RESULTS OF ADDITIONAL SITE ASSESSMENT AND REMEDIATION ACTIVITIES

FORMER BILL CHUN SERVICE STATION
2301 SANTA CLARA AVENUE
ALAMEDA, CALIFORNIA

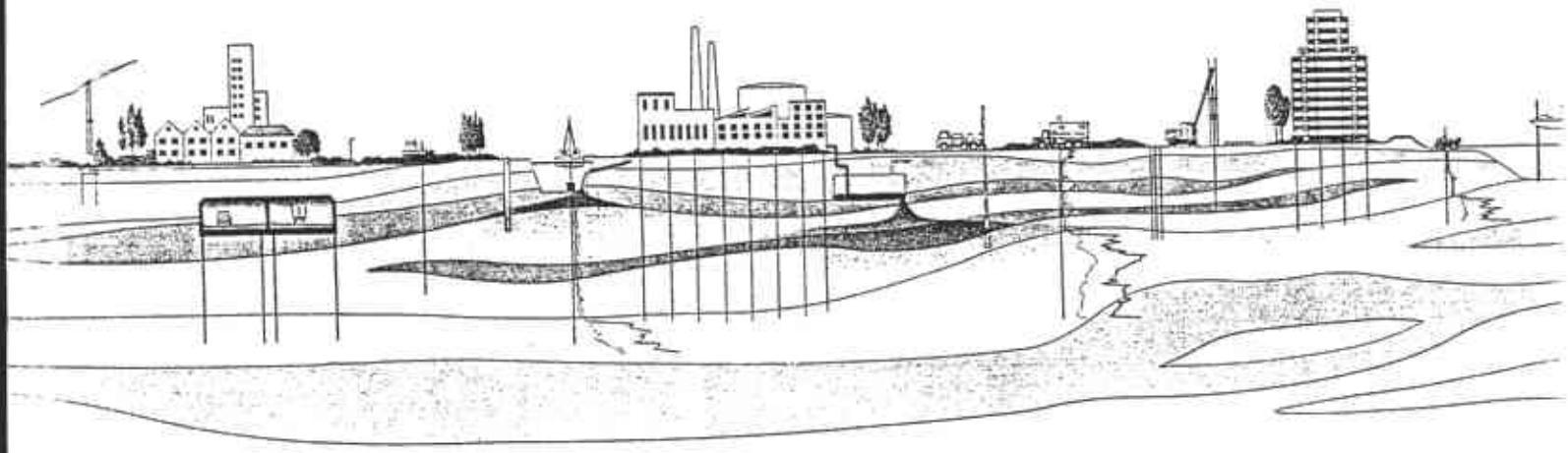
Prepared for:

MR. WAYNE CHUN
265 Heron Drive
Pittsburg, California

Prepared by:

FUGRO WEST, INC.
44 Montgomery, Suite 1010
San Francisco, California 94104

FEBRUARY 1995
Fugro Project No. 9437-7622



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February 7, 1995
Project No. 9437-7622

Mr. Wayne Chun
265 Heron Drive
Pittsburg, California 94565

Results of Additional Site Assessment and Remediation Activities
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Dear Mr. Chun:

Fugro West, Inc. (Fugro), is pleased to provide Mr. Wayne Chun with the results of the limited subsurface investigation, over-excavation of the former tank pit, vapor extraction pilot test, and limited investigation of potential offsite sources at the former Bill Chun Service Station located at 2301 Santa Clara Avenue in Alameda, California. This work was performed in accordance with Fugro's "Proposal for Environmental Site Assessment Services", dated June 10, 1994, "Fee Adjustments, Proposal for Environmental Site Assessment Services", dated June 24, 1994, and "Change of Scope and Fee Adjustments, Environmental Site Assessment Services", dated September 27, 1994. This report is based, in part, on information provided by Mr. Chun, and is subject to modification as newly-acquired information may warrant.

Fugro appreciates this opportunity to provide environmental consulting services to you. If you have any questions regarding this report, please contact us at (415) 296-1041.

Sincerely,

FUGRO WEST, INC.

William E. Bassett, Jr.
Project Environmental Scientist

REGISTERED GEOLOGIST
PAUL GRAFF
No. 5600
Exp. 6/30/95
STATE OF CALIFORNIA

Paul K. Graff
Registered Geologist
CRG No. 5600

2/7/95
Date

WEB:dlb
Attachments
WEB:dlb

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1.0 INTRODUCTION

1.1 Background

The former Bill Chun Service Station (Subject Property) is a former fuel service station located on the northeast corner of the intersection of Santa Clara Avenue and Oak Street in a commercial and residential area of Alameda, California (Figure 1). The Subject Property previously retailed gasoline fuel. Details of the Subject Property's former facilities, including underground storage tank (UST) and fuel dispensing island locations, and on-site monitoring wells, are shown on Figure 2.

In July 1992, Parker Environmental Services (Parker) removed three single-wall steel UST's (two 550-gallon and one 285-gallon) from the Subject Property. Associated product piping and a dispenser island were also excavated and removed. Parker reported that a two-inch diameter hole was observed at the bottom of the 285-gallon tank. Parker collected one soil sample from beneath each tank, one sample from beneath the former fuel island, and two samples from the stockpiled soil.

Laboratory analysis of soil samples collected from beneath the former tanks and piping indicated concentrations of total petroleum hydrocarbons as gasoline (TPH-g) up to 16,000 parts per million (ppm), and benzene, toluene, eythylbenzene, and total xylenes (BTEX) up to 1,400 ppm.

1.2 Previous Investigations

In January 1993, Environmental Science & Engineering, Inc. (ESE) drilled and installed three two-inch diameter groundwater monitoring wells (MW-1, MW-2, and MW-3) on the Subject Property (Figure 2). Soil samples collected at ten feet below ground surface (bgs) in wells MW-1, MW-2, and MW-3 contained TPH-g concentrations of 640, 5,800, and 2,100 ppm, respectively, and benzene concentrations of 1.5 and 110 ppm, and less than 0.5 ppm, respectively. Groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3 contained concentrations of TPH-g of 110, 85, and 8.5 ppm, respectively, and benzene concentrations of 14, 20, and 0.17 ppm, respectively. Results were included in a report by ESE titled "*Preliminary Site Assessment*", dated March 31, 1993.

In September 1993, ESE drilled and installed four additional groundwater monitoring wells (MW-4, MW-5, MW-6, and MW-7) on the Subject Property (Figure 2). Concentrations of TPH-g were not detected in soil samples collected from MW-4 at six and nine feet bgs, or MW-5 and MW-7 at six feet bgs. Soil samples collected from MW-5 at nine feet bgs, MW-6 at ten feet bgs, and MW-7 at ten feet bgs contained concentrations of TPH-g of 11,000, 3,400, and 13,000 ppm, respectively. Benzene concentrations in MW-4 at nine feet bgs, MW-5 at nine feet bgs, MW-6 at ten feet bgs, and MW-7 at ten feet bgs were less than 0.005, 34, 8, and 250 ppm, respectively. Results were included in a report by ESE titled "*Additional Site Assessment and Third Quarter 1993 Groundwater Monitoring Report*", dated October 1, 1993.

Quarterly groundwater monitoring and sampling has been performed at the Subject Property since January 1993. Groundwater gradients calculated using field data from these events have generally been directed towards the north. Floating liquid hydrocarbons have been detected in monitoring well MW-5 since November 1993 (maximum thickness 0.61 feet in December 1993) and MW-7 since February 1994 (maximum thickness 0.30 feet in June 1994). Concentrations of dissolved TPH-g, BTEX, and total petroleum hydrocarbons as diesel (TPH-d) have been detected in groundwater samples collected from each

of the seven monitoring wells (maximum TPH-g concentration of 140 ppm in MW-2 on September 7, 1993; maximum benzene concentration of 46 ppm in MW-2 on September 7, 1993; and maximum TPH-d concentration of 18 ppm in MW-2 on March 4, 1994). Results were included in a report by ESE titled *"Second Quarter 1994 Groundwater Monitoring, Former Bill Chun Service Station, 2301 Santa Clara Avenue, Alameda, Alameda County, California"*, dated August 16, 1994.

1.3 Scope of Work Performed

Fugro performed the following work at the site according to the Fugro standard operating procedures (SOPs) included as Appendix A:

- Prepared a project-specific Health and Safety Plan and obtained appropriate permits.
- Directed the over-excavation and backfilling of the former UST cavity.
- Stockpiled excavated soil onsite and secured the stockpile with plastic sheeting.
- Drilled and installed one 2-inch diameter vapor extraction well (SV-1) onsite.
- Drilled three 8-inch diameter soil borings (HP-1 through HP-3) offsite and collected grab groundwater samples from each boring.
- Submitted selected soil samples to a state-certified laboratory for analysis.
- Performed free product recovery in wells MW-5 and MW-7.
- Performed a limited Phase I environmental site assessment (ESA) to investigate possible offsite sources of petroleum hydrocarbons in soil and groundwater.
- Directed removal and transportation of stockpiled soil from the site to an offsite treatment facility.
- Performed a 4-hour soil vapor extraction (SVE) pilot test.
- Prepared this report of findings.

2.0 FIELD ACTIVITIES

2.1 Over-Excavation of Former UST Cavity

On August 12, 1994, Fugro personnel directed the over-excavation of the former UST cavity. Excavation was performed by Western, Inc. of Oakland, California (Figure 2). Approximately 50 cubic yards of soil were excavated from the former UST cavity, stockpiled on the Subject Property, and secured with plastic sheeting. The cavity was subsequently backfilled with clean imported soil which was compacted in place.

2.2 Soil Borings

On August 30, 1994, four soil borings (SV-1, and HP-1 through HP-3) were drilled by West Hazmat Drilling Corporation, of Newark, California, at the locations shown on Figure 2. The borings were drilled using 8-inch diameter hollow stem augers. Boring SV-1 was drilled to ten feet bgs, then completed as a 2-inch diameter vapor extraction well. Borings HP-1, HP-2, and HP-3 were drilled to ten feet bgs. Soil samples were collected from each boring at five foot intervals and screened in the field for hydrocarbons using a photoionization detector (PID). A grab groundwater sample was collected from each of borings HP-1, HP-2, and HP-3. Following collection of grab groundwater samples, borings HP-1, HP-2, and HP-3 were filled to the surface with cement grout. Approximately one cubic yard of soil was added to the stockpile already on the Subject Property from the over-excavation of the former UST cavity.

Wet soils indicative of groundwater were encountered at depths ranging from approximately nine to ten feet bgs. Soil descriptions, classifications, PID screening results and other pertinent information were recorded on the soil boring logs included as Appendix B.

2.3 Soil Sampling and Analysis

Ten soil samples (SW-1 through SW-10) were collected from the side walls of the former UST cavity at approximately eight feet bgs. Four of the sidewall samples (SW-2, SW-4, SW-6, and SW-10) were submitted to Excelchem Environmental Labs (Excelchem) of Citrus Heights, California, a state-certified laboratory, for analysis of TPH-g, BTEX, and total petroleum hydrocarbons as diesel (TPH-d) using EPA Methods 5030/8015M, 5030/8020, and 3550/8015M, respectively.

Four soil samples collected from soil borings SV-1, HP-1, HP-2, and HP-3 (one from each boring) were selected for laboratory analysis and submitted to Excelchem. The four soil samples from the borings (HP-1/11', HP-2/11', HP-3/11', and SV-1/9.5') were analyzed for TPH-g, BTEX, TPH-d, and halogenated volatile organic compounds (HVOCs) using EPA methods 5030/8015M, 5030/8020, 3550/8015M, and 8010, respectively.

Six soil samples (SP-1 through SP-6) were collected from the soil stockpile. The six stockpile samples were composited into two samples by the laboratory and analyzed for TPH-g, BTEX, total lead, and reactivity, corrosivity and ignitability (RCI) using EPA methods 5030/8015M, 5030/8020, 7420, 9010 (reactive cyanide), 9030 (reactive sulfide), 9045 (pH), and 1010 (flash point). Soil samples were collected according to the Fugro SOPs included in Appendix A.

