borings and well installations are to be located offsite.

3. Log and collect appropriate soil samples from the borings.

4. Install three 2-inch-diameter ground-water monitoring wells (MW-4 through MW-6) in selected borings.

5. Develop, purge, and collect ground water samples from the newly-constructed monitoring wells for laboratory analysis. In addition, obtain water samples from existing monitoring wells MW-1 through MW-3 for analysis.

6. Subcontract a licensed surveyor to properly survey the wells and selected on-and-offsite features. Evaluate the ground-water gradient from the data collected.

7. Interpret field and laboratory data, including all soil samples from the six borings and ground water samples from onsite and offsite monitoring wells.

8. Prepare a report documenting field methodology, conclusions and recommendations.

The Phase II workplan specified locations for the additional boreholes and monitoring wells. Soil borings B1, B2, and B3 would be placed along the edge of the site to provide important data on the geographical extent of soil contamination in the near vicinity of the former underground storage tanks.

Wells MW4, MW5, and MW6 would be placed for optimum monitoring of downgradient ground water contaminant levels based on existing information. The monitoring wells were scheduled for installation after observations of soil contamination (if any) in borings B1, B2, and B3 had been made.

SCOPE OF WORK - PHASE II - MILLER ENVIRONMENTAL COMPANY

The primary objective of the Phase II subsurface investigation and monitoring well installation work conducted by MEC at the 800 Franklin site was to further define the lateral extent of hydrocarbon contamination off site beneath City property. Soil and ground water samples were to be collected to provide data regarding ground water gradient and direction of flow beneath the 800 Franklin property and beneath the 8th and Franklin Street intersection. Information concerning the degree of contamination of both soil and ground water, off site, was an additional objective.

Prior to drilling, MEC obtained encroachment and excavation permits from the City of Oakland. MEC also obtained a borehole and well installation permit from the Alameda County Flood Control and Water Conservation District (ACFCWCD). Copies of these permits are in Appendix A.

On September 11, 1991 an MEC geologist was present at the 800 Franklin site to supervise the drilling of boreholes and installation of ground-water monitoring wells and to collect soil samples from the borings.

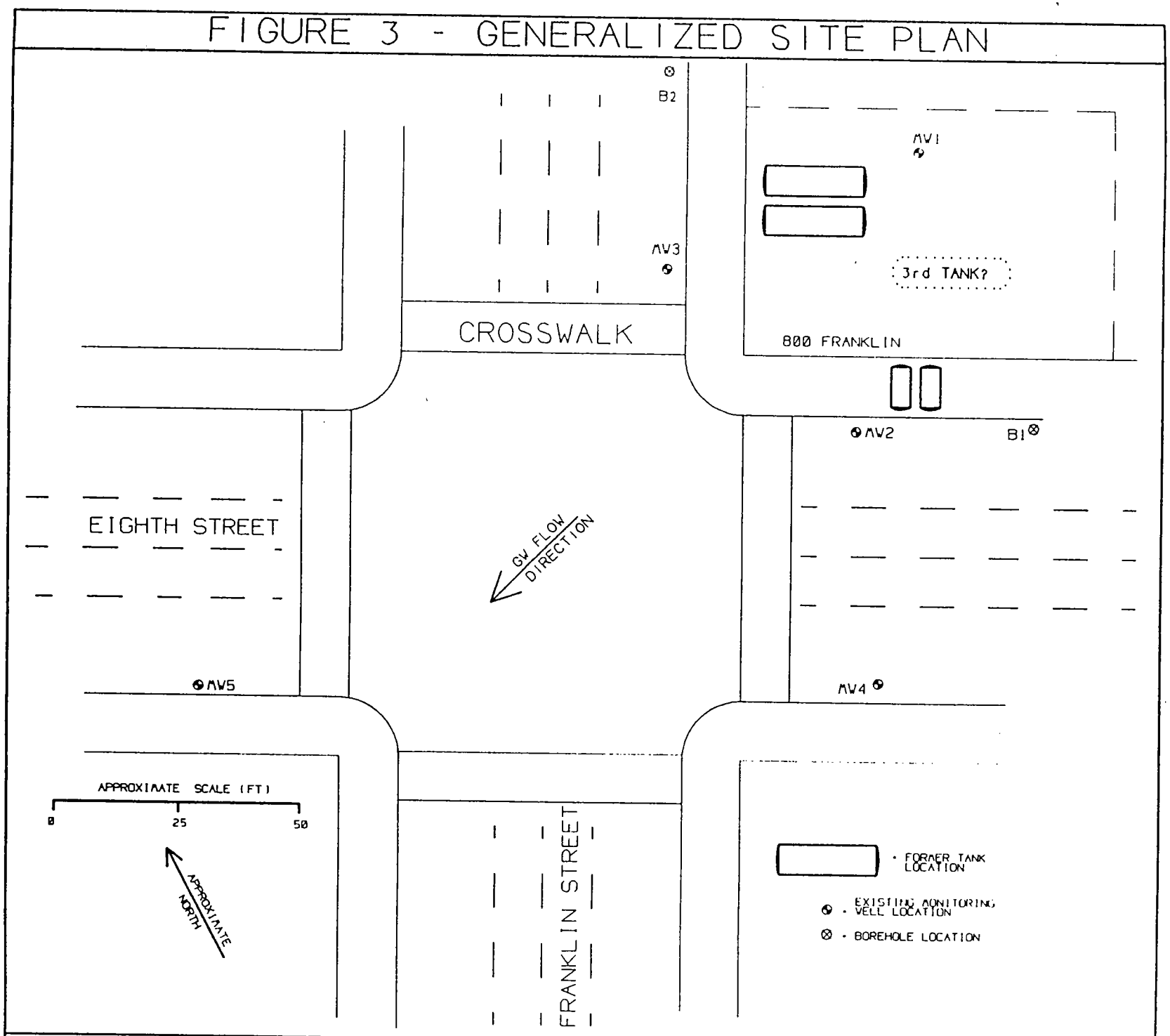
The concrete pavement near the curb on City property was cored and a 25-foot borehole (B1) was drilled and sampled opposite the southeast corner of the 800 Franklin property on 8th Street. After coring the concrete gutter near the northeast corner of 8th and Franklin, a second boring (B2 [herein referenced as B2 "A"]) encountered an unmapped cable approximately 18 inches below the pavement. The shallow hole was grouted and abandoned.

MEC's workplan provided for three soil borings (B1, B2 and B3) to be completed and sampled and three additional borings for installation of ground-water monitoring wells MW4, MW5 and MW6. During the September 11 site visit only one borehole (B1) was completed; no borings for monitoring wells were drilled on the above-referenced date.

On October 2 and 3, 1991 an MEC geologist returned to the 8th and Franklin Street site to supervise the drilling of one boring (a relocation of B2-"A") and two additional 35-foot borings in which monitoring wells MW4 and MW5 were installed.

No further attempt was made to place a borehole on City property near the southwest corner of the 800 Franklin site as City of Oakland traffic restrictions prevented drilling in the street or within a crosswalk. A change in scope due to site conditions was necessary and the location for borehole B2 was moved approximately 50 feet north on Franklin Street opposite the northwest corner of the 800 Franklin property (Figure 3). [This location corresponds with "workplan" location B3; MEC Workplan dated 6/6/90.]

FIGURE 3 - GENERALIZED SITE PLAN



BOREHOLE AND MONITORING WELL LOCATIONS
INTERSECTION OF 8TH AND FRANKLIN STREETS, OAKLAND, CA

Borehole B2 was drilled and sampled on October 2nd. The location of boreholes within the intersection again proved difficult when a 4' X 4' concrete storm drain was encountered while drilling the boring intended for installation of MW4. [Well MW4 is herein referenced as MW4 "A"]. This boring was attempted during the October 2 site visit and was located near the curb at the northwest corner of 8th and Franklin Street. Since the concrete storm drain angled across the corner approximately due east, traffic restrictions again precluded further drilling.

The drilling rig was then moved across the intersection to a location approximately 30 feet east along 8th Street from the southeast corner of 8th and Franklin. After coring the concrete, a borehole was drilled near the curb to a depth of 35 feet. A 2-inch monitoring well (MW4) was installed in the boring. [This location corresponds with "workplan" location MW6; MEC Workplan dated 6/6/90.]

On October 3, 1991, a 35-foot borehole was drilled and ground-water monitoring well MW5 was installed in the boring. MW5 was drilled without incidence (no hidden obstructions) near the curb on the 8th Street side of the southwest corner of the intersection.

All completed borings were logged and sampled at five-foot intervals to the ground water interface, approximately 25 feet below grade. Borehole and well locations are shown on Figure 3.

DRILLING AND WELL CONSTRUCTION

Two borings were drilled to describe the geology, locate the water table, and install monitoring wells MW4 and MW5. The generalized site plan (Figure 3) shows the location of the wells in relation to the site. Each of the borings was drilled into the water table with hollow stem augers, logged and sampled.

Two-inch diameter, threaded PVC casing was used in well construction. The casing was capped at both ends and a Christy box installed at the surface. Locks were attached to preclude tampering. Individual construction for each well is described below and shown on the boring logs (Appendix B). Each monitoring well was bored to a depth of 35 feet below ground level. The wells were constructed with 15 feet of .01-inch slotted casing between the 20 and 35-foot depths and blank casing was installed from 20 feet to the surface. Screening was placed primarily in the zone of fine sand and interbedded lenses of course sand present below the 25-foot depth.

Due to flowing sand conditions, a natural sand pack formed around the casing from 35 feet below grade to 30 feet below grade. The annular space above this interval and along the screened interval and 2 feet above this interval (from 18 feet to 30 feet below ground level) was packed with #3 Monterey sand. The remaining annular space was sealed to the surface with neat cement.

SAMPLING

Soil samples were collected at 5-foot intervals beginning at 5 feet below grade. Soil samples were collected with a modified split-tube sampler fitted with three clean brass liners. The lowermost brass liner containing the soil sample was covered with teflon wrap, capped and placed on ice for delivery to the laboratory for analysis. Laboratory analyses were conducted on soil samples from the 5, 10, 15, 20 and 25-foot intervals for each of the two wells.

The wells were developed and allowed to recover to 100%. Approximately 1/8" of floating product was observed in monitoring well MW2. After removing a few bailers of ground water, the product went away and did not return after allowing the well to recover to 100%. Samples of ground water were collected from the on site wells MW1, MW2 and MW3 and from the new off site wells MW4 and MW5 on October 31, 1991. Ground water was bailed into clean glass bottles, placed on ice and transported to the laboratory for analysis.

A composite soil sample (DC-1) was also collected from the stockpiled cuttings on October 31, 1991.

Soil and ground water samples were delivered under chain-of-custody procedures to a state certified laboratory for hazardous waste testing. (A copy of all Laboratory Results and Chain-of-Custody Records is included in Appendix C.)

HYDROGEOLOGY

Geologic Setting

San Francisco Bay lies in a low area in the Coast Range province, a region of northwest trending faults, hills and valleys. The site itself is situated on the flatlands, approximately 3500 feet from the eastern edge of the present Bay (Alameda Harbor). The Bay is a drowned valley which is thought to have originally formed by erosion of the ancestral Sacramento River (Jenkins, 1951) and subsequently widened by subsidence and a rise in sea level. Sediments deposited in Pleistocene and recent time, in what is now the Bay, include both shallow marine and continental deposits.

The youngest, surficial deposit is known as "Bay Mud" which occurs in areas adjacent to the Bay. Bay Mud is generally composed of unconsolidated, olive gray, blue gray or black silty clay. Bay Mud has been deposited in the Bay for almost 10,000 years (Helley et al., 1979) and continues to be deposited today.

In the Oakland area, several other sedimentary units are noted by Radbruch and Case (1967). The upper two units, the Merritt Sand and the San Antonio Formation, lie within 100 feet below ground surface; this was documented at Clay and 12th Streets approximately 1/4 mile north of the site, by Woodward-Clyde (1987). A deeper sedimentary formation (the Alameda Formation) is also present and is assumed to overlie bedrock known as the Franciscan Formation. The Franciscan Formation is a complex assemblage of deformed and altered sediments and volcanic rocks which commonly form bedrock in the San Francisco Bay region.

Site Hydrogeology

The geologic materials encountered during drilling consisted of fine-grained brown sand with varying proportions of clay. Silty clay was encountered immediately below the surface to about 3 feet. The sandy unit may be equivalent to the Merritt Sands which were deposited as dune and beach sediment. The clay in this locality probably represents Bay Mud "onlapping" the sand. Porosity and permeability is reduced by the presence of the clay fraction.

Ground water levels were estimated to be between 24 and 25 feet below ground surface during drilling. Water levels were measured with an electric sounder after the wells had stabilized and on two occasions thereafter.

The three initial wells (one on site [MW1] and two off site [MW2 and MW3]) were surveyed on October 11, 1989. On November 5, 1991 the two new wells MW4 and MW5 were "tied" to the previous survey through wells MW2 and MW3. These four off site wells were included in the 11/5/91 resurvey by Moran Engineering of Berkeley. Moran Engineering is a California licensed surveyor. A plat of survey for the site is included in Appendix D. The water levels of 11/06/91 and conversions to elevations are given in Table 4 on page 16.

Table 4

WATER LEVEL DEPTHS AND ELEVATIONS OF NOVEMBER 6, 1991

WELL	TOC Elev. On Site Well	Depth	Elevation
MW1	Not Surveyed		
	Initial Off Site Wells		
MW2	33.66	24.02	9.64
MW3	34.23	23.52	10.71
	Later Off Site Wells		
MW4	33.64	23.32	10.32
MW5	33.56	24.00	9.56

TOC = top of casing

A discussion of the ground water gradient and flow direction was included in the MEC Phase I Report (11/03/89). Ground water gradient and flow direction generated with a computer model indicated a west-northwest flow direction and a calculated gradient of approximately 0.006 ft/ft. Other ground water studies in the area reported that ground water gradients and flow directions were not consistent.

The most recent (Survey of 11/05/91) potentiometric surface contours indicate a gradient of .008 ft/ft and a ground water flow direction to the southwest.

RESULTS OF ANALYSES

Soil samples collected on September 11, 1991 were sent to D&M Laboratories, Petaluma, California. Soil and water samples collected on October 2, 1991 were sent to National Environmental Testing, Inc. (NET) in Santa Rosa, California. Both D&M and NET laboratories are certified by the State of California Department of Health Services for testing and analysis of water and hazardous waste.

Soil samples were analyzed using the following procedures developed by the Environmental Protection Agency (EPA):

EPA 5020/8015/602 - total petroleum hydrocarbons (TPH) as gasoline
EPA 5030/8020 - benzene, toluene, ethylbenzene, and xylene (BTEX)
EPA 3550/3510/8015 - TPH as diesel
EPA 3550/SM503E/418.1 - TPH as waste oil
EPA 9071 - Oil and Grease (Total)

In addition, ground water samples were analyzed for purgeable organics using EPA methods 601/5030.

The complete laboratory results for all soil and ground water samples are presented in Appendix C.

Soil Samples

Ten soil samples from the two off site boreholes B1 and B2 and ten soil samples from the borings for monitoring wells MW4 and MW5 (off site wells) were analyzed. These samples were collected at five foot intervals terminating at the water table. Analytical results are summarized in Table 5, below and on Page 18. Complete laboratory results are attached in Appendix C.

From soil borings

No detectable hydrocarbons were found in soil samples collected to a depth of 20 feet below grade in boreholes B1 and B2. However, soil samples from the 25-foot depth in both boreholes B1 and B2 indicated the presence of TPH as gasoline. B1 contained high TPH levels (2900 ppm), while relatively low (190 ppm) Total Recoverable Petroleum Hydrocarbons (TRPH) were detected in the sample. Low levels of Toluene and Diesel contaminant were also present.

In soil samples from borehole B2 at 25 feet significant (210 ppm to 600 ppm) levels of the associated purgeable hydrocarbon constituents toluene, ethylbenzene and xylene were detected but TPH as gasoline was relatively low (120 ppm). B2 also contained low levels of diesel; no benzene, waste oil, or oil and grease were detected in either borehole for the tests run.

Table 5

ANALYTICAL RESULTS FOR SOIL SAMPLES
BOREHOLES

Samples collected 9/11/91

Sample	ft Dep	TPH Gas	TRPH	Dsl	Waste Oil	Oil & Grease	B	T	E	X
B1	5	ND	ND	ND	NA	NA	ND	ND	ND	ND
	10	ND	ND	ND	NA	NA	ND	ND	ND	ND
	15	ND	ND	ND	NA	NA	ND	ND	ND	ND
	20	ND	ND	ND	NA	NA	ND	ND	ND	ND
	25	2900	190	160	NA	NA	ND	60	ND	ND

Table 5 cont'd

Samples collected 10/02/91

B2	5	ND	NA	ND	ND	ND	ND	ND	ND	ND
	10	ND	NA	ND	ND	ND	ND	ND	ND	ND
	15	ND	NA	ND	ND	ND	ND	ND	ND	ND
	20	ND	NA	ND	ND	ND	ND	ND	ND	ND
	25	120	NA	83	ND	ND	ND	210	310	600

a) All results are expressed in milligrams per kilogram (mg/kg). Mg/kg is equivalent to parts per million (ppm).
b) ND = Not detected
c) NA = Not analyzed

From monitoring well borings
No detectable hydrocarbons were found in soil samples collected from the borings for wells MW4 and MW5. Laboratory analyses results are summarized in Table 5A.

Table 5A

ANALYTICAL RESULTS FOR SOIL SAMPLES
MONITORING WELL BORINGS

Samples collected 10/02/91

Sample	ft Dep	TPH Gas	TRPH	Dsl	Waste Oil	Oil & Grease	B	T	E	X
MW4	5	ND	NA	ND	ND	ND	ND	ND	ND	ND
	10	ND	NA	ND	ND	ND	ND	ND	ND	ND
	15	ND	NA	ND	ND	ND	ND	ND	ND	ND
	20	ND	NA	ND	ND	ND	ND	ND	ND	ND
	25	ND	NA	ND	ND	ND	ND	ND	ND	ND
MW5	5	ND	NA	ND	ND	ND	ND	ND	ND	ND
	10	ND	NA	ND	ND	ND	ND	ND	ND	ND
	15	ND	NA	ND	ND	ND	ND	ND	ND	ND
	20	ND	NA	ND	ND	ND	ND	ND	ND	ND
	25	ND	NA	ND	ND	ND	ND	ND	ND	ND

a) All results are expressed in milligrams per kilogram (mg/kg). Mg/kg is equivalent to parts per million (ppm).
b) ND = Not detected
c) NA = Not analyzed

Ground Water 1989 sampling
Ground water samples were first collected from the three on site monitoring wells on October 12, 1989. Low concentrations of TPH as gasoline (38 ppm and 87 ppm, respectively)

were found in MW2 and MW3. The purgeable hydrocarbon constituents benzene, ethylbenzene and toluene were detected in on site wells MW2 and MW3. No xylene was reported in samples collected during the 1989 sampling.

All detectable BTEX fractions were above the Maximum Contaminant Levels (MCLs) established for drinking water under Title 22 (paragraph 64444.5) of the California Administrative Code (effective February 25, 1989) and above "Action Levels" prescribed for contaminants in drinking water by the DOHS.

The above-referenced hydrocarbon contaminants were not detected in water samples from well MW1 at that time. The three initial monitoring wells (MW1, MW2 and MW3) were not sampled again until after installation of the two additional off site monitoring wells in 1991.

1991 sampling
On October 31, 1991, water samples were collected from all ground-water monitoring wells installed by MEC. The three original wells MW1, MW2, and MW3 were sampled as were the two new off site wells MW4 and MW5.

With the exception of well MW1, laboratory analysis results indicated relatively little change from the previous sampling episode in late 1989. However, floating product was observed in MW2 during the most recent sampling episode. Although only 1/8" of product was detected, product was not detected during the 1989 sampling episode.

The October 31, 1991 sampling episode indicated very low (>1 ppm) to moderate (310 ppm) concentrations of TPH as gasoline along with associated BTEX levels in all three on site monitoring wells (MW1, MW2 and MW3). TPH as diesel was also present ranging from very low (>1 ppm) to low (25 ppm) for the tests run. No Oil & Grease (EPA 9071) was detected in water samples collected from any of the wells. Ground water samples from the two off site wells MW4 and MW5 indicated no detectable hydrocarbons to be present.

Again, as in the 1989 sampling, the detectable BTEX fractions in wells MW2 and MW3 were above "Action Levels" prescribed for contaminants in drinking water by the DOHS. Water samples from MW1 indicated that levels of BTEX were either non detectable (toluene and xylene) or below DOHS action level (benzene and ethylbenzene).

Tests for purgeable halocarbons (EPA Method 601 [GC, Liquid]) were run in all the monitoring wells. Very low levels of 1,2-dichloroethane (DCA) and chloroform were present.

Detection of DCA may be related to gasoline contamination as it has been used as an anti-knock additive in the past. Tests run on "Old" gasoline residuals may exhibit a variety of detectable halocarbons.

Chloroform, although above action level in 1989, was not detected in the 1991 water samples from the on site wells. However, DCA was present below action level in all three wells. 1,1,1- trichloroethane (trace amount) and 1,2 dichloropropane (above action level) were also encountered in water from MW3. Only traces of chloroform were detected in tests for purgeable halocarbons in the off site wells, MW4 and MW5. The remaining compounds included in the 601/5030 test for purgeable halocarbons were not detected in any of the ground water samples. The complete analytical results are presented in Appendix C.

For ease of reference results of laboratory analyses for October 1991 are summarized in Table 6.