2.4 Soil Analytical Results

Laboratory analysis indicated that hydrocarbon concentrations were detected in sidewall soil sample SW-6 (concentration of 0.006 ppm of total xylenes), and boring samples HP-1/11 feet (concentrations of TPH-g and BTEX of 4,600, 4.1, 77, 24, and 88 ppm, respectively), HP-3/11 (0.008 ppm benzene) and SV-1/9.5 feet (concentrations of TPH-g and BTEX of 8,400, 37, 330, 170, and 830 ppm, respectively). No other analytes were detected at or above laboratory reporting limits. Table 1 is a summary of soil analytical results. Copies of laboratory reports and chain-of-custody records are included in Appendix C.

2.5 Groundwater Sampling and Analysis

On August 30, 1994, grab groundwater samples were collected from borings HP-1, HP-2, and HP-3 in accordance with Fugro SOPs. The samples were collected using a Hydropunch® sampling device. The samples were submitted to Excelchem for analysis of TPH-g, BTEX, TPH-d, and HVOCs using EPA methods 8015M, 602, 3510/8015M, and 601, respectively.

2.6 Groundwater Analytical Results

Laboratory analysis indicated that concentrations of dissolved hydrocarbons were detected in groundwater samples collected from boring HP-1 (concentrations of TPH-g and BTEX of 7,500, 19, 98, 15, and 53 parts per billion (ppb), respectively), and HP-3 (concentrations of TPH-g and BTEX of 950, 410, 2.0, 5.0 and 9.0 ppb, respectively). A concentration of 54 ppb of 1,2-Dichloroethane (1,2-DCA) was detected in a groundwater sample collected from boring HP-3. No other analytes were detected at or above laboratory reporting limits. Table 2 is a summary of groundwater analytical results. Copies of laboratory reports and chain-of-custody records are included in Appendix D.

2.7 Vapor Extraction Well Installation

One boring drilled onsite (SV-1) was completed as vapor extraction well using two-inch diameter Schedule 40 PVC casing. Well SV-1 was screened from approximately five feet bgs to the total depth of ten feet bgs using casing with 0.020-inch slots. Vapor extraction well construction details are included with the boring logs in Appendix B.

2.8 Vapor Extraction Pilot Test

A vapor extraction pilot test was conducted on September 29, 1994. Vapors were extracted from wells SV-1, MW-4, MW-6, and MW-7 (one well at a time) by inducing a vacuum on the subject well using a rotary lobe vacuum pump. Field measurements of flow, hydrocarbon concentrations, temperature, and vacuum were taken at regular intervals. The pressure/vacuum responses induced in the surrounding wells were measured at regular intervals with a minimum resolution of 0.005 inches of water column head. Measured water levels in wells MW-1, MW-2 and MW-3 were above the respective screened intervals of the wells. Therefore, no data obtained from these wells is presented.

A vacuum was applied to well SV-1 for one hour and thirty minutes. The flow ranged from 8 to 13 standard cubic feet per minute (scfm). The field measurement using the PID decreased from 10,000 parts per million by volume (ppmv) at 8-minutes elapsed time to 7,000 ppmv at the end of the test. An air sample collected at the end of the test (i.e., when the PID indicated 7,000 ppmv) was submitted to Excelchem for analysis for TPH-g and BTEX. Analytical results indicated 9,000 ppmv TPH-g and 390 ppmv benzene and are shown on Table 3. Copies of laboratory reports and chain-of-custody records are included in Appendix E.

A vacuum was applied to each of wells MW-4, MW-6, and MW-7 for approximately ten minutes in order to determine the flow and concentration trends across the site. The flows were 18, 4, and 3 scfm respectively. Concentrations measured using the PID were 10, 50, and 10,000 ppmv respectively. Refer to Tables 3 and 4 for test results.

2.9 Soil Disposition

Approximately 69.6 tons of stockpiled soil were removed from the site on September 28, 1994 and transported by Den Beste Trucking, a licensed hazardous waste hauler, to Bay Area Tank and Marine's San Francisco facility for treatment using enhanced biodegradation. Copies of waste transportation manifests and waste acceptance forms are included in Appendix F.

2.10 Floating Liquid Hydrocarbon Recovery

Between August 12, 1994 and September 16, 1994, Fugro performed weekly free product recovery from monitoring wells MW-5 and MW-7. During each recovery event, depth to groundwater and depth to free product were measured in both wells. Free product and groundwater were then recovered from the wells by manual bailing until the apparent free product thickness was reduced to a sheen. Recovered fluids were temporarily stored onsite in Department of Transportation-approved 55-gallon drums pending transport by a licensed hazardous waste hauler to an offsite recycler. Free product recovery was also performed on November 9, 1994 and December 20, 1994. A total of approximately 0.50-gallons of free product was removed from the two wells between August 12, 1994 and December 20, 1994. Table 5 summarizes free product recovery data for the period.

3.0 LIMITED INVESTIGATION OF POTENTIAL OFFSITE SOURCES

Fugro performed a limited Phase I environmental site assessment (ESA) to identify and assess characteristics of properties in the vicinity of the Subject Property that may be of environmental concern, particularly with respect to Leaking Underground Storage Tank (LUST) sites. In conducting the limited ESA, Fugro researched published government databases, reviewed historical aerial photographs, reviewed regulatory agency records, and performed a field reconnaissance of adjacent properties.

3.1 Database Search

Fugro reviewed the State of California Regional Water Quality Control Board (RWQCB) LUST list. The Subject Property was included on the LUST listings. In addition, 23 other sites are listed within a one-half mile radius of the Subject Property. Of these, only one (Automotive Auto Repair, 2425 Central Avenue) is located within one-quarter mile of the Subject Property in a hydrogeologically upgradient direction. According to Ms. Juliet Shin of the Alameda County Environmental Health Department Hazardous Materials Division (ACEHDHMD), four USTs were removed from the site in 1988. Two of the USTs (one 10,000-gallon and one 6,000-gallon) contained gasoline and two (750 gallons each) contained waste oil. Soil samples collected beneath the USTs indicated concentrations of TPH-g of up to 410 ppm. One groundwater monitoring well was subsequently installed and sampled. A concentration of dissolved TPH-g of 350 ppb was detected in a groundwater sample collected from the well. According to Ms. Shin, the ACEHDHMD sent a letter to the property owner in December 1994 requesting resumption of quarterly groundwater monitoring.

3.2 Historical Aerial Photograph Review

Aerial photographs were reviewed at Pacific Aerial Surveys in Oakland, California for the presence of suspect environmental features which may have affected the Subject Property. Aerial photographs reviewed were taken in 1947, 1950, 1953, 1959, 1963, 1968, 1973, 1977, 1983, 1985, 1989, and 1994. Review indicated that the site vicinity was completely developed in 1947. Structures which appear to have the same size, shape, and location as the current site structures were observed from 1947 until the present. Structures which appear to have the same size, shape, and location as the current Alameda City Hall (west of the site), and Towata's Flower Shop (east of the site) were observed in 1947 until the present (Figure 3). No potentially hazardous sites, unusual changes in vegetation, or other suspect surface features at or adjacent to the Subject Property were observed during the review of the aerial photographs.

3.3 Government Agency Records Review

According to documents reviewed at the Alameda County Assessor's Office, the currently listed owner of 2301 Santa Clara Avenue (Subject Property) is Lily A. Chun Tr., 740 Canterbury Avenue, Livermore, California. The Subject Property's Assessor's Parcel Number (APN) is 71-202-27. The current listed owner of Towata's Flower Shop (adjacent to the Subject Property to the east) is Georgianna Towata, 2305 Santa Clara Avenue, Alameda, California. The site's APN is 71-202-26-2.

According to utility maps reviewed at the City of Alameda Engineering Department, no storm drains are located on Santa Clara Avenue or Oak Street adjacent to the Subject Property. Sanitary sewer lines are located along the centerline of Oak Street (at a depth of approximately 10.5 feet bgs) and approximately 13 feet north of the centerline of Santa Clara Avenue (at a depth of approximately four feet bgs).

Documents reviewed at the City of Alameda Engineering Department include a report titled "*Underground Storage Tank Removal and Soil Excavation Report, Alameda City Hall, 2263 Santa Clara Avenue, Alameda, California*" by RGA Environmental, dated October 1994. The report describes the excavation and removal of three USTs and petroleum-affected soil from the City Hall property, which is located on the west side of Oak Street across from the Subject Property. Refer to Figure 3 for the approximate locations of the three USTs. Laboratory analysis of soil samples indicated TPH-g and BTEX concentrations detected in soil collected beneath Tank 1 (TPH-g concentration of 4,700 ppm). Hydrocarbon-affected soil was subsequently excavated from the area of Tank 1. Laboratory analysis of soil samples collected at the limits of the excavation indicated TPH-g and BTEX concentrations were detected in soils at a depth of nine to 10.5 feet bgs (maximum TPH-g concentration of 100 ppm). TPH-g and BTEX were not detected in soil samples collected from the sidewalls of the Tank 2 and Tank 3 cavities. A groundwater sample collected from the Tank 2 cavity did not contain detectable TPH-g, BTEX, or lead concentrations. Two monitoring wells were observed on the property, however no sampling information was available.

Records obtained from the City of Alameda Fire Department (AFD) by Mr. Wayne Chun indicated the past or current existence of underground fuel storage tanks in the Subject Property vicinity. Based on the calculated groundwater gradient direction (to the north), the following sites, located south of the Subject Property, were considered the most likely potential off-site hydrocarbon sources:

- A Shell Oil Company Service Station located at 2300 Santa Clara Avenue was listed as having five gasoline USTs installed in 1939 and removed in 1950. The site, which is currently a parking lot for Long's Drug Store, is located directly across Santa Clara Avenue from the Subject Property.

- A site at 2248 Santa Clara Avenue was listed as having a 250-gallon gasoline UST "in (the) rear yard"; the UST was reportedly removed in 1965.

- A site at 2254 Santa Clara Avenue was listed as having a 550-gallon gasoline UST installed in 1947.

- A site at 2268 Santa Clara Avenue (the Alameda Free Library) was listed as having a 1,500-gallon UST containing "stove oil". The UST permit was issued in 1927.

- A site at 2314 Santa Clara Avenue was listed as having a 125-gallon gasoline UST installed in 1926 (listed owner is George Otzen), and a 550-gallon gasoline UST installed in 1946 (listed owner is DaVeda Bottling Company; UST was removed in 1951).

- AFD records also indicated the existence of a 290-gallon gasoline UST "under the sidewalk" at the Subject Property.

In addition, Mr. Wayne Chun stated he recalled the existence of a gasoline UST at the Towata's Flower Shop property (2305 Santa Clara Avenue), which is located adjacent to the Subject Property to the east.

3.4 Site Reconnaissance

On December 27, 1994, Mr. William Bassett of Fugro visited the Subject Property to perform a site reconnaissance and attempt to locate the UST reported to have existed "under the sidewalk" at the Subject Property. During the site reconnaissance, Fugro observed surface conditions at the Subject Property and nearby suspect sites identified by researching agency files and other sources. Observations of nearby sites were conducted from the vantage point of the public right-of-way.

An attempt was made to locate the reported UST at the Subject Property using a magnetic locator and an electromagnetic detection device. According to Mr. Otis Haskins of CU Surveys (an underground location subcontractor), no USTs or other large metal objects were detected beneath the sidewalks adjacent to the Subject Property.

Observations of nearby sites identified in AFD files included the following:

- Shell Oil Company (2300 Santa Clara Avenue): The site is currently a parking lot for the adjacent Long's Drug Store. No evidence of USTs or the former gas station was observed.

- 2248 Santa Clara Avenue: A metal-walled "shop" building was visible in the rear yard of the house at the listed address. No evidence of USTs or gasoline dispensers was observed.

- 2254 Santa Clara Avenue: No evidence of USTs or gasoline dispensers was observed at the property, which appeared to be residential.

- 2268 Santa Clara Avenue: No evidence of USTs was observed at the property. The Alameda Free Library was operating at the site.