Table 6

RESULTS FOR GROUND WATER SAMPLES

Well	TPH Gas	Dsl	Waste Oil	TOG	B	T	E	X	DCA	Chlrf
MW1	0.63	0.96	1.7	ND	.0032	ND	ND	.13	.0098	ND
MW2	10	1.5	ND	ND	1.8	1.2	.27	.96	.170	ND
MW3	310	25	ND	ND	9.3	25	5.6	27	.058	ND
MW4	ND	ND	ND	ND	ND	ND	ND	ND	ND	.0026
MW5	ND	ND	ND	ND	ND	ND	ND	ND	ND	.0011

Also detected in MW-3 were 1,2 Dichloropropane (.0007 ppm) and 1,1,1-Trichloroethane (.0014 ppm).

a) DCA = 1,2-Dichloroethane
b) Chlrf = Chloroform.
c) TPH and TOG results expressed in milligrams per Liter (mg/L) which is equivalent to parts per million. All other results expressed in micrograms per Liter (ug/L) which is equivalent to parts per billion (ppb).

DISPOSAL OF CONTAMINATED SOIL

Drill cuttings were stockpiled on the 800 Franklin Street site. Approximately 2 cubic yards of drill cuttings were placed on and covered with visquene. Results of laboratory analyses of soil samples collected by MEC on October 31, 1991, indicated no detectable levels of petroleum hydrocarbons to be present in the stockpiled soil for the tests run. The cuttings were removed to the BFI landfill in

Livermore (a Class III landfill site). A copy of the disposal certificate is included in Appendix E.

REVIEW OF UNDERGROUND FUEL LEAK CASES IN AREA

Miller Environmental has reviewed the records of underground fuel leak cases on file at the RWQCB. Within a 1/2 mile radius of the 800 Franklin Street site there are sixteen (16) reported cases of unauthorized hydrocarbon release. These cases were summarized and discussed in detail in the MEC November 1989, Phase I report.

DISCUSSION (Phase II results)

Although approval to proceed with construction of the new building was granted (letter from ACHCSA dated 1/12/90), minor soil contamination probably remains beneath the 800 Franklin site. Conditions set down by ACHCSA included removal of all soil which exceeded 1,000 ppm (completed), determination of lateral extent of soil and ground water contamination off site, discussion with RWQCB and ACHCSA concerning appropriate remediation options for ground water and a monitoring program for a minimum period of one year utilizing on site and off site monitoring wells.

Four off site wells have been installed on City of Oakland property surrounding the intersection of 8th and Franklin Streets. These wells along with the presumed up gradient well MW1, should satisfy the above-referenced monitoring requirement.

Additional work concerned with remediation alternatives for soil and ground water will be proposed to the owner, Tommy Chiu, for his consideration following submittal of this Phase II report. ACHCSA and RWQCB representatives will be apprised of measures considered appropriate for the subject site based on engineering geology, environmental compatibility and/or economics.

CONCLUSIONS

Excavation of contaminated soil was effective in removing the source of contamination at the interior of the property. Minor soil contamination may still be present in soil beneath the site. Borings and monitoring wells drilled after removal of accessible contaminated soil indicated that contamination extends off site in soil at approximately 20 to 25 feet below grade.

The onsite monitoring well (MW1) indicated very low concentrations of TPH as gasoline in ground water along with

associated BTEX levels. Low to very low levels of TPH as diesel were also present. No Oil & Grease was detected. Detectable levels of hydrocarbons were indicated to be present in the two of the off site wells MW2 and MW3.

BTEX fractions from on site wells MW2 and MW3 were above "Action Levels" prescribed for contaminants in drinking water by the DOHS. Water samples from MW1 indicated that levels of BTEX were either non detectable (toluene and xylene) or below DOHS action level (benzene and ethylbenzene).

Tests for purgeable halocarbons in both on site and off site monitoring wells indicated sporadic occurrence of very low levels of 1,2-dichloroethane (DCA) and chloroform.

Chloroform was not detected in the 1991 water samples from the on site wells. However, DCA was present below action level in all three wells. 1,1,1-trichloroethane (trace amount) and 1,2 dichloropropane (above action level) were also encountered in water from MW3. Traces of chloroform were detected in the off site wells.

Direction of ground water flow using data from wells MW3, MW4 and MW5 was southwest toward the bay. The water table lies within silty sand and should be considered as essentially non-potable in this area of Oakland. MCL standards set by the Department of Health Services usually apply to drinking water aquifers.

RECOMMENDATIONS

Following completion of our Phase II investigation, MEC recommends that additional work at the site be confined to a program of quarterly ground water monitoring at this time. Ground-water monitoring wells MW1 (on site, up-gradient well) and MW2 thru MW5 (located off site on City of Oakland property at three corners of the intersection) must be monitored for a period of one year.

It is MEC's opinion that additional subsurface investigation might be necessary both on and off site if contaminant levels in the ground water do not decrease significantly during the one year program.

Accordingly, MEC advises future consideration of possible in-situ remediation alternatives for soil and/or ground water in addition to continuing the monitoring program when sufficient data has been accumulated to recognize a trend. Proposals for remediation systems forwarded (with Mr. Chiu's approval) to the ACHCSA and RWQCB should be based upon engineering geology and environmental compatibility (i.e. recognizing the high density City locale), and should address economic parameters which are site specific.

MEC would be pleased to discuss additional work concerning follow-up remediation alternatives for soil and ground water following submittal of this Phase II report.

MEC makes no implication in this Phase II report that hydrocarbon contaminants found in soil and ground water beneath the 8th and Franklin intersection may be traced solely to the 800 Franklin site. Other possible direct and/or indirect contributors may include the following:

> As previously stated in this report and documented in our Phase I report (11/7/89, Figure 1 and Table 5), there are sixteen (16) reported cases of petroleum hydrocarbon releases to the subsurface, within a 1/2 mile radius of the 800 Franklin Street site. The Pacific Renaissance Plaza site is located one city block from 800 Franklin St. in the approximate upgradient direction. We understand that a relatively successful bioremediation effort was conducted by others to treat the contamination at that site. Available reports indicate that the ground water flow direction at the Plaza site varied from a westerly direction (regional) at the onset of the project to a northeasterly direction during pumped drawdown of the water table during remediation.

No information is available to indicate the extent of the radius of influence of the extraction system during the drawdown phase.

MEC's Phase I study also stated that the Shell Service station site at 461 8th Street was in closest proximity to the 800 Franklin property and that indicated ground-water flow direction was to the west, away from the 800 Franklin Street site. It is unknown what impact (temporary or permanent) the pumping at Renaissance Plaza may have had on the direction of ground water flow at the Shell site.

A copy of this final Phase II report has been forwarded with the owner's approval for review by ACHCSA and the RWQCB.

WARRANTY

Miller Environmental Company warrants all services to be of high professional quality. No other warranty, either expressed or implied, as to the quality or result to be achieved as a consequence of this work, is made.
This report provides an assessment of the potential problems noted and represents professional opinion. All reports and recommendations are based upon conditions and information made available to Miller Environmental Company to date. Liability is not assumed in cases where the client or other

parties involved have failed to disclose known environmental information. Reports do not purport to identify all problems or to indicate that other hazards do not exist. No responsibility is assumed for the control or correction of conditions or practices existing at the premises of the client. Data available from future subsurface exploration may modify the conclusions and recommendations of this report.

APPENDIX A

Permits

AUG 20 1991

MILLER ENVIRONMENTAL CO.

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

CATION OF PROJECT 600 Franklin St
Oakland, CA

IENT
me Tom Chiu
dress 812 6th Avenue Phone 834-0300
ty Oakland CA Zip 94606

PLICANT
me Reinhard Ruhmke
Miller Environmental Company
dress 385 Pittsburg Ave Phone 233-9068
ty Richmond, CA Zip 94801

PE OF PROJECT

ll Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	X
Monitoring	X	Well Destruction	___

OPOSED WATER SUPPLY WELL USE
mestic ___ Industrial ___ Other ___
nicipal ___ Irrigation ___

ILLING METHOD:
d Rotary ___ Air Rotary ___ Auger X
ble ___ Other ___

ILLER'S LICENSE NO. 604987

LL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 3

OTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 8 in. Depth 25 ft.

TIMATED STARTING DATE 8/19/91
TIMATED COMPLETION DATE 8/23/91

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

PPLICANT'S IGNATURE Reinhard Ruhmke Date 08/17/91

FOR OFFICE USE

PERMIT NUMBER 91462
LOCATION NUMBER ___

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. 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.

Approved Wyman Hong Date 15 Aug 91
Wyman Hong

121989

NET Pacific, Inc

Client No: 788
Client Name: Miller Environmental
NET Log No: 1235

Date: 10-25-91

Page: 2

Ref: CHIU Property, Job: 90-1008

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results B2-5 10-02-91 99702	B2-10 10-02-91 99703	Units
Oil & Grease(Total)	EPA9071	50	ND	ND	mg/Kg
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-14-91	10-14-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-14-91	10-14-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			10-09-91	10-09-91	
DATE ANALYZED			10-17-91	10-17-91	
METHOD GC FID/3550			--	--	
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

NET Pacific, Inc

Client No: 788
Client Name: Miller Environmental
NET Log No: 1235

Date: 10-25-91

Page: 3

Ref: CHIU Property, Job: 90-1008

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results B2-15 10-02-91 99704	 B2-20 10-02-91 99705	Units
Oil & Grease(Total)	EPA9071	50	ND	ND	mg/Kg
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-14-91	10-14-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-14-91	10-14-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			10-09-91	10-09-91	
DATE ANALYZED			10-17-91	10-17-91	
METHOD GC FID/3550			--	--	
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

NET Pacific, Inc

Client No: 788
Client Name: Miller Environmental
NET Log No: 1235

Date: 10-25-91

Page: 4

Ref: CHIU Property, Job: 90-1008

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results B2-25 10-02-91 99706	MW4-5 10-02-91 99707	Units
Oil & Grease(Total)	EPA9071	50	ND	ND	mg/Kg
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			50	1	
DATE ANALYZED			10-14-91	10-14-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	120	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			10	1	
DATE ANALYZED			10-15-91	10-14-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	310	ND	ug/Kg
Toluene		2.5	210	ND	ug/Kg
Xylenes, total		2.5	600	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			5	1	
DATE EXTRACTED			10-09-91	10-09-91	
DATE ANALYZED			10-17-91	10-17-91	
METHOD GC FID/3550			--	--	
as Diesel		1	83	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

NET Pacific, Inc

Client No: 788
Client Name: Miller Environmental
NET Log No: 1235

Date: 10-25-91

Ref: CHIU Property, Job: 90-1008

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW4-10 10-02-91 99708	 MW4-15 10-02-91 99709	Units
Oil & Grease(Total)	EPA9071	50	ND	ND	mg/Kg
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-14-91	10-14-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-14-91	10-14-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			10-09-91	10-09-91	
DATE ANALYZED			10-17-91	10-17-91	
METHOD GC FID/3550			--	--	
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