- 2314 Santa Clara Avenue: No evidence of USTs was observed at the property. Retail and commercial businesses appear to occupy the site and adjacent sites. A bicycle shop was located at the listed address.

- Towata's Flower's Shop (2305 Santa Clara Avenue): A rectangular patch of newer asphalt was observed in the rear portion of the property (Figure 3). According to a passerby (who claimed to be a local resident for many years), a gasoline UST had been removed from the patched area about four years ago. According to the passerby, gasoline from the tank had been delivered through a dispenser to vehicles used to deliver flowers.

- Alameda City Hall and Police Department (2263 Santa Clara Avenue): Patched asphalt and newer brick sidewalk was observed in the areas of the three removed USTs described in the report reviewed at the City of Alameda Engineering Department.

4.0 CONCLUSIONS

Fugro has performed a limited subsurface investigation, over-excavation of the former UST cavity, a vapor extraction pilot test, and limited investigation of potential offsite sources at the former Bill Chun Service Station located at 2301 Santa Clara Avenue in Alameda, California. The results of these activities indicate the following:

- Over-excavation of the former UST cavity was effective in removing almost all hydrocarbon-affected soil from the unsaturated zone at the Subject Property.

- Concentrations of gasoline-range hydrocarbons exist in soil at depths of 9.5 to 11 feet bgs beneath much of the site, with the exception of the vicinity of MW-4. The zone between 9.5 and 11 feet bgs corresponds to the "smear" zone of fluctuating groundwater levels. **The lateral extent of hydrocarbons in soil near the "smear" zone has not been adequately characterized offsite to the north, east, and south.**

- Concentrations of gasoline-range hydrocarbons exist in groundwater offsite to the south (upgradient) in the vicinity of boring HP-1. The low concentrations of BTEX constituents relative to the concentration of TPH-g indicates the contaminant may be aged gasoline associated with an offsite source.

- Concentrations of gasoline-range hydrocarbons exist in groundwater offsite to the north (downgradient) in the vicinity of boring HP-3. Hydrocarbons in groundwater have not been adequately characterized in any direction.

- **The low concentration of 1,2-DCA detected in groundwater collected from HP-3 probably represents either a chemical breakdown product of gasoline constituents or additives, or a release of solvents to the subsurface associated with the former automotive repair facility at the Subject Property.**

- Air flow through the soil may be following preferential flow paths. If so, additional vapor extration wells may be needed to achieve an area of influence adequate to include all known hydrocarbon-affected soils at the Subject Property.

- Vapor extraction appears to be an effective alternative for remediating the hydrocarbon-affected soils at the Subject Property which are not below groundwater. Thermal oxidation is probably a cost-effective vapor treatment alternative. A treatment system capable of extracting 100 scfm should be adequate.

- Potential offsite sources of gasoline in soil and groundwater at the Subject Property include the former Shell Gas Station (2300 Santa Clara Avenue), Towata's Flower Shop, (2305 Santa Clara Avenue), The Alameda City Hall, (2263 Santa Clara Avenue), and the Automotive Auto Repair site (2425 Central Avenue).

- The lateral extent of fee product has not been adequately characterized to the east and north of MW-7.

5.0 RECOMMENDATIONS

Based on the findings and conclusions presented in this report, Fugro recommends the following:

- Ongoing review of regulatory agency records regarding the Automotive Auto Repair facility at 2425 Central Avenue.

- A free product recovery program utilizing passive recovery devices (PRDs) in wells MW-5 and MW-7. The PRDs should be monitored daily at first, then less frequently as appropriate.

- Further assessment of the lateral extent of free product east and north of well MW-7.

- Further assessment of the upgradient extent of hydrocarbons in soil and groundwater, particularly near the former Shell Gas Station and other potential offsite sources. Such assessment should include chemical analyses and/or fuel fingerprinting to determine the source of hydrocarbons located upgradient of the Subject Property.

- Further assessment of the extent of hydrocarbons in soil and groundwater east and north of the site.

6.0 LIMITATIONS

This report has been prepared to aid Mr. Wayne Chun in identifying and addressing environmental site conditions at the former Bill Chun Service Station property. This report was prepared for the sole benefit of Mr. Wayne Chun and may not be relied upon by any other person or entity without the written authorization of Fugro West, Inc. However, permission is hereby given to share the information contained in this report and to provide copies of all or part of this report to tenants or prospective tenants of all or part of the premises; purchasers or prospective purchasers of the premises; lenders or prospective lenders who may provide financing for the premises; any contractors or maintenance companies that work in, on, or about the premises; and the consultants and/or legal advisors of any of the above.

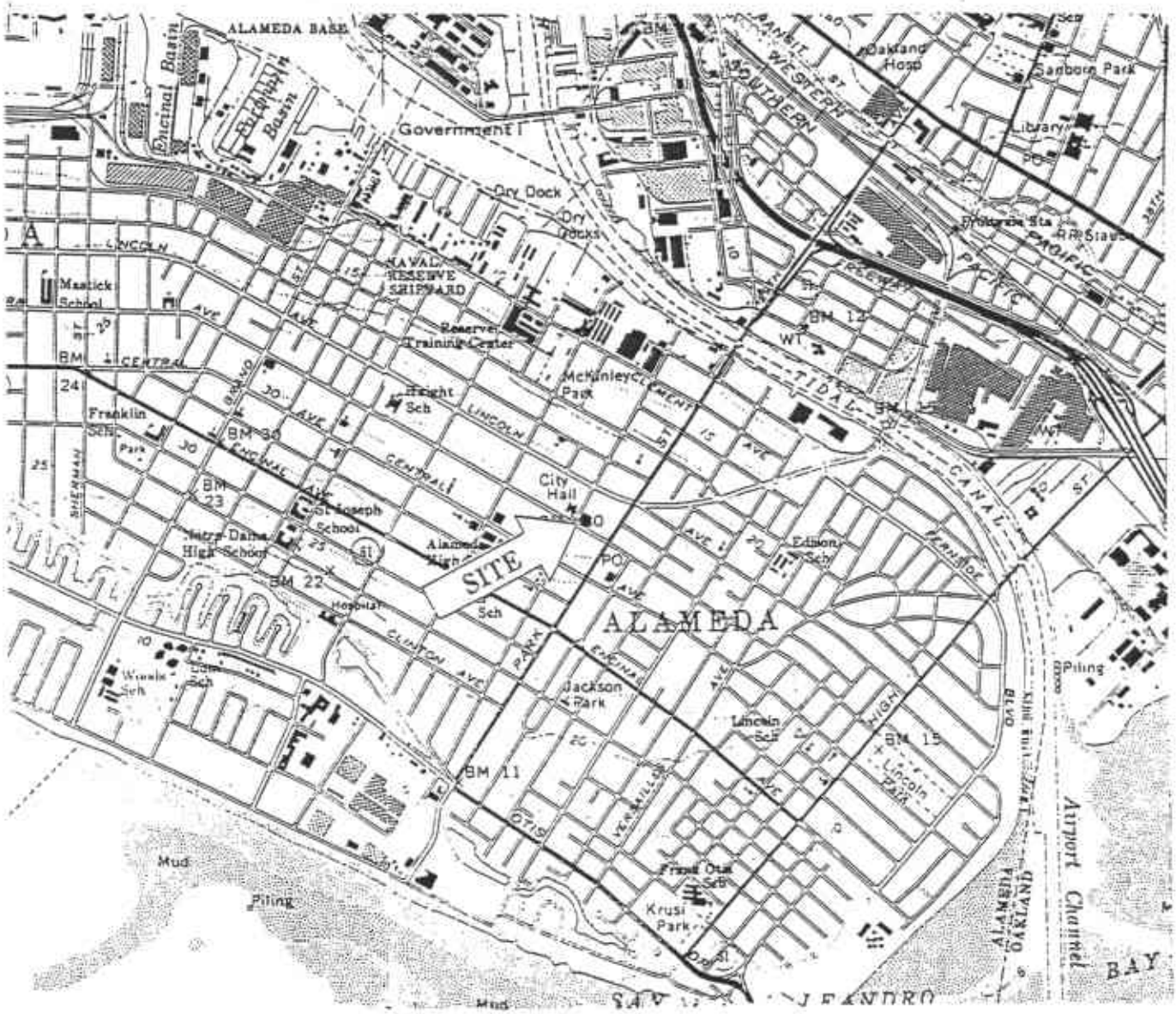
During this scope of services, Fugro relied on interviews of the property owners, regulatory officials, and other private individuals. Fugro has assumed, where reasonable to do so, that the information provided is true and accurate. If information to the contrary is discovered, our conclusions and recommendations may not be valid. Fugro can make no direct inferences as to the subsurface conditions at the site based on the Phase I scope of work, which does not include a detailed assessment of the subsurface. Fugro makes no warranty, express or implied, concerning any of the observations or conclusions contained in this report.

Our opinion is based on conditions existing at the time the site work was performed. Fugro is not responsible for conditions which may have gone undetected or which arise at any subsequent time. Fugro cannot guarantee the accuracy or completeness of government agency database searches and file reviews or of information provided in personal interviews. This assessment is not intended to be a complete or specific definition of all conditions above or below grade. Fugro is not responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time this study was performed.

The consultant has no present or contemplated future ownership interest or financial interest in the real estate that is the subject of the scope of services.

The consultant has no personal interest with respect to the subject matter of the scope of services or the parties involved and the consultant has no relationship with the property or the owners thereof which would prevent an independent analysis of the environmental or other conditions of the property.

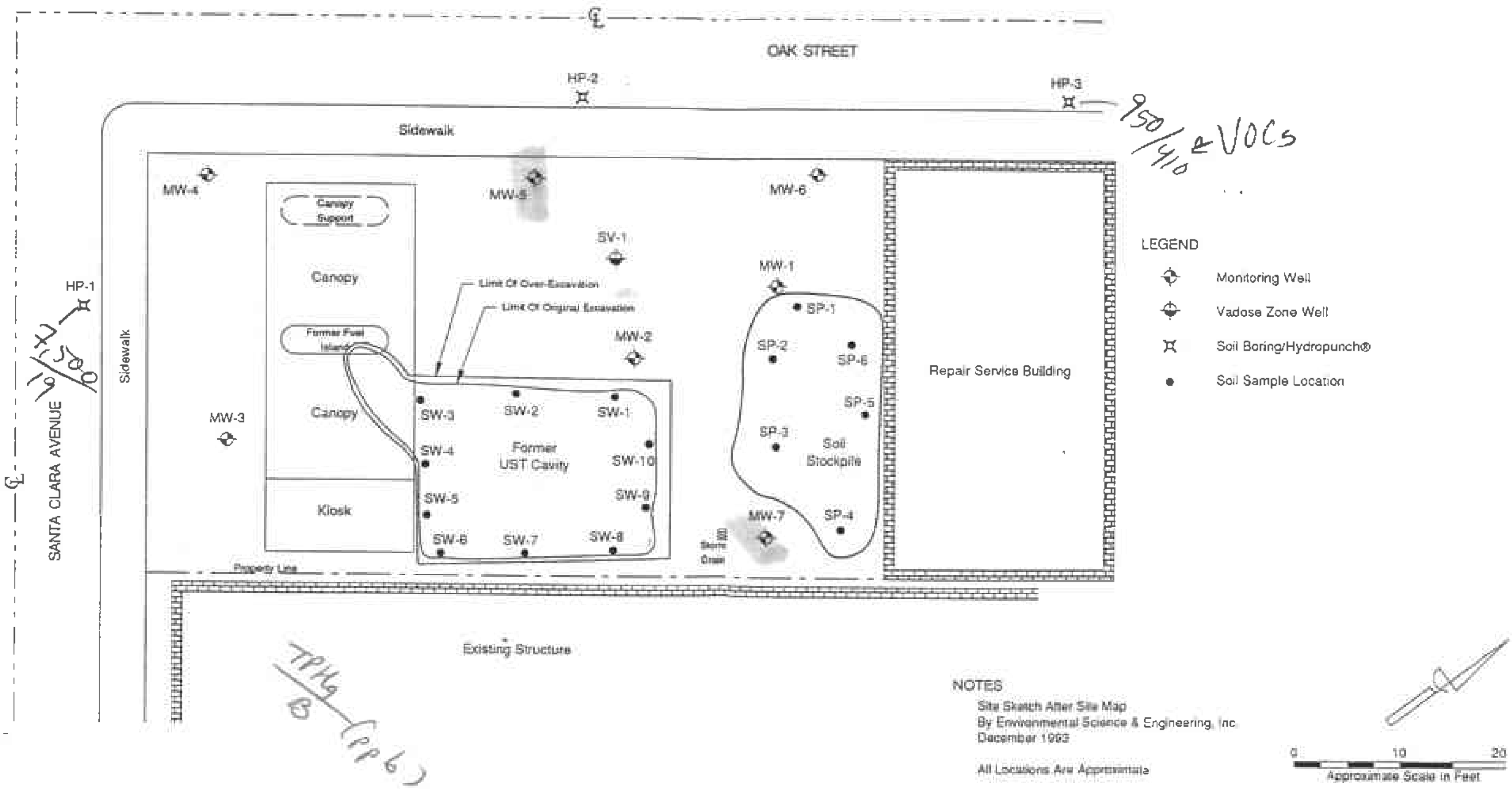
The interpretations and conclusions contained within this report represent our professional opinions. These opinions are based on currently available information and were developed in accordance with geologic, hydrogeologic, and engineering practices currently accepted at this time and for this site.