			Descriptor, Lab No. and Results		
			MW4-20 10-02-91	MW4-25 10-02-91	
Parameter	Method	Reporting Limit	99710	99711	Units
Oil & Grease(Total)	EPA9071	50	ND	ND	mg/Kg
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-15-91	10-14-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-15-91	10-14-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			10-09-91	10-09-91	
DATE ANALYZED			10-17-91	10-17-91	
METHOD GC FID/3550			--	--	
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW5-5 10-03-91 99712	 MW5-10 10-03-91 99713	Units
Oil & Grease(Total)	EPA9071	50	ND	ND	mg/Kg
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-15-91	10-14-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-15-91	10-14-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			10-09-91	10-09-91	
DATE ANALYZED			10-17-91	10-17-91	
METHOD GC FID/3550			--	--	
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW5-15 10-03-91 99714	 MW5-20 10-03-91 99715	Units
Oil & Grease(Total)	EPA9071	50	ND	ND	mg/Kg
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-14-91	10-14-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-14-91	10-14-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			10-09-91	10-09-91	
DATE ANALYZED			10-17-91	10-17-91	
METHOD GC FID/3550			--	--	
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

			Descriptor, Lab No. and Results	
			MW5-25	
			10-03-91	
Parameter	Method	Reporting Limit	99716	Units
Oil & Grease(Total)	EPA9071	50	ND	mg/Kg
PETROLEUM HYDROCARBONS			--	
VOLATILE (SOIL)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			10-14-91	
METHOD GC FID/5030			--	
as Gasoline		1	ND	mg/Kg
METHOD 8020			--	
DILUTION FACTOR *			1	
DATE ANALYZED			10-14-91	
Benzene		2.5	ND	ug/Kg
Ethylbenzene		2.5	ND	ug/Kg
Toluene		2.5	ND	ug/Kg
Xylenes, total		2.5	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	
EXTRACTABLE (SOIL)			--	
DILUTION FACTOR *			1	
DATE EXTRACTED			10-09-91	
DATE ANALYZED			10-17-91	
METHOD GC FID/3550			--	
as Diesel		1	ND	mg/Kg
as Motor Oil		10	ND	mg/Kg

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Gasoline	1	mg/Kg	98	ND	100	96	4.7
Benzene	2.5	ug/Kg	80	ND	85	86	1.5
Toluene	2.5	ug/Kg	85	ND	84	83	< 1

COMMENT: Blank Results were ND on other analytes tested.

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	1	mg/Kg	106	ND	79	83	4.9
Motor Oil	10	mg/Kg	101	ND	N/A	N/A	N/A

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
O & G(Total)	50	mg/Kg	111	ND	98	100	1.8
O & G(Total)	50	mg/Kg	104	ND	102	110	7.5

?0 2 (REV 6-90)

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

EXC 150.00
App Fee 30.00
180.00

LOCATION OF WORK: 800 Franklin (Street or Address) BETWEEN Webster (Street/Ave.) AND Broadway (Specify)

PERMISSION TO EXCAVATE IN THE PUBLIC RIGHT-OF-WAY IS HEREBY GRANTED TO:

APPLICANT HEW drilling

ADDRESS P.O. Box 1116 Palo Alto PHONE #: 415 322 2551

TYPE OF WORK: GAS____ ELECTRIC____ WATER____ TELEPHONE____ CABLE TV____ SEWER____ OTHER X (Specify)

NATURE OF WORK: Installation of groundwater monitoring wells

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to it's issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law Chapter 9 (commencing with Sec 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

☐ I, as owner of the property, 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 # PC 499565 Company Name HEW

☐ Certified copy is hereby furnished

☒ Certified copy is filed with the city building inspection dept

Signature [signature] Date 9/6/91

(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 [signature] Date 9/6/91

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 imply with such provisions or this permit shall be deemed revoked

---

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

Approximate Starting Date	DATE	9/11/91		
Approximate Completion Date	DATE	10/11/91		
HOLIDAY RESTRICTION (1 NOV — 1 JAN)	YES	✓	NO	
LIMITED OPERATION AREA (7AM - 9AM / 4PM - 6PM)	YES	✓	NO	
DATE STREET LAST RESURFACED	DATE	87		
SPECIAL PAVING DETAIL REQUIRED	YES		NO	X

24-HOUR EMERGENCY PHONE NUMBER 415 327 4066

PERMIT NOT VALID WITHOUT 24 HOUR NUMBER.

Telephone 273-3668 Forty-eight (48) HOURS BEFORE ACTUAL CONSTRUCTION.

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 uness applicant has secured an inquiry identification number issued by Underground Service Alert

Call Toll Free: 800-642-2444 USA ID Number 269119

This permit issued pursuant to all provisions of Chapter 6, 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 actions 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 609187 CITY BUSINESS TAX # 53591

X [signature] Date 9/6/91

Signature of Contractor Owner or Agent

☒ Agent for ☒ Contractor ☐ Owner

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 ______

APPROVED		Date
Engineering Services	[signature]	9-13-91
Planning		
Field Services		
Construction		
Traffic Engineering		
Electrical Engineering		

DIRECTOR OF PUBLIC WORKS

APPROVED BY: [signature]

DATE: 9-13-91

EXTENSION GRANTED BY: ______

DATE: ______

350 2 (REV 6/90)

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

EXC 150.00
Inspec 30.00
180.00
ARFI 30.00
CERTI 190.00
X 1138 180.00

LOCATION OF WORK: 800 Franklin (Street or Address) BETWEEN Webster (Street/Ave.) AND Broadway (Specify)

PERMISSION TO EXCAVATE IN THE PUBLIC RIGHT-OF-WAY IS HEREBY GRANTED TO:

APPLICANT HEW Drilling

ADDRESS PO Box 1110, Palo Alto PHONE #: 415-322-2851

TYPE OF WORK: GAS____ ELECTRIC____ WATER____ TELEPHONE____ CABLE TV____ SEWER____ OTHER X (Specify)

NATURE OF WORK: Installation of groundwater monitoring wells

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5. Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to it's issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500).

☐ I, as owner of the property, 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 ______

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

Approximate Starting Date	DATE 9/11/91	
Approximate Completion Date	DATE 10/11/91	
HOLIDAY RESTRICTION (1 NOV — 1 JAN)	YES ✓	NO ____
LIMITED OPERATION AREA (7AM – 9AM / 4PM – 6PM)	YES ✓	NO ____
DATE STREET LAST RESURFACED	DATE '84	
SPECIAL PAVING DETAIL REQUIRED	YES ____	NO X

24-HOUR EMERGENCY PHONE NUMBER 415-322-1000
PERMIT NOT VALID WITHOUT 24 HOUR NUMBER.

Telephone 273-3668 Forty-eight (48) HOURS BEFORE ACTUAL CONSTRUCTION.

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 uness applicant has secured an inquiry identification number issued by Underground Service Alert

Call Toll Free. 800-642-2444 USA ID Number 27111

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 # PC91556 Company Name HCW

☐ Certified copy is hereby furnished.

☐ Certified copy is filed with the city building inspection dept

Signature [signature] Date 9/10/91

(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 [signature] Date 9/10/91

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

This permit issued pursuant to all provisions of Chapter 6, 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 actions 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/C 1953 CITY BUSINESS TAX # 53836

X [signature] Date 9/10/91
Signature of Contractor Owner or Agent

☐ Agent for ☑ Contractor ☐ Owner

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 ______

APPROVED

		Date
Engineering Services	[signature]	9-10-91
Planning		
Field Services		
Construction		
Traffic Engineering		
Electrical Engineering		

DIRECTOR OF PUBLIC WORKS

APPROVED BY: [signature]

DATE: [illegible]

EXTENSION GRANTED BY: ______

DATE: ______

Address: 800 Franklin Street

MINOR ENCROACHMENT PERMIT AND AGREEMENT

Chen-Tso Chiu and Yu-Hua Chiu, owners of that real property commonly known as 800 Franklin Street are hereby granted a conditional revocable permit to encroach into the street area of Franklin Street and Eighth Steet with three monitoring wells. The locations of said encroachment and the type of casting and cover used shall be as delineated in Exhibits "A" and "B" attached hereto and made a part hereof.

The permittees agree to comply with and be bound by the conditions for granting an Encroachment Permit attached hereto and made a part hereof.

This agreement shall be binding upon the undersigned, the present owners of the property described above, and their successors in interest thereof.

In witness whereof we have set our signatures this 9th day of April, 1991.

By: Chen-Tso Chiu
Chen-Tso Chiu
Owner

By: Yu-Hua Chiu
Yu-Hua Chiu
Owner

Dated 4-9-91

By: _____
RANDALL A. LUM

STATE OF CALIFORNIA }
COUNTY OF San Francisco } ss.:

On April 9, 1991 before me, Yim Keung Lee a notary public, personally appeared Chen-Tso Chiu and Yu-Hua Chiu

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he, she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

OFFICIAL SEAL
YIM KEUNG LEE
NOTARY PUBLIC - CALIFORNIA
CITY & COUNTY OF SAN FRANCISCO
My Comm. Expires May 20, 1994

WITNESS my hand and official seal.

Yim Lee
Notary Public

APPENDIX B

Boring Logs

BORING LOG

PROJECT NO: 90-1008	PROJECT NAME: CHIU	BORING NO: B1
LOCATION: 800 FRANKLIN ST., OAKLAND, CA		DATE: 09/11/91
GEOLOGIST: REINHARD RUHMKE		PAGE 1 OF 1
GROUND WATER DEPTH: 25 FEET		DRILLER: HEW
DRILLING METHODS: HOLLOW-STEM AUGER		

DEPTH	SAMPLE	RECOVERY	BLOWS	DESCRIPTION	USCS	GRAPHIC SYMBOL	WELL CONSTRUCTION
0				8 INCHES CONCRETE			
5	B1-5	18"	10 13 16	LIGHT BROWN FINE SAND; LOOSE; DRY.	SP		
10	B1-10	18"	9 11 11	GRAYISH-GREEN FINE SAND; LOOSE; DRY; ODOR.	SP		
15	B1-15	18"	6 10 14				
20	B1-20	18"	7 13 18	OLIVE-GRAY BROWN FINE SAND; MOTTLED; ODOR; DRY.	SP		
25	B1-25	18"	7 21 28	DARK GRAY FINE SAND; WET; ODOR; END OF BORING.			
30							

REMARKS

BOREHOLE WAS BACKFILLED WITH NEAT CEMENT

MILLER ENVIRONMENTAL COMPANY
RICHMOND, CA

BORING LOG

PROJECT NO: 90-1008	PROJECT NAME: CHIU	BORING NO: B2
LOCATION: 800 FRANKLIN ST., OAKLAND, CA		DATE: 10/02/91
GEOLOGIST: REINHARD RUHMKE		PAGE 1 OF 1
GROUND WATER DEPTH: 26 FEET		DRILLER: HEW
DRILLING METHODS: HOLLOW-STEM AUGER		