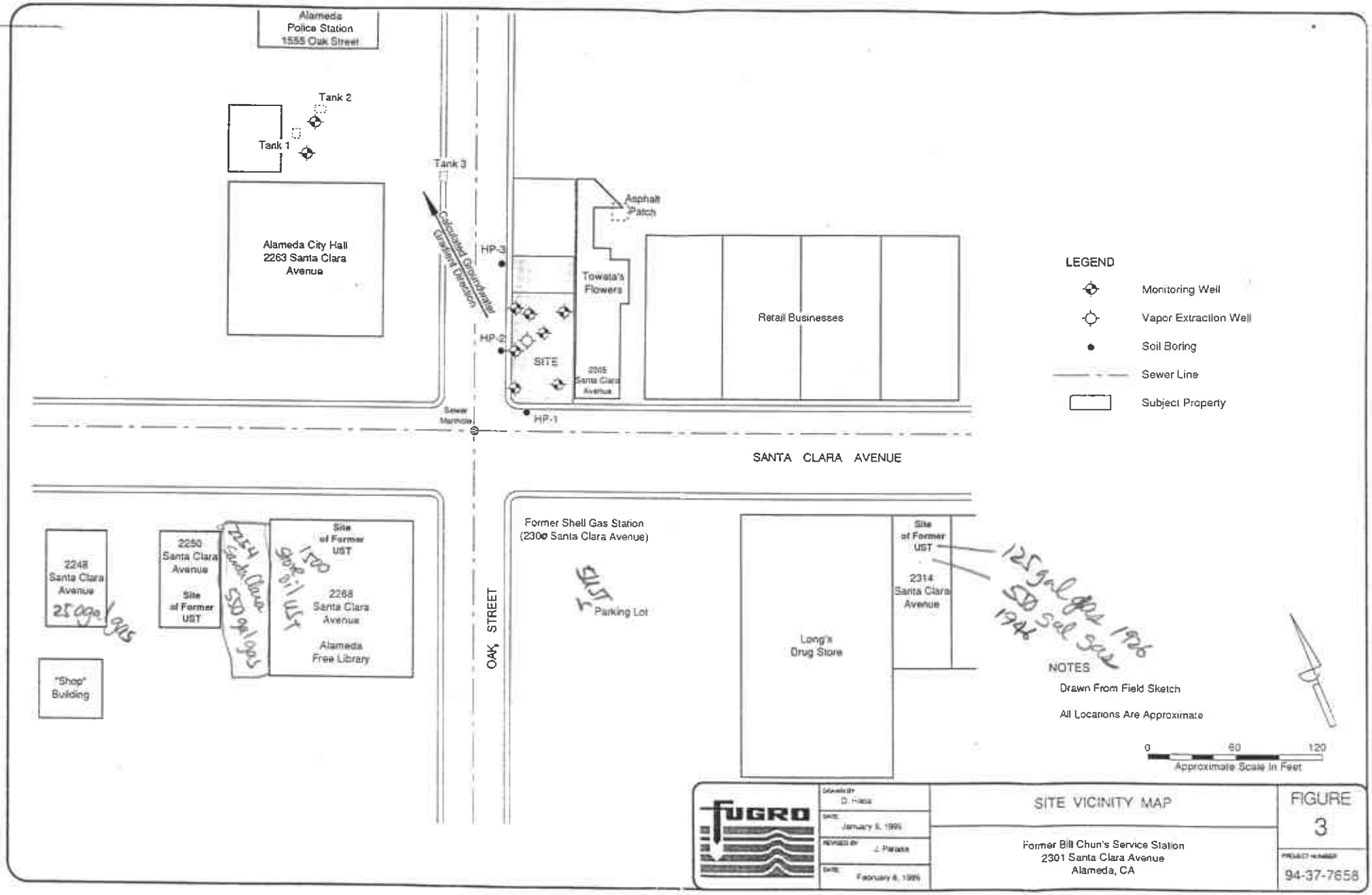
GENERAL NOTES:

BASE MAP FROM USGS
7.5 MINUTE TOPOGRAPHIC
OAKLAND EAST & WEST, CA

FUGRO	DRAWN BY: D. Hada DATE: January 5, 1995 REVISED BY: DATE:	SITE LOCATION MAP Former Bill Chun's Service Station 2301 Santa Clara Avenue Alameda, CA	FIGURE 1 PROJECT NUMBER: 94-37-7658



FUGRO	DRAWN BY: D. Hada DATE: August 4, 1994 REVISED BY: J. Paradis DATE: February 6, 1995	SITE MAP Former Bill Chun's Service Station 2301 Santa Clara Avenue Alameda, CA	FIGURE 2 PROJECT NUMBER: 94-37-7658



FUGRO

SITE VICINITY MAP

Former Bill Chun's Service Station
2301 Santa Clara Avenue
Alameda, CA

FIGURE 3

94-37-7658

TABLE 1

ANALYTICAL RESULTS: SOIL

FORMER BILL CHUN SERVICE STATION
2301 SANTA CLARA AVENUE, ALAMEDA, CALIFORNIA
(All results in parts per million)

Sample ID	Date Collected	Sample Depth (feet)	Total Petroleum Hydrocarbons		Aromatic Volatile Organics			
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes
SW-2	08/12/94	8	<	<	<	<	<	<
SW-4	08/12/94	8	<	<	<	<	<	<
SW-6	08/12/94	8	<	<	<	<	<	0.006
SW-10	08/12/94	8	<	<	<	<	<	<
HP-1/11	08/30/94	11	4,600	<	4.1	77	24	88
HP-2/11	08/30/94	11	<	<	<	<	<	<
HP-3/11	08/30/94	11	<	<	0.008	<	<	<
SV-1/9.5	08/30/94	9.5	8,400	<	37	330	170	830
SP-1-SP-3	08/12/94	SP	<	<	<	<	<	<
SP-4-SP-6	08/12/94	SP	<	<	<	<	<	0.006

NOTE: < = Below Practical Quatitation Reporting Limited per "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sties" (August 10, 1990). (PQL for BTEX = 0.005 ppm, TPH, as gasoline and diesel = 1.0 ppm.)

SP = Stockpile Sample

TABLE 2

ANALYTICAL RESULTS: GROUNDWATER

FORMER BILL CHUN SERVICE STATION
2301 SANTA CLARA AVENUE, ALAMEDA, CALIFORNIA
(All results in parts per billion)

Sample ID	Date Collected	Total Petroleum Hydrocarbons		Aromatic Volatile Organic Compounds (BTEX)				Halogenated Volatile Organic Compounds (HVOCs)
		as Gasoline (TPH-g)	as Diesel (TPH-d)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	
HP-1	08/30/94	7,500	<	19	98	15	53	<
HP-2	08/30/94	<	<	<	<	<	0.5	<
HP-3	08/30/94	950	<	410	2.0	5.0	9.0	1,2-DCA= 54

NOTE: < = Below Practical Quantitation Reporting Limits (PQL) per "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" (August 10, 1990). (PQL for BTEX = 0.5 ppb; TPH-g and TPH-d = 50 ppb).
SP = Stockpile Sample
1,2-DCA = 1,2-Dichloroethane

TABLE 3

VAPOR EXTRACTION PILOT TEST: EXTRACTION WELL DATA

FORMER BILL CHUN SERVICE STATION
2301 SANTA CLARA AVENUE, ALAMEDA, CALIFORNIA

Extraction Well	Time		Field Data			Laboratory Data					Comments
	Actual (H:MM)	Elapsed (H:MM)	Extraction Flow (scfm)	Extraction Well Vacuum (in. wc.)	PID TPH (ppmv)	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl-benzene (ppmv)	Total Xylenes (ppmv)	Comments
SV-1	14:30	0:00	0	0.0							Start of Test
	14:38	0:08	8	50.0	10,000						
	15:00	0:30	11	51.0	10,000						
	15:15	0:45	11	50.0	9,000						
	15:30	1:00	11	50.0	8,400						
	15:45	1:15	13	50.0	7,200						
	16:00	1:30	13	50.0	7,000	9,000	390	650	92	430	End of Test
MW-4	12:50	0:00	0	0.0							Start of Test
	13:00	0:10	18	50.0	10						End of Test
MW-6	13:14	0:00	0	0.0							Start of Test
	13:24	0:10	4	30.0	950						End of Test
MW-7	13:53	0:00	0	0.0							Start of Test
	14:00	0:07	3	35.0	10,000						End of Test

Notes:
H:MM = Hours:Minutes
scfm = Standard cubic feet per minute
in. wc. = Inches water column pressure
ppmv = Parts per million by volume
TPH = Total petroleum hydrocarbons as measured using a photoionization detector (PID)
TPH-g = Total petroleum hydrocarbons as gasoline

TABLE 4

VAPOR EXTRACTION PILOT TEST: RESPONSE WELL DATA

FORMER BILL CHUN SERVICE STATION
2301 SANTA CLARA AVENUE, ALAMEDA, CALIFORNIA

Extraction Well	Time		Pressures					Comments
	Actual (H:MM)	Elapsed (H:MM)	SV-1 (in. wc.)	MW-4 (in. wc.)	MW-5 (in. wc.)	MW-6 (in. wc.)	MW-7 (in. wc.)	
SV-1	14:30	0:00	0.0	0.000	0.000	0.000	0.000	Start of Test
	15:00	0:30	51.0	-0.010	0.180	-0.200	-0.050	
	15:15	0:45	50.0	-0.020	0.470	-0.170	-0.050	
	15:30	1:00	50.0	-0.020	0.210	-0.170	-0.050	
	15:45	1:15	50.0	-0.010	0.200	-0.170	-0.050	
	16:00	1:30	50.0	-0.010	0.210	-0.150	-0.050	End of Test
MW-4	13:02	0:00	0.000	0.0	0.000	0.000	0.000	Start of Test
	13:13	0:11	-0.020	-30.0	0.000	0.000	0.000	End of Test
MW-6	13:33	0:00	0.000	0.000	0.000	0.0	0.000	Start of Test
	13:43	0:10	-0.020	-0.070	0.040	-30.0	0.320	End of Test
MW-7	14:03	0:00	0.000	0.000	0.000	0.000	0.0	Start of Test
	14:10	0:07	-0.030	-0.020	0.260	-0.370	-35.0	End of Test

Notes: H:MM = Hours:Minutes
in. wc. = Inches water column pressure

TABLE 5

FREE PRODUCT RECOVERY DATA

FORMER BILL CHUN SERVICE STATION
2301 SANTA CLARA AVENUE, ALAMEDA, CALIFORNIA

Monitoring Well-5				
Date	Depth to Water (feet)	Depth to Free Product (feet)	Free Product Thickness (feet)	Free Product Recovered (gallons)
8-12-94	9.81	9.23	0.58	0.10
8-19-94	9.60	9.27	0.33	0.05
8-26-94	9.42	9.30	0.12	0.01
9-6-94	9.49	9.33	0.16	0.01
9-16-94	9.37	9.33	0.04	0.01
11-9-94	8.58	8.56	0.02	0.10
12-20-94	8.77	8.76	0.01	0.01

Total free product recovered to date: 0.29-gallons

Monitoring Well MW-7				
Date	Depth to Water (feet)	Depth to Free Product (feet)	Free Product Thickness (feet)	Free Product Recovered (gallons)
8-12-94	9.84	9.71	.013	0.05
8-19-94	9.73	9.63	0.10	0.02
8-26-94	9.64	9.63	0.01	0.01
9-6-94	9.70	---	0.00	0.00
9-16-94	9.69	9.68	0.01	0.01
11-9-94	8.57	8.52	0.05	0.10
12-20-94	9.08	8.67	0.41	0.02

Total free product recovered to date: 0.21-gallons

APPENDIX A

STANDARD OPERATING PROCEDURES

FUGRO WEST, INC.
STANDARD OPERATING PROCEDURES
RE: SOIL BORING SAMPLING
SOP-1

During drilling with a hollow-stem auger or air-rotary rig, soil samples are typically collected in thin-walled brass or stainless steel tubes 6 inches long by 2 inches outside diameter. Three of the tubes are set, typically, in an 18-inch-long split-barrel sampler. The sampler is usually lowered into the open borehole attached either to the end of drilling pipe or on a wire-line hammer device.

When possible, the split-barrel sampler is driven its entire length, either hydraulically or by repeatedly pounding a 140-pound hammer using a 30-inch drop. The number of drops (blows) used to drive the sampler is recorded on the boring log. The sampler is extracted from the borehole and the tubes containing the soil samples are removed. Upon removal from the sampler, the ends of the lowermost tube are typically covered with aluminum foil or "Teflon" sheets and plastic caps. The sample may be extruded from the tube and sealed within another appropriate cleaned sample container (e.g., glass jar). The sealed sample is labeled and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. These procedures minimize the potential for cross-contamination and volatilization of volatile organic compounds (VOC) prior to chemical analysis.

Material from one of the other tubes is analyzed in the field, when required, using either a portable photoionization detector (PID) or equivalent analytical instrument. The purpose of this field analysis is to qualitatively determine the presence or absence of hydrocarbons. The soil sample is enclosed in a container (eg., plastic bag) to allow for some volatilization of VOC. The PID is then used to measure the concentrations of hydrocarbons within the container headspace. The data is recorded on the boring logs at the depth corresponding to the sampling point.

Any remaining soil collected from the sampler at that interval is described geologically using the USCS or other appropriate classification system) on a boring log. All drilling and sampling equipment are either steam-cleaned or washed prior to use at each site and between boreholes to minimize the potential for cross-contamination. Sampling equipment is also cleaned between samples.

FUGRO WEST, INC
STANDARD OPERATING PROCEDURES
RE: SOIL EXCAVATION AND SAMPLING
SOP-2

Excavation and subsequent soil sampling is performed under the direction of a registered geologist or civil engineer. To reduce the potential for cross-contamination, all excavation equipment is either steam cleaned or washed prior to use and between excavations. Soil samples for chemical analysis are collected in cleaned, thin-walled brass tubes of varying diameters and lengths (e.g., 6 inches long by 2 inches outside diameter) or other appropriate cleaned sample container. If used, one tube may be set in a 2-inch inside diameter, hand-driven sampler. To reduce the potential for cross-contamination between samples, the sampler is washed in a solution and doubly rinsed between each sampling event.

Small amounts of soils recovered in the sampling tubes are sealed for later screeningwith either a portable photoionization detector, flame ionization detector, or an explosimeter. Soils recovered from the samplers are also used for description of the excavated materials. The sample to be analyzed is sealed, labeled and refrigerated for delivery, under strict chain-of-custody, to the laboratory. These procedures minimize the potential for cross-contamination and volitilization of volatile organic compounds prior to chemical analysis.

In the event the soil samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on ice in a cooler, such as when in the field, or in a refrigerator at Fugro's office.

FUGRO WEST, INC.
STANDARD OPERATING PROCEDURES
RE: SOIL CLASSIFICATION
SOP-3

Soil samples are classified according to the Unified Soil Classification System. Representative portions of the samples may be submitted under strict chain-of-custody to an analytical laboratory for further examination and verification of the in-field classification, and analysis of soil mechanical and/or petrophysical properties. The soil types are indicated on logs of either excavations or borings together with depths corresponding to the sampling points, and other pertinent information.

FUGRO WEST, INC.
STANDARD OPERATING PROCEDURES
SAMPLE IDENTIFICATION AND CHAIN-OF-CUSTODY PROCEDURES
SOP-4

Sample identification and chain-of-custody procedures ensure sample integrity, and document sample possession from the time of collection to its ultimate disposal. Each sample container submitted for analysis is labeled to identify the job number, date, time of sample collection, a sample number unique to the sample, any name(s) of on-site personnel and any other pertinent field observations also recorded on the field excavation or boring log.

Chain-of-custody forms are used to record possession of the sample from time of collection to its arrival at the laboratory. During shipment, the person with custody of the samples will relinquish them to the next person by signing the chain-of-custody form(s) and noting the date and time. The sample-control officer at the laboratory will verify sample integrity, correct preservation, confirm collection in the proper container(s), and ensure adequate volume for analysis.

If these conditions are met, the samples will be assigned unique laboratory log numbers for identification throughout analysis and reporting. The log numbers will be recorded on the chain-of-custody forms and in the legally-required log book maintained in the laboratory. The sample description, date received, client's name, and any other relevant information will also be recorded.

In addition to routine instrument calibration, replicates, spikes, blanks, spiked blanks, and certified reference materials are routinely analyzed at method-specific frequencies to monitor precision and bias. Additional components of the laboratory Quality Assurance/Quality Control program include:

1. Participation in state and federal laboratory accreditation/certification programs;
2. Participation in both U.S. EPA Performance Evaluation studies (WS and WP studies) and inter-laboratory performance evaluation programs;
3. Standard operating procedures describing routine and periodic instrument maintenance;
4. "Out-of-Control"/Corrective Action documentation procedures; and,
5. Multi-level review of raw data and client reports.

FUGRO WEST, INC.
STANDARD OPERATING PROCEDURES
RE: VAPOR SAMPLING: "TEDLAR" BAG SAMPLING TECHNIQUE
SOP-9

Prior to vapor sampling, the vacuum system must reach a stabilized air flow (cubic feet per minute) for approximately 15 minutes. Prior to the actual collection of the vapor sample, the following data is recorded: air flow, temperature, and pressure at collection ports and gauges.

The sampling equipment consists of a "Tedlar" bag (available in 1, 3, 5, and 10 liter sizes), a diaphragm pump, and 1/4-inch-diameter polyethylene tubing (approximately 1 foot long).

The sampling ports are brass connections, fitted with a silicone septum, and threaded into a tapped hole in the system piping. The sampling procedure requires one end of the tubing be slipped over the sampling port and the other end over the diaphragm pump to acquire an air-tight connection. The sampling pump is purged for 1 minute with the extracted vapor to be sampled. Following purging, the discharge of the pump is then diverted through a two-way valve into the "Tedlar" bag, which should be filled to 3/4 of volume capacity. Caution should be taken not to overfill the sampling bag. The sample is placed in a non-refrigerated dry cooler with sufficient packing to eliminated damage during transport. Cooling samples will cause condensation of moisture within the sample, thereby distorting laboratory analysis.

For quality control purposes, a duplicate vapor sample should be collected from each sampling port. This sample is then put on hold at the laboratory pending initial analysis. To ensure quality control and minimize the potential for cross-contamination prior to and during sampling, the diaphragm pump is thoroughly purged for approximately 5 minutes with nitrogen or clean air (i.e., compressed clean air). A "blank" sample of the discharged air is captured in a "Tedlar" bag at the end of the purging procedure and may be analyzed to ensure the purging was effective.

To minimize the potential for cross-contamination between air samples, the polyethylene tubing, if not sample dedicated, is thoroughly cleaned and rinsed.

Vapor samples are subject to very limited holding times, typically 48 hours. Thus, care must taken to avoid delays in submittal of vapor samples to the laboratory. In the event the vapor samples cannot be submitted to the analytical laboratory on the same day they are collected, they are to be temporarily stored in the dry, non-refrigerated, packed cooler until the very first opportunity for submittal well within the required holding time, accounting for the time needed for shipment to and receipt by the laboratory.

FUGRO WEST, INC.
STANDARD OPERATING PROCEDURES
RE: PILOT-SCALE SOIL VAPOR EXTRACTION TESTING
SOP-13

The purpose of performing a soil vapor extraction test (SVET) is to acquire site-specific data which is necessary for the design of a full-scale system. Specifically, the data acquired is used to identify or estimate the following parameters:

- the quantity of vapor extraction wells necessary to remediate an environmentally-impacted area
- the magnitude of the extraction vacuum necessary to remediate an environmentally-impacted area
- the flow rate that will be generated by the given extraction vacuum
- the magnitude of the concentration of petroleum hydrocarbons in the soil vapor during operation of a full-scale SVET system

In order to assess these parameters, the objectives of the SVET procedures are: (1) estimate the radius of influence, (2) measure the relationship between extraction vacuum and extraction flow rate, and (3) characterize the concentration of petroleum hydrocarbons in the soil vapor.

In order to experimentally quantify the radius of influence, Aegis' field technician uses an SVET system to extract soil vapor from an extraction point (a well or probe) and measures the resulting vacuum at several monitoring points (additional wells or monitoring probes). Typically the wells or probes used in the SVET have screened intervals in the vadose zone, within the environmentally-impacted region; however, ground-water extraction and monitoring wells can also be used.

In order to assess the relationship between extraction vacuum and flow-rate at a particular location, Fugro's field technician uses the SVET system to extract soil vapor from an extraction point at various vacuums and measures the resulting flow rate (ability to alter extraction vacuum varies depending on the SVET system used for the test).

In order to characterize the concentration of petroleum hydrocarbons in the extracted soil vapor, the technician collects a sample of the soil vapor which is then analyzed by a laboratory. Fugro's standard operating procedure (SOP) for soil vapor sample collection is included with this attachment.

Data analysis includes calculating flow rates from pitot tube differential pressures or from direct-reading anemometers (which measure velocity), and estimating the mass removal rate for TPH during the SVET. Data Analysis is described in more detail below.

Data Analysis

The assumptions used in data analysis include the following:

- The vacuum, volumetric flow rate, and temperature of the soil vapor were relatively constant during the time interval represented in the data analysis.

- The concentration of TPH, as gasoline, in the soil vapor was relatively constant during the time interval represented in the data analysis.

- The molecular weight of TPH, as gasoline, is equal to that of hexane (86 grams/mole)

Sample Calculations:

Example test data is used in the sample below.

M = Mass removal rate for TPH, as gasoline, in pounds per day (lbs/day)
Q = Flow Rate in standard cubic feet per minute (scfm) = 35
C = Concentration of TPH, as gasoline, in milligrams per cubic meter (mg/M^3)
= 31,700
Conv. = Conversion factors in minute-M^3-lbs per cf-mg-day = 8.9897 E-5

M = (35)(31,700)(8.9897 E-5) = 100 lbs/day

FUGRO WEST, INC.
STANDARD OPERATING PROCEDURE
RE: HYDROPUNCH SAMPLING
SOP-14

Starting from the capillary fringe, the hydropunch is pushed so that the tip is approximately 3 feet below the water table. The sleeve protecting the 4-foot PVC screened interval is then pulled up 3.5 feet, exposing the screened interval to the capillary fringe and the saturated zone. The system is left undisturbed for approximately 15 minutes to allow formation water to infiltrate the screen, and fines to settle out.

The sampling equipment consists of either a "Teflon" or stainless steel bailer. In general and depending on the intended laboratory analysis, 40-milliliter glass, volatile organic analysis (VOA) vials, with "Teflon" septa, are used as sample containers.