DEPTH	SAMPLE	RECOVERY	BLOWS	DESCRIPTION	USCS	GRAPHIC SYMBOL	WELL CONSTRUCTION
0				8 INCHES CONCRETE			
1–4				LIGHT BROWN FINE SAND; LOOSE; DRY.			
5	B2-5	18"	7 11 14	A LITTLE CLAY.	SP		
6–9				NO CLAY.			
10	B2-10	14"	10 12 15	BROWN FINE SAND; LOOSE; DRY.			
11–14					SP		
15	B2-15	4"	6 12 14	MOIST			
16–19							
20	B2-20	18"	14 18 19	OLIVE-GRAY FINE SAND; SLIGHT ODOR; DRY	SP		
21–24							
25	B2-25	2"	7 7 10	DARK GRAY FINE SAND; WET; ODOR; END OF BORING			
26–30							

REMARKS

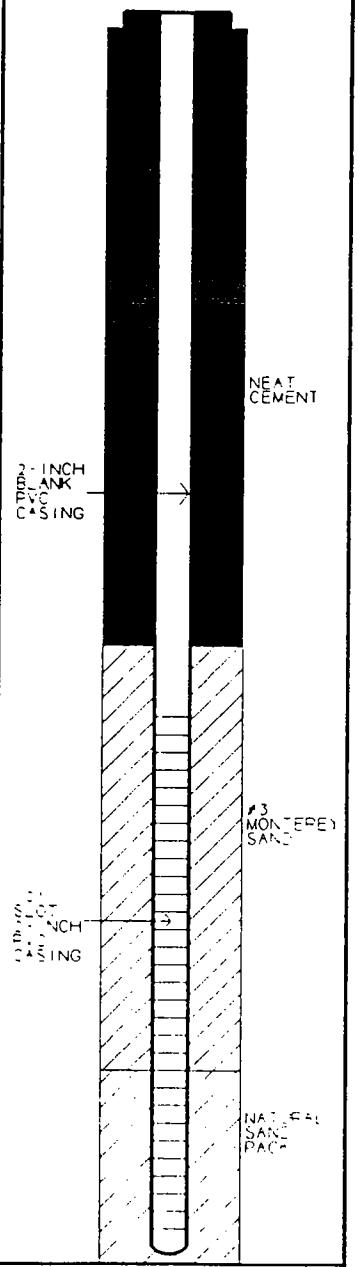
BOREHOLE WAS BACKFILLED WITH NEAT CEMENT

MILLER ENVIRONMENTAL COMPANY
RICHMOND, CA

BORING LOG

PROJECT NO: 90-1008	PROJECT NAME: CHIU	BORING NO: MW4
LOCATION: 800 FRANKLIN ST., OAKLAND, CA		DATE: 10/02/91
GEOLOGIST: REINHARD RUHMKE		PAGE 1 OF 1
GROUND WATER DEPTH: 25 FEET		DRILLER: HEW
DRILLING METHODS: HOLLOW-STEM AUGER		

DEPTH	SAMPLE	RECOVERY	BLOWS	DESCRIPTION	USCS	GRAPHIC SYMBOL	WELL CONSTRUCTION
0				8 INCHES CONCRETE			
5	MW4-5	18"	4 4 5	BROWN FINE SAND; LOOSE; DRY.	SP		
10	MW4-10	14"	12 15 16				
15	MW4-15	14"	5 6 9				
20	MW4-20	12"	12 18 21	GRAY FINE SAND; LOOSE; DRY; ODOR	SP		
25	MW4-25		13 24 25	WET			
35				END OF BORING	SP		



REMARKS

A NATURAL FILTER PACK WAS GENERATED DUE TO FLOWING SANDS

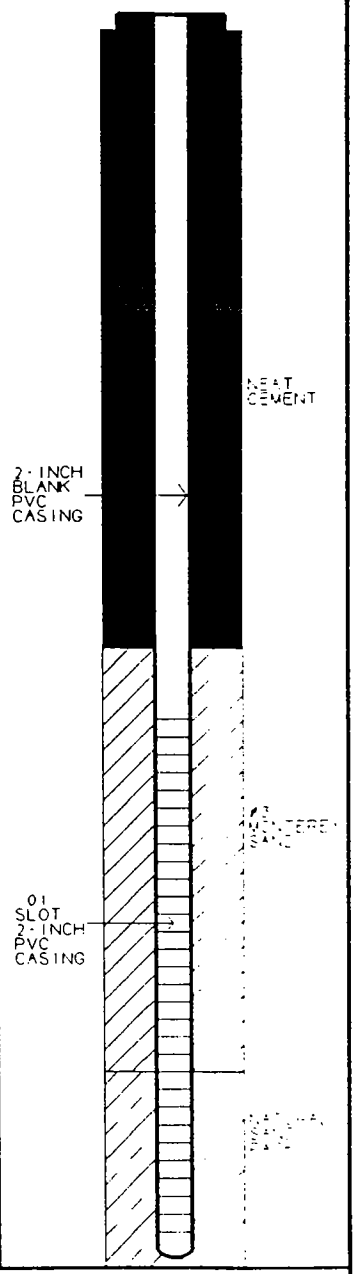
MILLER ENVIRONMENTAL COMPANY
RICHMOND, CA

BORING LOG

PROJECT NO:90-1008	PROJECT NAME: CHIU	BORING NO:MW5
LOCATION:800 FRANKLIN ST., OAKLAND, CA		DATE:10/03/91
GEOLOGIST:REINHARD RUHMKE		PAGE 1 OF 1
GROUND WATER DEPTH: 26 FEET		DRILLER:HEW
DRILLING METHODS:HOLLOW-STEM AUGER		

DEPTH	SAMPLE	RECOVERY	BLOWS	DESCRIPTION	USCS	GRAPHIC SYMBOL
0				8 INCHES CONCRETE		
5	MW5-5	10"	12 12 13	RUSTY BROWN SILTY FINE SAND: LOOSE;DRY	SP	
10	MW5-10	18"	10 12 14	A LITTLE CLAY		
				NO CLAY OR SILT		
15	MW5-15	18"	5 8 11			
20	MW5-20	18"	13 19 23	A LITTLE CLAY	SP	
				NO CLAY		
25	MW5-25	18"	12 19 34	WET		
30					SP	
35				END OF BORING		

WELL CONSTRUCTION



REMARKS

A NATURAL FILTER PACK WAS GENERATED DUE TO FLOWING SANDS

MILLER ENVIRONMENTAL COMPANY
RICHMOND, CA

APPENDIX C

Laboratory Reports and Chain of Custody forms

ENVIRONMENTAL AND INDUSTRIAL HYGIENE SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245
FAX (707) 763-4065

Reinhard Ruhmke
Miller Environmental Co.
Environmental Engineering
385 Pittsburg Ave
Richmond, CA 94801

Client Code: MIEC1
Survey # CHIU PROPERTY
Project/Release # 90-1008

THIS IS A REVISED REPORT 12/26/91

L A B O R A T O R Y R E S U L T S

Date Collected: 09/11/91
Date Extracted: 09/19/91
Date Analyzed: 09/22/91

Laboratory Job No.: 914858
Date Received: 09/12/91
Date Reported: 09/26/91

ASSAY: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)
MATRIX: SOIL

LABNO	SMPLNO-ID	TRPH mg/kg	DET. LIM. mg/kg
32917	B1-5	ND	20
32918	B1-10	ND	20
32919	B1-15	ND	20
32920	B1-20	ND	20
32921	B1-25	190	20
32922	MB	ND	20
32923	MBS	870	20
32924	MX	ND	20
32925	MS	860	20
32926	MSD	860	20

NOTE: MBS, MS AND MSD WERE SPIKED AT 830 mg/kg.

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

ENVIRONMENTAL AND INDUSTRIAL HYGIENE SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245
FAX (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/11/91
Date Extracted: 09/16/91
Date Analyzed: 09/17/91

Laboratory Job No.: 914858
Date Received: 09/12/91
Date Reported: 09/26/91

ASSAY: TPH/DIESEL (EPA 8015)
MATRIX: SOIL

LAB NUMBER	SAMPLE NUMBER	RESULTS mg/kg	DET.LIM. mg/kg
32917	B1-5 DIESEL	ND	5.0
32918	B1-10 DIESEL	ND	5.0
32919	B1-15 DIESEL	ND	5.0
32920	B1-20 DIESEL	ND	5.0
32921	B1-25 DIESEL	160	5.0
32922	MB DIESEL	ND	5.0
32923	MBS DIESEL	54	5.0
32924	MX DIESEL	ND	5.0
32925	MS DIESEL	54	5.0

ENVIRONMENTAL AND
INDUSTRIAL HYGIENE SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245
FAX (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 914858

LAB NUMBER	SAMPLE NUMBER	RESULTS mg/kg	DET.LIM. mg/kg
32926	MSD DIESEL	73	5.0

NOTE: MBS, MS AND MSD WERE SPIKED AT 55 mg/kg.

ENVIRONMENTAL AND INDUSTRIAL HYGIENE SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245
FAX (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/11/91
Date Extracted: 09/17/91
Date Analyzed: 09/17/91

Laboratory Job No.: 914858
Date Received: 09/12/91
Date Reported: 09/26/91

ASSAY: TPH/GASOLINE (EPA 5030/MOD.8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS mg/kg	DET. LIM. mg/kg
32917	B1-5 GASOLINE	ND	0.20
32918	B1-10 GASOLINE	ND	0.20
32919	B1-15 GASOLINE	ND	0.20
32920	B1-20 GASOLINE	ND	0.20
32921	B1-25 * GASOLINE	2900	1000
32922	MB GASOLINE	ND	0.20
32923	MBS GASOLINE	1.1	0.20
32924	MX GASOLINE	ND	0.20

ENVIRONMENTAL AND INDUSTRIAL HYGIENE SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245
FAX (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 914858

ASSAY: TPH/GASOLINE (EPA 5030/MOD.8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS mg/kg	DET. LIM. mg/kg
32925 MS		
GASOLINE	1.1	0.20
32926 MSD		
GASOLINE	1.1	0.20

NOTE: MBS, MS AND MSD WERE SPIKED AT 1.0 mg/kg.

* SAMPLE CHROMATOGRAM FOR SAMPLE ID R1-25 WAS NOT REPRESENTATIVE OF A GASOLINE PATTERN.