The groundwater sample is decanted into each VOA vial in such a manner that there is no meniscus at the top of the vial. A cap is quickly secured to the top of the vial. The vial is then inverted and gently tapped to see if air bubbles are present. If none are present, the vial is labeled and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. Label information includes a unique sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

For quality control purposes, a field blank may be prepared in the field. The field blank is prepared after a bailer has been either steam cleaned or properly washed, prior to use in the next well, and is analyzed along with the other samples. The field blank analysis demonstrates the effectiveness of the in-field cleaning procedures to prevent cross-contamination.

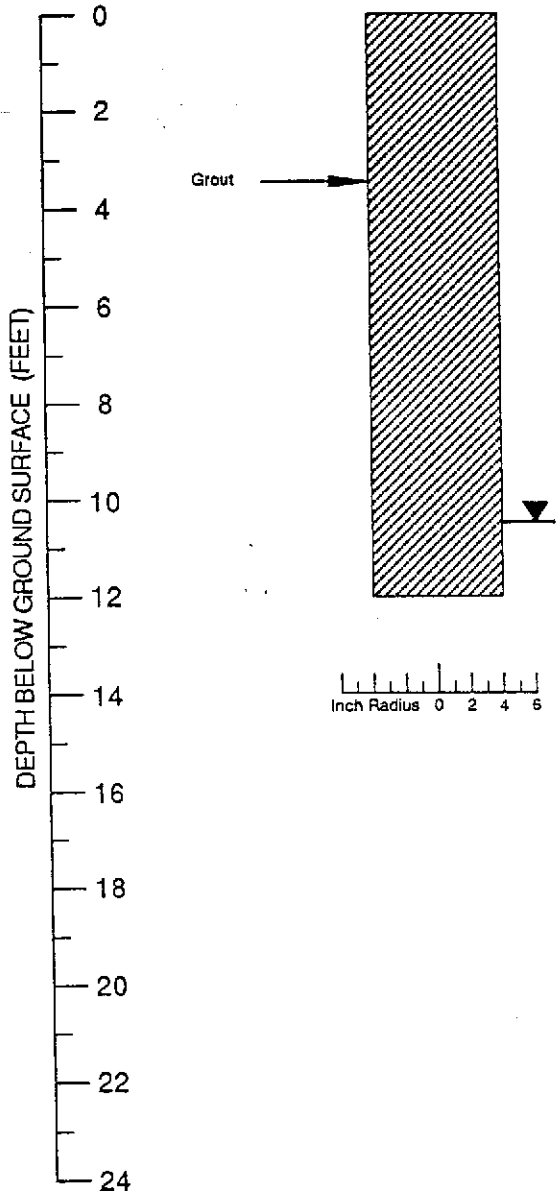
To minimize the potential for cross-contamination between wells, all well development and water sampling equipment not dedicated to a well is either steam cleaned or properly washed between use.

In the event the water samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on ice in a cooler, such as when in the field, or in a refrigerator at Fugro's office.

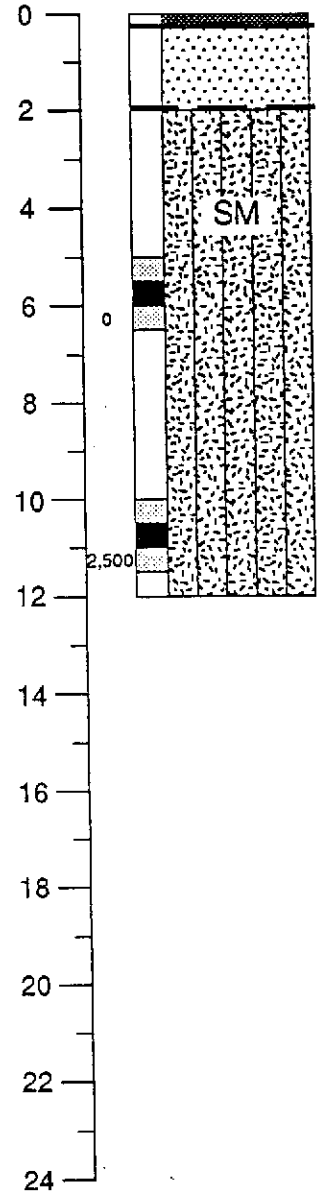
APPENDIX B

BORING LOGS AND WELL CONSTRUCTION DETAILS

BORING CONSTRUCTION DETAIL



GRAPHIC LOG



DESCRIPTION

Asphalt

Base Fill Material

Brown silty SAND, loose, dry, no odor

Brown silty SAND, loose, moist, no odor

Cuttings are grey, strong petroleum odor

Greyish green silty SAND, wet, semi loose, strong petroleum odor, possible free product on water

Total depth = 12 feet

Logged by:	S. Osborn	Drilling Company:	West Hazmat	Completion Time:	13:20 hrs
Project Mgr:	S. Boudreau	Drilling Method:	Hollow Stem Auger	Type of Sampler:	Split Spoon
Date Drilled:	August 30, 1994	Driller:	Gene Nunes	TD (Total Depth):	12'

Explanation

- Water level in completed well
- First water found during drilling
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Continuous Core

Contacts:

- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity) 1K= primary, 2K= secondary
- NR — No Recovery

Hydropunch 1

Bill Chun's Service Station
2301 Santa Clara Avenue
Alameda, Ca

Page: 1 of 1

TUGRO

Drawn By: D. Hada

Date: August 31, 1994

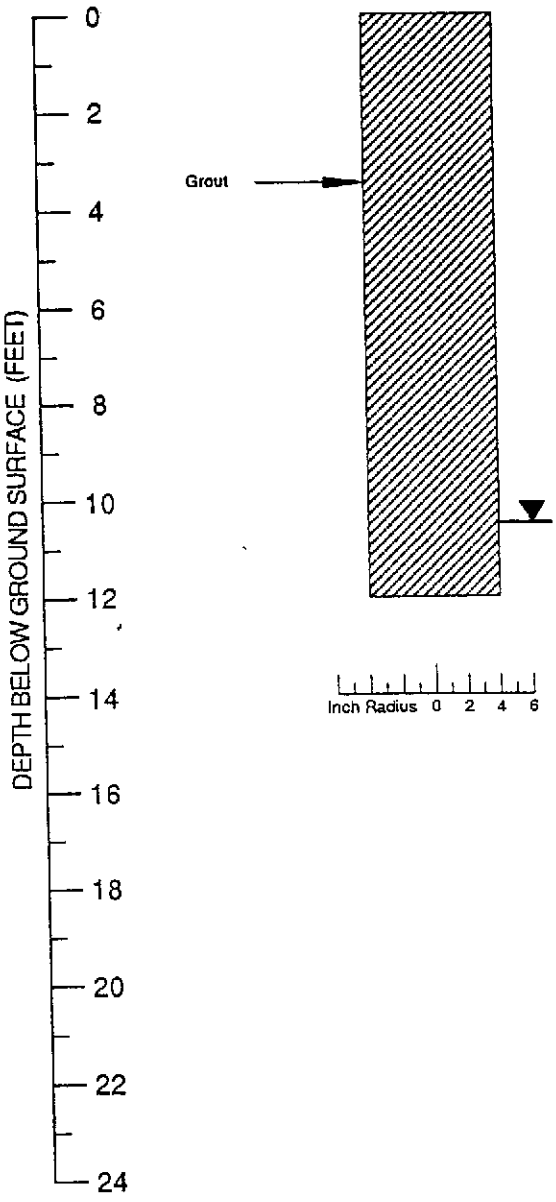
Revised By:

Date:

Well Number: HP-1

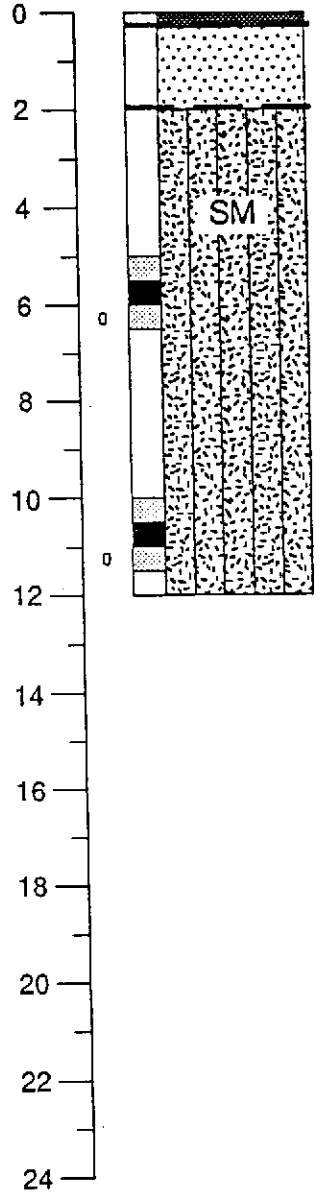
Job Number: 94-37-7622

BORING CONSTRUCTION DETAIL



GRAPHIC LOG

PID (ppmv)



DESCRIPTION

Asphalt

Base Fill Material

Brown silty SAND, loose, dry, no odor

Brown silty SAND, semi loose, damp, no odor

Brown silty SAND, semi loose, dense, wet, no odor

Total depth = 12 feet

Logged by:	S. Osborn	Drilling Company:	West Hazmat	Completion Time:	12:15 hrs
Project Mgr:	S. Boudreau	Drilling Method:	Hollow Stem Auger	Type of Sampler:	Split Spoon
Date Drilled:	August 30, 1994	Driller:	Gene Nunes	TD (Total Depth):	12'

Explanation

- Water level in completed well
- First water found during drilling
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Continuous Core

Contacts:

- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity) 1K= primary, 2K= secondary
- NR — No Recovery

Hydropunch 2

Bill Chun's Service Station
2301 Santa Clara Avenue
Alameda, Ca

FUGRO

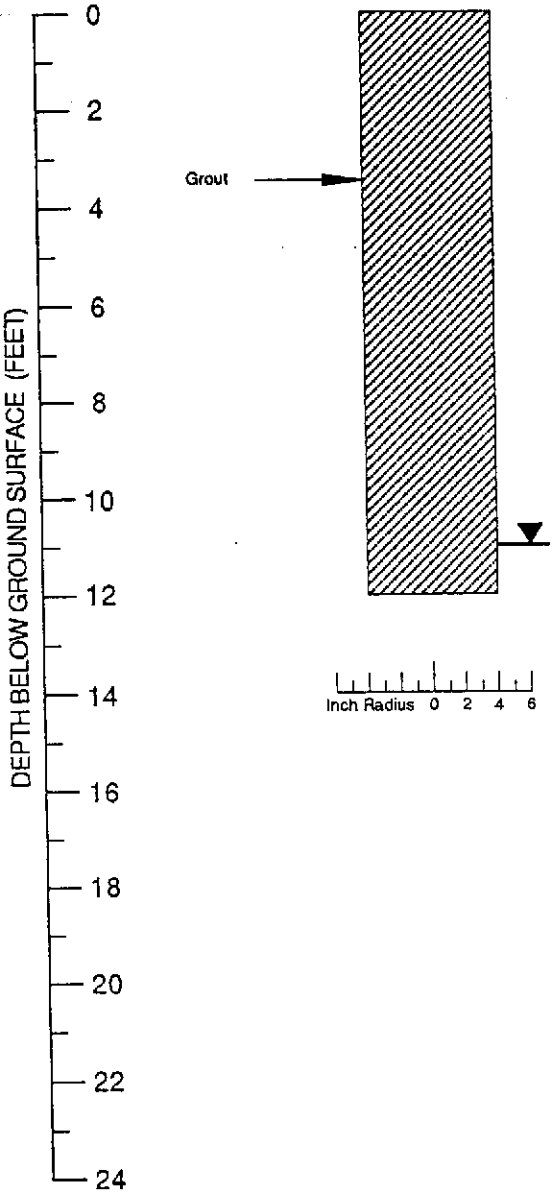
Drawn By:	D. Hada
Date:	August 31, 1994
Revised By:	
Date:	