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FAX (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/11/91
Date Extracted: 09/17/91
Date Analyzed: 09/17/91

Laboratory Job No.: 914858
Date Received: 09/12/91
Date Reported: 09/26/91

ASSAY: BTEX (EPA 5030/8020)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS mg/kg	DET. LIM. mg/kg
32917 B1-5		
BENZENE	ND	0.0050
TOLUENE	ND	0.0050
ETHYLBENZENE	ND	0.0050
XYLENES	ND	0.0050
32918 B1-10		
BENZENE	ND	0.0050
TOLUENE	ND	0.0050
ETHYLBENZENE	ND	0.0050
XYLENES	ND	0.0050
32919 B1-15		
BENZENE	ND	0.0050
TOLUENE	ND	0.0050
ETHYLBENZENE	ND	0.0050
XYLENES	ND	0.0050
32920 B1-20		
BENZENE	ND	0.0050
TOLUENE	ND	0.0050
ETHYLBENZENE	ND	0.0050
XYLENES	ND	0.0050

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FAX (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 914858

ASSAY: BTEX (EPA 5030/8020)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS mg/kg	DET. LIM. mg/kg
32921 B1-25		
BENZENE	ND	25
TOLUENE	60	25
ETHYLBENZENE	ND	25
XYLENES	ND	25
32922 MB		
BENZENE	ND	0.0050
TOLUENE	ND	0.0050
ETHYLBENZENE	ND	0.0050
XYLENES	ND	0.0050
32923 MBS		
BENZENE	0.011	0.0050
TOLUENE	0.011	0.0050
ETHYLBENZENE	0.011	0.0050
XYLENES	0.031	0.0050
32924 MX		
BENZENE	ND	0.0050
TOLUENE	ND	0.0050
ETHYLBENZENE	ND	0.0050
XYLENES	ND	0.0050
32925 MS		
BENZENE	0.011	0.0050
TOLUENE	0.0099	0.0050
ETHYLBENZENE	0.0093	0.0050
XYLENES	0.029	0.0050

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FAX (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 914858

ASSAY: BTEX (EPA 5030/8020)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS mg/kg	DET. LIM. mg/kg
32926 MSD		
BENZENE	0.010	0.0050
TOLUENE	0.0094	0.0050
ETHYLBENZENE	0.0087	0.0050
XYLENES	0.027	0.0050

NOTE: MBS, MS AND MSD WERE SPIKED AT 0.010 mg/kg FOR ALL ANALYTES EXCEPT FOR XYLENES WHICH WERE SPIKED AT 0.030 mg/kg.

Highway, Petaluma, CA 94952
124, Petaluma, CA, 94975-8024
(707) 763-8245 FAX: (707) 763-4065

RECEIVED
D&M LABORATORIES
SEP 12 AM 8 51

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Name Miller Environmental Company Phone 510-233-9068
ess 385 Pittsburg Ave
State, Zip Richmond, CA 94801
ient's or Representative's Signature Bernhard Ruhnke
gnature authorizes the work and terms listed below)

ll samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails pick up samples.

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	TPH gas-BTEX	TPH diesel	TRPH	REMARKS	LAB USE ONLY LAB NO.
10-1008	Chiu Property					NTAT	
SAMPLERS (Signature)	Bernhard Ruhnke						

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION								
~~BH~~													
B1-5	9/11			X	5 feet	1	X	X	X				
B1-10	↓			↓	10 "	1	X	X	X				
B1-15					15 "	1	X	X	X				
B1-20					20 "	1	X	X	X				
B1-25	↓			↓	25 "	1	X	X	X				

Relinquished by (Signature)	DATE	TIME	Received by (Signature)	General Remarks
Bernhard Ruhnke				
Relinquished by (Signature)	DATE	TIME	Received by (Signature)	
Relinquished by (Signature)	DATE	TIME	Received by (Signature)	

LAB COPY

NATIONAL
ENVIRONMENTAL
TESTING, INC.

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

Reinhard Ruhmke
Miller Environmental
385 Pittsburg Ave.
Richmond, CA 94801

Date: 10-25-91
NET Client Acct No: 788
NET Pacific Log No: 1235
Received: 10-04-91 0800

Client Reference Information

CHIU Property, Job: 90-1008

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

Approved by:

Jules Skamarack
Laboratory Manager

JS:rct
Enclosure(s)

NET Pacific, Inc

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

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

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

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Sample Analysis Request / Chain of C...

MILLER ENVIRONMENTAL COMPANY, INC.
Engineering Geology Construction
385 Pittsburg Avenue, Richmond, CA 94801
Tel: 415-233-8088 Fax: 415-233-2508 CA License A-592360

JOB NAME: CHIU Property

JOB NUMBER: 90-1008

P.O. Number:

Samplers: Reinhard Mulinski

Sample I.D.	Date	Time	Comp.	Grab	Location	No. of Containers	Matrix	ANALYSES: TPH as Gasoline	BTXE	TPH as Diesel	Total Lead			Turn Around Time
B2-5	10/3/91			X	5 feet	1	Soil	X	X	X	X			normal
B2-10				X	10 "	1		X	X	X	X			
B2-15				X	15 "	1		X	X	X	X			
B2-20				X	20 "	1		X	X	X	X			
B2-25				X	25 "	1		X	X	X	X			
MW4-5				X	5 "	1		X	X	X	X			
MW4-10				X	10 "	1		X	X	X	X			
MW4-15				X	15 "	1		X	X	X	X			
MW4-20				X	20 "	1		X	X	X	X			
MW4-25				X	25 "	1		X	X	X	X			

CUSTODY SEALED 10/3/91 @ 1900 - Miller residence

Relinquished By (signature)	Date	Time	Accepted By (Signature
1 Reinhard Mulinski	10/3/91	2:00	1 Mike Tamsui
2 Mike Tamsui	10/3/91		2
3 (VIA FAX)	10/4/91	0800	3 Kemple

Laboratory Name & Address: NET

REMARKS:

Sample Analysis Request/Chain of Cu

MILLER ENVIRONMENTAL COMPANY, INC.
Engineering Geology Construction
385 Pittsburg Avenue, Richmond, CA 94801
Tel: 415-233-9088 Fax: 415-233-2508 CA License A-582380

JOB NAME: Chiu Property
JOB NUMBER: 90-1008
P.O. Number:

Samplers:

Sample I.D.	Date	Time	Comp.	Grab	Location	No. of Containers	Matrix	TPH as Gasoline	BTXE	TPH as Diesel	Total Oil + Grease			Turn Around Time
MWS-5	10/3/91			X	5 feet	1	Soil	X	X	X	X			normal
MWS-10				X	10 "	1		X	X	X	X			
MWS-15				X	15 "	1		X	X	X	X			
MWS-20				X	20 "	1		X	X	X	X			
MWS-25				X	25 "	1		X	X	X	X			

CUSTODY SEALED 10/3/91 @ 1400 [illegible]

Relinquished By (signature)	Date	Time	Accepted By (Signature
1 [signature]	10/3/91	2:00	1 [signature]
2 [signature]	10/3/91		2
3 (VIA UPS)	10/4/91	0900	3 [signature]

Laboratory Name & Address:
NET

REMARKS:

NATIONAL
ENVIRONMENTAL
TESTING, INC.

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

Reinhard Ruhmke
Miller Environmental
385 Pittsburg Ave.
Richmond, CA 94801

Date: 11/25/1991
NET Client Acct. No: 78800
NET Pacific Log No: 91.0449
Received: 11/02/1991

Client Reference Information

Alex Shaw, Job: 90-1008

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

Approved by:

Jules Skamarack
Laboratory Manager

Enclosure(s)

NET Pacific, Inc

Client Acct: 78800
Client Name: Miller Environmental
NET Log No: 91.0449

Date: 11/25/1991
Page: 2

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: MW-1
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104004)

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease (Total)		5	ND	mg/L
TPH (Gas/BTXE,Liquid)				
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			11-11-91	
DILUTION FACTOR*			1	
as Gasoline		0.05	0.63	mg/L
METHOD 8020 (GC,Liquid)			--	
DATE ANALYZED			11-11-91	
DILUTION FACTOR*			1	
Benzene		0.5	3.2	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes (Total)		0.5	130	ug/L
METHOD 3510 (GC,FID)				
DILUTION FACTOR*			1	
DATE EXTRACTED			11-07-91	
DATE ANALYZED			11-12-91	
as Diesel		0.05	0.96	mg/L
as Motor Oil		0.5	1.7	mg/L

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: MW-1
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104004)

Parameter	Method	Reporting Limit	Results	Units
METHOD 601 (GC,Liquid)				
DATE ANALYZED			11-13-91	
DILUTION FACTOR*			1	
Bromodichloromethane		0.4	ND	ug/L
Bromoform		0.4	ND	ug/L
Bromomethane		0.4	ND	ug/L
Carbon tetrachloride		0.4	ND	ug/L
Chlorobenzene		0.4	ND	ug/L
Chloroethane		0.4	ND	ug/L
2-Chloroethylvinyl ether		1.0	ND	ug/L
Chloroform		0.4	ND	ug/L
Chloromethane		0.4	ND	ug/L
Dibromochloromethane		0.4	ND	ug/L
1,2-Dichlorobenzene		0.4	ND	ug/L
1,3-Dichlorobenzene		0.4	ND	ug/L
1,4-Dichlorobenzene		0.4	ND	ug/L
Dichlorodifluoromethane		0.4	ND	ug/L
1,1-Dichloroethane		0.4	ND	ug/L
1,2-Dichloroethane		0.4	9.8	ug/L
1,1-Dichloroethene		0.4	ND	ug/L
trans-1,2-Dichloroethene		0.4	ND	ug/L
1,2-Dichloropropane		0.4	ND	ug/L
cis-1,3-Dichloropropene		0.4	ND	ug/L
trans-1,3-Dichloropropene		0.4	ND	ug/L
Methylene chloride		10	ND	ug/L
1,1,2,2-Tetrachloroethane		0.4	ND	ug/L
Tetrachloroethene		0.4	ND	ug/L
1,1,1-Trichloroethane		2.0	ND	ug/L
1,1,2-Trichloroethane		1	ND	ug/L
Trichloroethene		2.0	ND	ug/L
Trichlorofluoromethane		2.0	ND	ug/L
Vinyl chloride		2.0	ND	ug/L

NET Pacific, Inc

Client Acct: 78800
Client Name: Miller Environmental
NET Log No: 91.0449

Date: 11/25/1991
Page: 4

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: MW-2
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104005)

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease (Total)		5	ND	mg/L
TPH (Gas/BTXE,Liquid)				
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			11-11-91	
DILUTION FACTOR*			10	
as Gasoline		0.05	10	mg/L
METHOD 8020 (GC,Liquid)			--	
DATE ANALYZED			11-11-91	
DILUTION FACTOR*			100	
Benzene		0.5	1,800	ug/L
Ethylbenzene		0.5	270	ug/L
Toluene		0.5	1,200	ug/L
Xylenes (Total)		0.5	960	ug/L
METHOD 3510 (GC,FID)				
DILUTION FACTOR*			1	
DATE EXTRACTED			11-07-91	
DATE ANALYZED			11-12-91	
as Diesel		0.05	1.5	mg/L
as Motor Oil		0.5	ND	mg/L

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: MW-2
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104005)

Parameter	Method	Reporting Limit	Results	Units
METHOD 601 (GC,Liquid)				
DATE ANALYZED			11-13-91	
DILUTION FACTOR*			1	
Bromodichloromethane		0.4	ND	ug/L
Bromoform		0.4	ND	ug/L
Bromomethane		0.4	ND	ug/L
Carbon tetrachloride		0.4	ND	ug/L
Chlorobenzene		0.4	ND	ug/L
Chloroethane		0.4	ND	ug/L
2-Chloroethylvinyl ether		1.0	ND	ug/L
Chloroform		0.4	ND	ug/L
Chloromethane		0.4	ND	ug/L
Dibromochloromethane		0.4	ND	ug/L
1,2-Dichlorobenzene		0.4	ND	ug/L
1,3-Dichlorobenzene		0.4	ND	ug/L
1,4-Dichlorobenzene		0.4	ND	ug/L
Dichlorodifluoromethane		0.4	ND	ug/L
1,1-Dichloroethane		0.4	ND	ug/L
1,2-Dichloroethane		0.4	170	ug/L
1,1-Dichloroethene		0.4	ND	ug/L
trans-1,2-Dichloroethene		0.4	ND	ug/L
1,2-Dichloropropane		0.4	ND	ug/L
cis-1,3-Dichloropropene		0.4	ND	ug/L
trans-1,3-Dichloropropene		0.4	ND	ug/L
Methylene chloride		10	ND	ug/L
1,1,2,2-Tetrachloroethane		0.4	ND	ug/L
Tetrachloroethene		0.4	ND	ug/L
1,1,1-Trichloroethane		2.0	ND	ug/L
1,1,2-Trichloroethane		1	ND	ug/L
Trichloroethene		2.0	ND	ug/L
Trichlorofluoromethane		2.0	ND	ug/L
Vinyl chloride		2.0	ND	ug/L

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: MW-3
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104006)

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease (Total)		5	ND	mg/L
TPH (Gas/BTXE,Liquid)				
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			11-12-91	
DILUTION FACTOR*			1,000	
as Gasoline		0.05	310	mg/L
METHOD 8020 (GC,Liquid)			--	
DATE ANALYZED			11-12-91	
DILUTION FACTOR*			1,000	
Benzene		0.5	9,300	ug/L
Ethylbenzene		0.5	5,600	ug/L
Toluene		0.5	25,000	ug/L
Xylenes (Total)		0.5	27,000	ug/L
METHOD 3510 (GC,FID)				
DILUTION FACTOR*			20	
DATE EXTRACTED			11-07-91	
DATE ANALYZED			11-12-91	
as Diesel		0.05	25	mg/L
as Motor Oil		0.5	ND	mg/L

NET Pacific, Inc

Client Acct: 78800
Client Name: Miller Environmental
NET Log No: 91.0449

Date: 11/25/1991
Page: 7

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: MW-3
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104006)

Parameter	Method	Reporting Limit	Results	Units
METHOD 601 (GC,Liquid)				
DATE ANALYZED			11-13-91	
DILUTION FACTOR*			1	
Bromodichloromethane		0.4	ND	ug/L
Bromoform		0.4	ND	ug/L
Bromomethane		0.4	ND	ug/L
Carbon tetrachloride		0.4	ND	ug/L
Chlorobenzene		0.4	ND	ug/L
Chloroethane		0.4	ND	ug/L
2-Chloroethylvinyl ether		1.0	ND	ug/L
Chloroform		0.4	ND	ug/L
Chloromethane		0.4	ND	ug/L
Dibromochloromethane		0.4	ND	ug/L
1,2-Dichlorobenzene		0.4	ND	ug/L
1,3-Dichlorobenzene		0.4	ND	ug/L
1,4-Dichlorobenzene		0.4	ND	ug/L
Dichlorodifluoromethane		0.4	ND	ug/L
1,1-Dichloroethane		0.4	ND	ug/L
1,2-Dichloroethane		0.4	58	ug/L
1,1-Dichloroethene		0.4	ND	ug/L
trans-1,2-Dichloroethene		0.4	ND	ug/L
1,2-Dichloropropane		0.4	0.68	ug/L
cis-1,3-Dichloropropene		0.4	ND	ug/L
trans-1,3-Dichloropropene		0.4	ND	ug/L
Methylene chloride		10	ND	ug/L
1,1,2,2-Tetrachloroethane		0.4	ND	ug/L
Tetrachloroethene		0.4	ND	ug/L
1,1,1-Trichloroethane		0.4	1.4	ug/L
1,1,2-Trichloroethane		1	ND	ug/L
Trichloroethene		2.0	ND	ug/L
Trichlorofluoromethane		2.0	ND	ug/L
Vinyl chloride		2.0	ND	ug/L

NET Pacific, Inc

Client Acct: 78800
Client Name: Miller Environmental
NET Log No: 91.0449

Date: 11/25/1991
Page: 8

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: MW-4
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104007)

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease (Total)		5	ND	mg/L
TPH (Gas/BTXE,Liquid)				
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			11-12-91	
DILUTION FACTOR*			1	
as Gasoline		0.05	ND	mg/L
METHOD 8020 (GC,Liquid)			--	
DATE ANALYZED			11-12-91	
DILUTION FACTOR*			1	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes (Total)		0.5	ND	ug/L
METHOD 3510 (GC,FID)				
DILUTION FACTOR*			1	
DATE EXTRACTED			11-07-91	
DATE ANALYZED			11-12-91	
as Diesel		0.05	ND	mg/L
as Motor Oil		0.5	ND	mg/L

NET Pacific, Inc

Client Acct: 78800
Client Name: Miller Environmental
NET Log No: 91.0449

Date: 11/25/1991
Page: 9

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: MW-4
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104007)

Parameter	Method	Reporting Limit	Results	Units
METHOD 601 (GC,Liquid)				
DATE ANALYZED			11-13-91	
DILUTION FACTOR*			1	
Bromodichloromethane		0.4	ND	ug/L
Bromoform		0.4	ND	ug/L
Bromomethane		0.4	ND	ug/L
Carbon tetrachloride		0.4	ND	ug/L
Chlorobenzene		0.4	ND	ug/L
Chloroethane		0.4	ND	ug/L
2-Chloroethylvinyl ether		1.0	ND	ug/L
Chloroform		0.4	2.6	ug/L
Chloromethane		0.4	ND	ug/L
Dibromochloromethane		0.4	ND	ug/L
1,2-Dichlorobenzene		0.4	ND	ug/L
1,3-Dichlorobenzene		0.4	ND	ug/L
1,4-Dichlorobenzene		0.4	ND	ug/L
Dichlorodifluoromethane		0.4	ND	ug/L
1,1-Dichloroethane		0.4	ND	ug/L
1,2-Dichloroethane		0.4	ND	ug/L
1,1-Dichloroethene		0.4	ND	ug/L
trans-1,2-Dichloroethene		0.4	ND	ug/L
1,2-Dichloropropane		0.4	ND	ug/L
cis-1,3-Dichloropropene		0.4	ND	ug/L
trans-1,3-Dichloropropene		0.4	ND	ug/L
Methylene chloride		10	ND	ug/L
1,1,2,2-Tetrachloroethane		0.4	ND	ug/L
Tetrachloroethene		0.4	ND	ug/L
1,1,1-Trichloroethane		2.0	ND	ug/L
1,1,2-Trichloroethane		1	ND	ug/L
Trichloroethene		2.0	ND	ug/L
Trichlorofluoromethane		2.0	ND	ug/L
Vinyl chloride		2.0	ND	ug/L

NET Pacific, Inc

Client Acct: 78800
Client Name: Miller Environmental
NET Log No: 91.0449

Date: 11/25/1991
Page: 10

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: MW-5
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104008)

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease (Total)		5	ND	mg/L
TPH (Gas/BTXE,Liquid)				
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			11-11-91	
DILUTION FACTOR*			1	
as Gasoline		0.05	ND	mg/L
METHOD 8020 (GC,Liquid)			--	
DATE ANALYZED			11-11-91	
DILUTION FACTOR*			1	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes (Total)		0.5	ND	ug/L
METHOD 3510 (GC,FID)				
DILUTION FACTOR*			1	
DATE EXTRACTED			11-07-91	
DATE ANALYZED			11-12-91	
as Diesel		0.05	ND	mg/L
as Motor Oil		0.5	ND	mg/L

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: MW-5
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104008)

Parameter	Method	Reporting Limit	Results	Units
METHOD 601 (GC,Liquid)				
DATE ANALYZED			11-13-91	
DILUTION FACTOR*			1	
Bromodichloromethane		0.4	ND	ug/L
Bromoform		0.4	ND	ug/L
Bromomethane		0.4	ND	ug/L
Carbon tetrachloride		0.4	ND	ug/L
Chlorobenzene		0.4	ND	ug/L
Chloroethane		0.4	ND	ug/L
2-Chloroethylvinyl ether		1.0	ND	ug/L
Chloroform		0.4	1.1	ug/L
Chloromethane		0.4	ND	ug/L
Dibromochloromethane		0.4	ND	ug/L
1,2-Dichlorobenzene		0.4	ND	ug/L
1,3-Dichlorobenzene		0.4	ND	ug/L
1,4-Dichlorobenzene		0.4	ND	ug/L
Dichlorodifluoromethane		0.4	ND	ug/L
1,1-Dichloroethane		0.4	ND	ug/L
1,2-Dichloroethane		0.4	ND	ug/L
1,1-Dichloroethene		0.4	ND	ug/L
trans-1,2-Dichloroethene		0.4	ND	ug/L
1,2-Dichloropropane		0.4	ND	ug/L
cis-1,3-Dichloropropene		0.4	ND	ug/L
trans-1,3-Dichloropropene		0.4	ND	ug/L
Methylene chloride		10	ND	ug/L
1,1,2,2-Tetrachloroethane		0.4	ND	ug/L
Tetrachloroethene		0.4	ND	ug/L
1,1,1-Trichloroethane		2.0	ND	ug/L
1,1,2-Trichloroethane		1	ND	ug/L
Trichloroethene		2.0	ND	ug/L
Trichlorofluoromethane		2.0	ND	ug/L
Vinyl chloride		2.0	ND	ug/L

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: DC-1
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-104009)