Page: 1 of 1

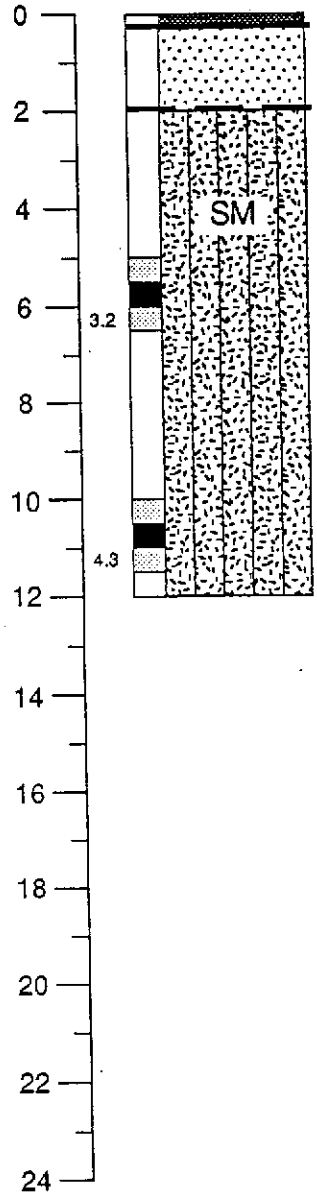
Well Number: HP-2

Job Number: 94-37-7622

BORING CONSTRUCTION DETAIL



GRAPHIC LOG



DESCRIPTION

Asphalt

Base Fill Material

Brown silty SAND, loose, fine grained, no odor

Brown silty SAND, fine grained, loose, no odor

Brown silty SAND, semi loose, dense, wet, no odor

Total depth = 12 feet

Logged by:	S. Osborn	Drilling Company:	West Hazmat	Completion Time:	11:10 hrs
Project Mgr:	S. Boudreau	Drilling Method:	Hollow Stem Auger	Type of Sampler:	Split Spoon
Date Drilled:	August 30, 1994	Driller:	Gene Nunes	TD (Total Depth):	12'

Explanation

- Water level in completed well
- First water found during drilling
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Continuous Core

Contacts:

- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity) 1K= primary, 2K= secondary
- NR — No Recovery

Hydropunch 3

Bill Chun's Service Station
2301 Santa Clara Avenue
Alameda, Ca

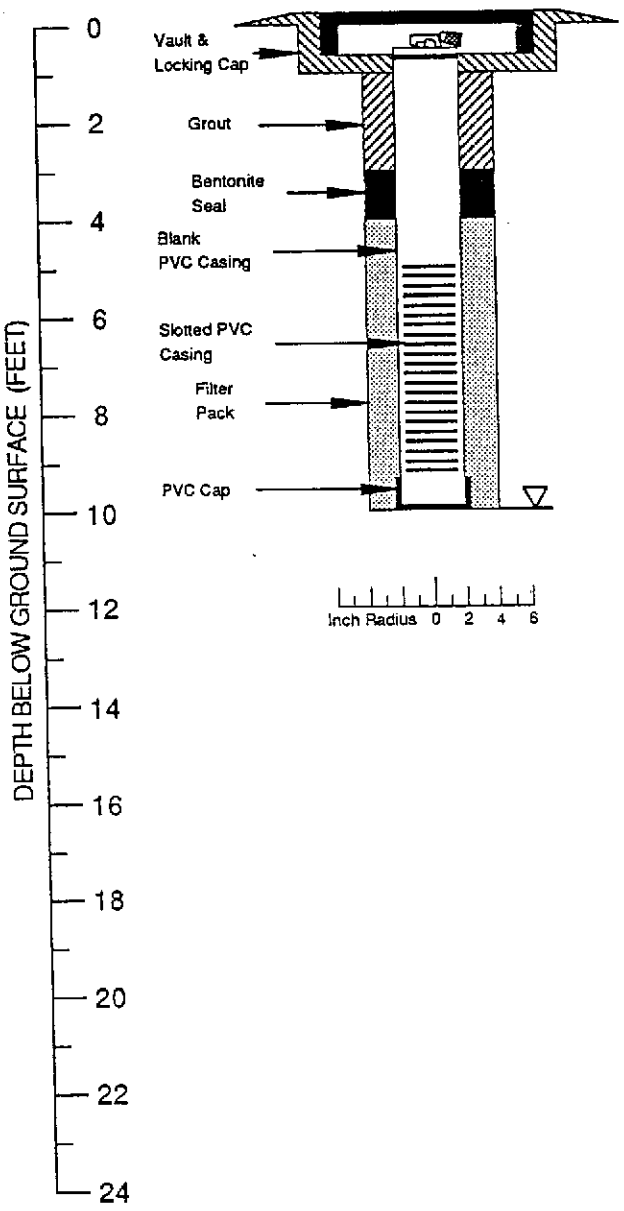
Page: 1 of 1

Well Number: HP-3

Job Number: 94-37-7622

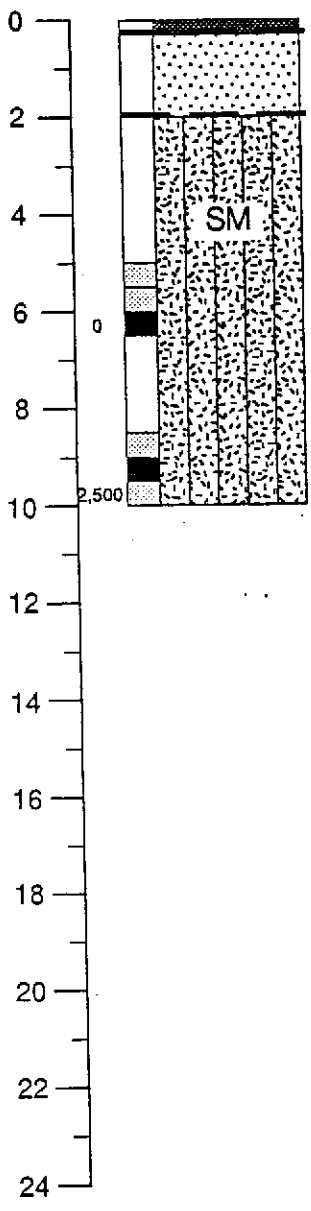
Drawn By:	D. Hada
Date:	August 31, 1994
Revised By:	
Date:	

WELL CONSTRUCTION DETAIL



GRAPHIC LOG

PID (ppmv)



DESCRIPTION

Asphalt

Base Fill Material

Brown silty SAND, loose, fine grained, no odor

Brown to grey silty SAND, fine grained, semi loose, damp, no odor

Grey to green silty SAND, fine grained, wet, loose, strong petroleum odor

Total depth = 10 feet

Logged by:	S. Osborn	Drilling Company:	West Hazmat	Completion Time:	09:59 hrs
Project Mgr:	S. Boudreau	Drilling Method:	Hollow Stem Auger	Type of Sampler:	Split Spoon
Date Drilled:	August 30, 1994	Driller:	Gene Nunes	TD (Total Depth):	10'

Explanation

- Water level in completed well
- First water found during drilling
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Continuous Core

Contacts:

- ——— Solid where certain
- .... Dotted where approximate
- - - Dashed where uncertain
- ////// Hachured where gradational
- est K Estimated permeability (hydraulic conductivity) 1K= primary, 2K= secondary
- NR No Recovery

Vadose Well 1

Bill Chun's Service Station
2301 Santa Clara Avenue
Alameda, Ca

FUGRO

Drawn By: D. Hada
Date: August 31, 1994
Revised By:
Date:

Page: 1 of 1

Well Number: SV-1

Job Number: 94-37-7622

APPENDIX C

ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORMS: SOIL

Excelchem
Environmental Labs

4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Stephen Boudreau Phone #: (415) 296-1041

Company/Address: 44 Montgomery St. Suite 1010 SF. Fugro West FAX #: 296-0944

Project Number: 94-37-7622 P.O.#: Project Name: B.11 Chevron Service station

Project Location: 2301 Santa Clara Ave Alameda Sampler Signature:

Sample ID	Sampling DATE	Sampling TIME	Container VOA	Container SLEEVE	Container 1L GLASS	Container 1L PLASTIC	Method Preserved HCl	Method Preserved HNO3	Method Preserved ICE	Method Preserved NONE	Matrix WATER	Matrix SOIL	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015)	TPH as Oil (8015)	Total Oil & Grease (5520 B/E,F)	Total Oil & Grease IR (5520 B/E,F,C)	96 - Hour Fish Bioassay	EPA 601/8010	EPA 602/8020	EPA 615/8150	EPA 608/8080 - Pesticides	EPA 608/8080-PCBs	EPA 624/8240	EPA 625/8270	ORGANIC LEAD	Reactivity, Corrosivity, Ignitibility	W.E.T. (Y) / TOTAL (Y) CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	Cd, Cr, Pb, Zn, Ni					RUSH SERVICE (12 hr) or (24 hr)	EXPEDITED SERVICE (48 hr) or (1 wk)	STANDARD SERVICE (2wk)
HP-1/6	8-30-94			X						X		X		X	X				X																		
HP-1/11																																						
HP-2/6														X	X				X																		
HP-2/11																																						
HP-3/6														X	X				X																		
HP-3/11																																						
SV-1/6.5														X	X				X																		
SV-1/9.5																																						

TAT

ANALYSIS REQUEST

Relinquished by:	Date	Time	Received by:
	8/31/94	12:25	Mindy Somers
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	8/31/94	12:55	Mindy Somers

Remarks: Please Fax copy of results to Steve Osborn Fugro West Roseville (916) 786-7030

Bill To:

Excelchem
Environmental Labs

4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Stephen Boudreau Phone #: (415) 296-1041

Company/Address: 44 Montgomery St. Suite 1010 SF. Fugro West FAX #: 296-0944

Project Number: 94-37-7622 P.O.#: Project Name: B.11 Chevron Service station

Project Location: 2301 Santa Clara Ave Alameda Sampler Signature:

Sample ID	Sampling DATE	Sampling TIME	Container VOA	Container SLEEVE	Container 1L GLASS	Container 1L PLASTIC	Method Preserved HCl	Method Preserved HNO_3	Method Preserved ICE	Method Preserved NONE	Matrix WATER	Matrix SOIL
HP-1/6	8-30-94			✓						✓		✓
HP-1/11				✓						✓		✓
HP-2/6				✓						✓		✓
HP-2/11				✓						✓		✓
HP-3/6				✓						✓		✓
HP-3/11				✓						✓		✓
SV-1/6.5				✓						✓		✓
SV-1/9.5				✓						✓		✓

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015)	TPH as Oil (8015)	Total Oil & Grease (5520 B/E,F)	Total Oil & Grease IR (5520 B/E,F,C)	96 - Hour Fish Bioassay	EPA 601/8010	EPA 602/8020	EPA 615/8150	EPA 608/8080 - Pesticides	EPA 608/8080-PCBs	EPA 624/8240	EPA 625/8270	ORGANIC LEAD	Reactivity, Corrosivity, Ignitibility	W.E.T. (✓)	TOTAL (✓)	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	Cd, Cr, Pb, Zn, Ni	TAT
																					50 89 44 51	
	X	X					X														50 89 44 52	RUSH SERVICE (12 hr) or (24 hr)
																					50 89 44 53	EXPEDITED SERVICE (48 hr) or (1 wk) ✓
	X	X					X														50 89 44 54	STANDARD SERVICE (2wk)
																					50 89 44 55	
	X	X					X														50 89 44 56	
																					50 89 44 57	
	X	X					X														50 89 44 58	
																					~~50 89 44 59~~	

Relinquished by: [signature] Date 8/31/94 Time 12:25 Received by: Mindy Somers

Relinquished by: Date Time Received by:

Relinquished by: Date 8/31/94 Time 12:55 Received by Laboratory: Mindy Somers

Remarks: Please Fax copy of results to
Steve Osborn
Fugro West Roseville
(916) 786-7030

Bill To:

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Stephen Boudreau
FUGRO-WEST, INC.
44 Montgomery Street, #1010
San Francisco, CA. 94104

Project : 94-37-7622

Date Sampled : 08-30-94
Date Received: 08-31-94
TPHg Analyzed: 09-06-94
BTEX Analyzed: 09-06-94
TPHd Analyzed: 09-12-94
Matrix: Soil

	Benzene PPM	Toluene PPM	Ethyl-benzene PPM	Total Xylenes PPM	TPHg PPM	TPHd PPM
Reporting Limit:	3.5	3.5	3.5	3.5	350	20
SAMPLE Laboratory Identification:						
HP-1/11 S0894452	4.1	77	24	88	4600	ND
SV-1/9.5 S0894458	37	330	170	830	8400	ND

ppm = Parts per million = mg/Kg = milligram per Kilogram
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by modified EPA Method 8015, which utilizes a GC equipped with an FID.
TPHd–Total petroleum hydrocarbons as diesel are measured by extraction using EPA Method 3550 followed by modified EPA Method 8015 with direct sample injection into a GC equipped with a FID.