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease (Total)		50	90	mg/Kg
CAM METALS (Solid,TTLC)				
Antimony	6010	10	ND	mg/Kg
Arsenic	7060	0.5	1.3	mg/Kg
Barium	6010	2.0	43	mg/Kg
Beryllium	6010	2.0	ND	mg/Kg
Cadmium	6010	2.0	ND	mg/Kg
Chromium	6010	2.0	55	mg/Kg
Chromium+6	7197	0.5	NA	mg/Kg
Cobalt	6010	5.0	9.2	mg/Kg
Copper	6010	2.0	7.1	mg/Kg
Lead	6010	20	ND	mg/Kg
Mercury	7471	0.1	ND	mg/Kg
Molybdenum	6010	5.0	ND	mg/Kg
Nickel	6010	5.0	40	mg/Kg
Selenium	7740	0.5	ND	mg/Kg
Silver	6010	2.0	ND	mg/Kg
Thallium	6010	20	ND	mg/Kg
Vanadium	6010	5.0	30	mg/Kg
Zinc	6010	2.0	27	mg/Kg
TPH (Gas/BTXE,Solid)				
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			11-12-91	
DILUTION FACTOR*			1	
as Gasoline		1	ND	mg/Kg
METHOD 8020 (GC,Solid)			--	
DATE ANALYZED			11-12-91	
DILUTION FACTOR*			1	
Benzene		2.5	ND	ug/Kg
Ethlybenzene		2.5	ND	ug/Kg
Toluene		2.5	ND	ug/Kg
Xylenes (Total)		2.5	ND	ug/Kg
METHOD 3550 (GC,FID)				
DILUTION FACTOR*			1	
DATE EXTRACTED			11-08-91	
DATE ANALYZED			11-13-91	
as Diesel		1	3.1	mg/Kg
as Motor Oil		10	32	mg/Kg

Ref: Alex Shaw, Job: 90-1008

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	88	ND	58	69	17
Motor Oil	0.5	mg/L	94	ND	N/A	N/A	N/A
O&G(Total)	5	mg/L	92	ND	93	91	1.8
O&G(Non-Polar)	5	mg/L	92	ND	N/A	N/A	N/A
Gasoline	0.05	mg/L	96	ND	102	97	5.0
Benzene	0.5	ug/L	97	ND	96	103	7.0
Toluene	0.5	ug/L	90	ND	106	103	2.9
Gasoline	0.05	mg/L	101	ND	106	93	13
Benzene	0.5	ug/L	93	ND	93	98	5.2
Toluene	0.5	ug/L	84	ND	96	97	1.0

COMMENT: Blank Results were ND on other analytes tested.

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Chlorobenzene	0.4	ug/L	N/A	ND	83	88	6.5
1,1-Dichloroethene	0.4	ug/L	N/A	ND	45	N/A	4.6
Trichloroethene	0.4	ug/L	N/A	ND	63	56	2.4

Ref: Alex Shaw, Job: 90-1008

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Antimony	10	mg/Kg	97	ND	80	81	<1
Arsenic	0.5	mg/Kg	96	ND	96	100	4.0
Barium	2	mg/Kg	103	ND	92	96	3.8
Beryllium	2	mg/Kg	99	ND	89	89	<1
Cadmium	2	mg/Kg	104	ND	88	90	2.5
Chromium	2	mg/Kg	104	ND	93	96	3.3
Cobalt	5	mg/Kg	104	ND	111	120	7.9
Copper	2	mg/Kg	105	ND	96	96	<1
Lead	20	mg/Kg	108	ND	95	98	2.0
Mercury	0.1	mg/Kg	96	ND	103	112	9.0
Molybdenum	5	mg/Kg	102	ND	87	81	5.5
Nickel	5	mg/Kg	105	ND	106	118	7.6
Selenium	0.5	mg/Kg	96	ND	92	96	4.1
Silver	2	mg/Kg	102	ND	88	82	5.5
Thallium	20	mg/Kg	106	ND	94	96	1.4
Vanadium	5	mg/Kg	99	ND	92	94	1.5
Zinc	2	mg/Kg	101	ND	96	102	3.6

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KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

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

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

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

NATIONAL
ENVIRONMENTAL
TESTING, INC.

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

Reinhard Ruhmke
Miller Environmental
385 Pittsburg Ave.
Richmond, CA 94801

Date: 11/30/1991
NET Client Acct. No: 78800
NET Pacific Log No: 91.0762
Received: 11/20/1991

Client Reference Information

Alex Shaw, Job: 90-1008

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

Approved by:

Jules Skamarack FOR:
Laboratory Manager

Enclosure(s)

NET Pacific, Inc

Client Acct: 78800
Client Name: Miller Environmental
NET Log No: 91.0762

Date: 11/30/1991
Page: 2

Ref: Alex Shaw, Job: 90-1008

SAMPLE DESCRIPTION: DC-1
Date Taken: 10/31/1991
Time Taken:
LAB Job No: (-105627)

Parameter	Method	Reporting Limit	Results	Units
pH - Corrosivity			8.8	pH units
Flashpoint/Ignitability		80	>140	Degree F
Sulfide		10	ND	mg/Kg
Cyanide (Total)		0.2	ND	mg/Kg

NET Pacific, Inc

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

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

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

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Sample Analysis Request/Chain of C...

MILLER ENVIRONMENTAL COMPANY, INC.
Engineering Geology Construction
385 Pittsburg Avenue, Richmond, CA 94801
Tel: 415-233-8068 Fax: 415-233-2508 CA License A-542360

JOB NAME: Alex Shaw

JOB NUMBER: 90-1008

P.O. Number:

Samplers: Reinhard Muhmle

Sample I.D.	Date	Time	Comp.	Grab	Location	No. of Containers	Matrix	TPH as Gasoline	BTXE	TPH as Diesel	Total Oil & Grease	601	CAM-17	Turn Around Time
MW1	10/31			X	Monitoring well 1	6	Water	X	X	X	X	X		10-day
MW2	↓			X	" " 2	6	↓	X	X	X	X	X		↓
MW3				X	" " 3	6		X	X	X	X	X		
MW4				X	" " 4	6		X	X	X	X	X		
MW5				X	" " 5	6		X	X	X	X	X		
DC-1	X			X	Drill cuttings	4	Soil	X	X	X	X		X	Lab composite

CUSTODY SEALED 11/1/91 @ 19:00 J. Vances

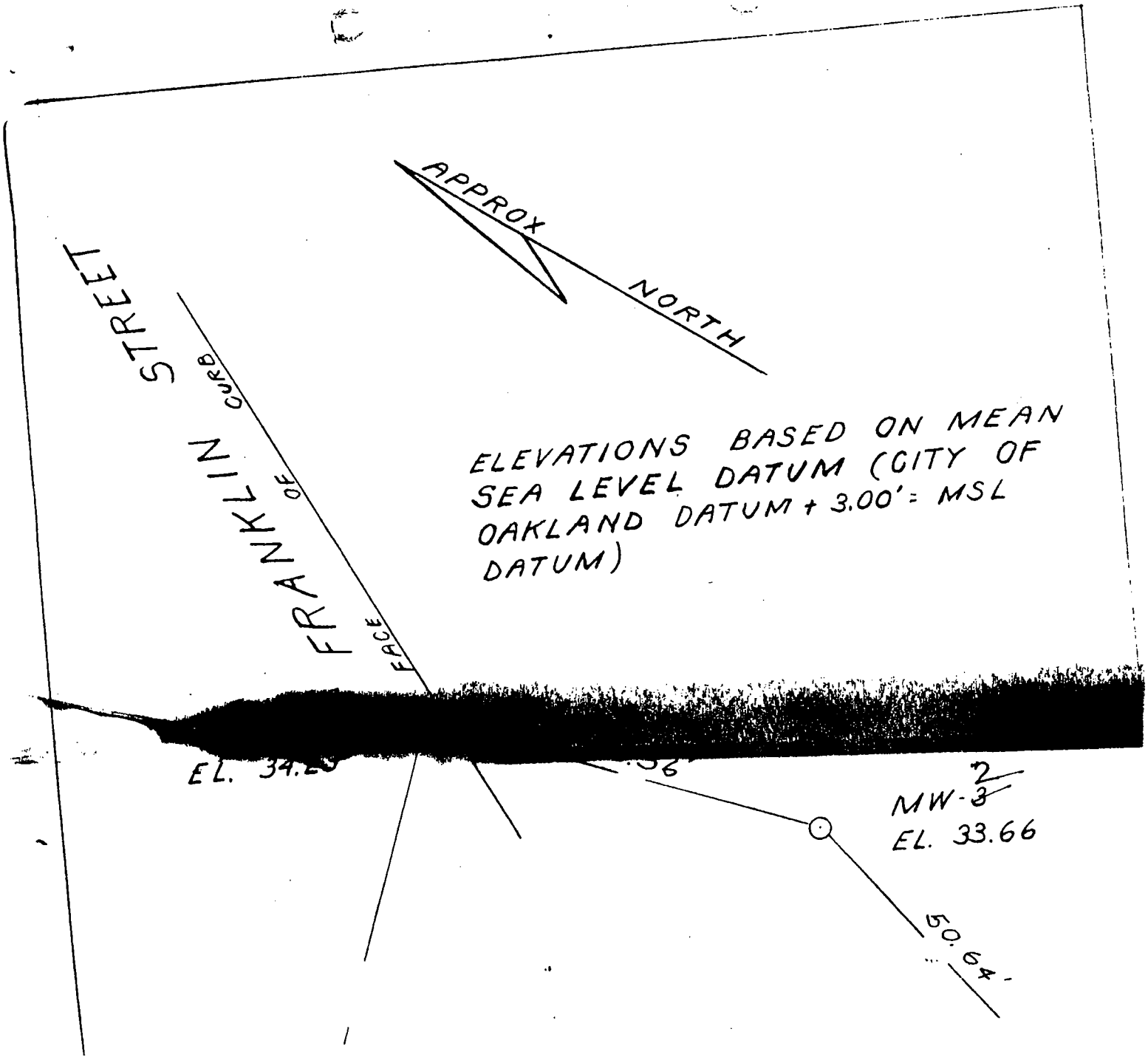
Relinquished By (signature)	Date	Time	Accepted By (Signature)
1 Reinhard Muhmle	11/1/91	13:20	1 Jeff Nichols
2 Jeff Nichols	11/1	19:00	2
3 (VANCES)	11/2/91	1000	3

Laboratory Name & Address: NET

REMARKS: Lab composite DC-1

APPENDIX D

Plat of Survey


APPROX
NORTH
FRANKLIN STREET
CURB
OF
FACE
ELEVATIONS BASED ON MEAN SEA LEVEL DATUM (CITY OF OAKLAND DATUM + 3.00' = MSL DATUM)
EL. 34.2
MW-2
MW-3
EL. 33.66
50.64

APPENDIX E

Soil Disposal Tag

Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 606500

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name _____ Generating Location _____

Address _____ Address _____

Phone No. ( ) - Phone No. ( ) -

BFI Waste Code

Description of Waste	Quantity	Units	Containers No.	Containers Type

Type: D - Drum; C - Carton; B - Bag; T - Truck; P - Pounds; Y - Yards; O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name _____ Signature _____ Shipment Date

TRANSPORTER

Truck No. _____ Phone No. _____

Transporter Name _____ Driver Name (Print) _____

Address _____ Vehicle License No./State _____

Vehicle Certification _____

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature _____ Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature _____ Delivery Date

DESTINATION

Site Name _____ Phone No. ( ) -

Address _____

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent _____ Signature _____ Receipt Date

10/86

PASS CODE _____

BFI260-720