Laboratory Representative

09-13-94
Date Reported

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Stephen Boudreau
FUGRO-WEST, INC.
44 Montgomery Street, #1010
San Francisco, CA. 94104

Project : 94-37-7622

Date Sampled : 08-30-94
Date Received: 08-31-94
TPHg Analyzed: 09-06-94
BTEX Analyzed: 09-06-94
TPHd Analyzed: 09-12-94
Matrix: Soil

	Benzene PPM	Toluene PPM	Ethyl-benzene PPM	Total Xylenes PPM	TPHg PPM	TPHd PPM
Reporting Limit:	3.5	3.5	3.5	3.5	350	20
SAMPLE Laboratory Identification:						
HP-1/11 S0894452	4.1	77	24	88	4600	ND
SV-1/9.5 S0894458	37	330	170	830	8400	ND

ppm = Parts per million = mg/Kg = milligram per Kilogram
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

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TPHd–Total petroleum hydrocarbons as diesel are measured by extraction using EPA Method 3550 followed by modified EPA Method 8015 with direct sample injection into a GC equipped with a FID.

Laboratory Representative

09-13-94
Date Reported

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Stephen Boudreau
FUGRO-WEST, INC.
44 Montgomery Street, #1010
San Francisco, CA. 94104

Project : 94-37-7622

Date Sampled : 08-30-94
Date Received: 08-31-94
TPHg Analyzed: 09-02-94
BTEX Analyzed: 09-02-94
TPHd Analyzed: 09-08-94
Matrix: Soil

	Benzene PPM	Toluene PPM	Ethyl-benzene PPM	Total Xylenes PPM	TPHg PPM	TPHd PPM
Reporting Limit:	0.005	0.005	0.005	0.005	1.0	1.0
SAMPLE Laboratory Identification:						
HP-2/11 S0894454	ND	ND	ND	ND	ND	ND
HP-3/11 S0894456	0.008	ND	ND	ND	ND	ND

ppm = Parts per million = mg/Kg = milligram per Kilogram
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by modified EPA Method 8015, which utilizes a GC equipped with an FID.
TPHd–Total petroleum hydrocarbons as diesel are measured by extraction using EPA Method 3550 followed by modified EPA Method 8015 with direct sample injection into a GC equipped with a FID.

Laboratory Representative

09-13-94
Date Reported

Excelchem
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4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Steven Boudreau
Fugro West
44 Montgomery St. #1010
San Francisco, CA 94104

Project : 94-37-7622
Sample ID: HP-1/11
Lab ID : S0894452

Date Sampled : 8-30-94
Date Received : 8-31-94
Date Analyzed : 9-9-94
Matrix : Soil

Compound	Reporting Limit(ppm)	Measured Value(ppm)
Chloromethane	0.15	ND
Vinyl Chloride	0.15	ND
Bromomethane	0.15	ND
Chloroethane	0.15	ND
Trichlorofluoromethane	0.15	ND
1,1-Dichloroethene	0.15	ND
Methylene Chloride	0.15	ND
Trans-1,2-Dichloroethene	0.15	ND
Chloroform	0.15	ND
1,1-Dichloroethane	0.15	ND
1,1,1-Trichloroethane	0.15	ND
Carbon Tetrachloride	0.15	ND
1,2-Dichloroethane	0.15	ND
Trichloroethene	0.15	ND
1,2-Dichloropropane	0.15	ND
Bromodichloromethane	0.15	ND
Cis-1,3-Dichloropropene	0.15	ND
Trans-1,3-Dichloropropene	0.15	ND
1,1,2-Trichloroethane	0.15	ND
Tetrachloroethene	0.15	ND
Dibromochloromethane	0.15	ND
Chlorobenzene	0.15	ND
Bromoform	0.15	ND
1,1,2,2-Tetrachloroethane	0.15	ND
1,3-Dichlorobenzene	0.15	ND
1,4-Dichlorobenzene	0.15	ND
1,2-Dichlorobenzene	0.15	ND

ppm = Parts per million = mg/Kg = milligrams per kilogram
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Surrogate Recoveries

Bromochloromethane	= %108
4-Bromofluorobenzene	= %109
2-Bromochlorobenzene	= %10

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 8010 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

9-13-94

EXCELCHEM ENVIRONMENTAL LABS IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No. 1760)

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Steven Boudreau
Fugro West
44 Montgomery St. #1010
San Francisco, CA 94104
Project : 94-37-7622
Sample ID: HP-2/11
Lab ID : S0894454

Date Sampled : 8-30-94
Date Received : 8-31-94
Date Analyzed : 9-9-94
Matrix : Soil

Compound	Reporting Limit(ppm)	Measured Value(ppm)
Chloromethane	0.15	ND
Vinyl Chloride	0.15	ND
Bromomethane	0.15	ND
Chloroethane	0.15	ND
Trichlorofluoromethane	0.15	ND
1,1-Dichloroethene	0.15	ND
Methylene Chloride	0.15	ND
Trans-1,2-Dichloroethene	0.15	ND
Chloroform	0.15	ND
1,1-Dichloroethane	0.15	ND
1,1,1-Trichloroethane	0.15	ND
Carbon Tetrachloride	0.15	ND
1,2-Dichloroethane	0.15	ND
Trichloroethene	0.15	ND
1,2-Dichloropropane	0.15	ND
Bromodichloromethane	0.15	ND
Cis-1,3-Dichloropropene	0.15	ND
Trans-1,3-Dichloropropene	0.15	ND
1,1,2-Trichloroethane	0.15	ND
Tetrachloroethene	0.15	ND
Dibromochloromethane	0.15	ND
Chlorobenzene	0.15	ND
Bromoform	0.15	ND
1,1,2,2-Tetrachloroethane	0.15	ND
1,3-Dichlorobenzene	0.15	ND
1,4-Dichlorobenzene	0.15	ND
1,2-Dichlorobenzene	0.15	ND

ppm = Parts per million = mg/Kg = milligrams per kilogram
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Surrogate Recoveries
Bromochloromethane = %115
4-Bromofluorobenzene = %112
2-Bromochlorobenzene = %56

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 8010 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

9-13-94

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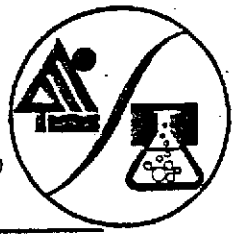

ANALYSIS REPORT

Attention: Mr. Steven Boudreau
Fugro West
44 Montgomery St. #1010
San Francisco, CA 94104
Project : 94-37-7622
Sample ID: SV-1/9.5
Lab ID : S0894458

Date Sampled : 8-30-94
Date Received : 8-31-94
Date Analyzed : 9-10-94
Matrix : Soil

Compound	Reporting Limit(ppm)	Measured Value(ppm)
Chloromethane	0.15	ND
Vinyl Chloride	0.15	ND
Bromomethane	0.15	ND
Chloroethane	0.15	ND
Trichlorofluoromethane	0.15	ND
1,1-Dichloroethene	0.15	ND
Methylene Chloride	0.15	ND
Trans-1,2-Dichloroethene	0.15	ND
Chloroform	0.15	ND
1,1-Dichloroethane	0.15	ND
1,1,1-Trichloroethane	0.15	ND
Carbon Tetrachloride	0.15	ND
1,2-Dichloroethane	0.15	ND
Trichloroethene	0.15	ND
1,2-Dichloropropane	0.15	ND
Bromodichloromethane	0.15	ND
Cis-1,3-Dichloropropene	0.15	ND
Trans-1,3-Dichloropropene	0.15	ND
1,1,2-Trichloroethane	0.15	ND
Tetrachloroethene	0.15	ND
Dibromochloromethane	0.15	ND
Chlorobenzene	0.15	ND
Bromoform	0.15	ND
1,1,2,2-Tetrachloroethane	0.15	ND
1,3-Dichlorobenzene	0.15	ND
1,4-Dichlorobenzene	0.15	ND
1,2-Dichlorobenzene	0.15	ND

ppm = Parts per million = mg/Kg = milligrams per kilogram
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Surrogate Recoveries		
	Bromochloromethane	= %110
	4-Bromofluorobenzene	= %61
	2-Bromochlorobenzene	= %10

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 8010 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

9-13-94

EXCELCHEM ENVIRONMENTAL LABS IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No. 1760)

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Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Steven Boudreau
Fugro West
44 Montgomery St. #1010
San Francisco, CA 94104
Project : 94-37-7622
Sample ID: HP-3/11
Lab ID : S0894456

Date Sampled : 8-30-94
Date Received : 8-31-94
Date Analyzed : 9-10-94
Matrix : Soil

Compound	Reporting Limit(ppm)	Measured Value(ppm)
Chloromethane	0.15	ND
Vinyl Chloride	0.15	ND
Bromomethane	0.15	ND
Chloroethane	0.15	ND
Trichlorofluoromethane	0.15	ND
1,1-Dichloroethene	0.15	ND
Methylene Chloride	0.15	ND
Trans-1,2-Dichloroethene	0.15	ND
Chloroform	0.15	ND
1,1-Dichloroethane	0.15	ND
1,1,1-Trichloroethane	0.15	ND
Carbon Tetrachloride	0.15	ND
1,2-Dichloroethane	0.15	ND
Trichloroethene	0.15	ND
1,2-Dichloropropane	0.15	ND
Bromodichloromethane	0.15	ND
Cis-1,3-Dichloropropene	0.15	ND
Trans-1,3-Dichloropropene	0.15	ND
1,1,2-Trichloroethane	0.15	ND
Tetrachloroethene	0.15	ND
Dibromochloromethane	0.15	ND
Chlorobenzene	0.15	ND
Bromoform	0.15	ND
1,1,2,2-Tetrachloroethane	0.15	ND
1,3-Dichlorobenzene	0.15	ND
1,4-Dichlorobenzene	0.15	ND
1,2-Dichlorobenzene	0.15	ND

ppm = Parts per million = mg/Kg = milligrams per kilogram
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Surrogate Recoveries		
	Bromochloromethane	= %114
	4-Bromofluorobenzene	= %110
	2-Bromochlorobenzene	= %53

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 8010 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

9-13-94

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Excelchem
Environmental Labs

4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Stephen Bardream
Phone #: (415) 296-1041
Company/Address: Flynn West
FAX #:
~~123~~ 44 Montgomery St. Suite 1010 SF.
Project Number: 94-37-7622
P.O.#:
Project Name: Bill Chun Service Station
Project Location: 2301 Santa Clara Ave Alameda CA
Sampler Signature:

Sample ID	Sampling DATE	Sampling TIME	Container VOA	Container SLEEVE	Container 1L GLASS	Container 1L PLASTIC	Method Preserved HCl	Method Preserved HNO3	Method Preserved ICE	Method Preserved NONE	Matrix WATER	Matrix SOIL	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015)	TPH as Oil (8015)	Total Oil & Grease (5520 B/E,F)	Total Oil & Grease IR (5520 B/E,F,C)	96 - Hour Fish Bioassay	EPA 601/8010	EPA 602/8020	EPA 615/8150	EPA 608/8080 - Pesticides	EPA 608/8080-PCBs	EPA 624/8240	EPA 625/8270	ORGANIC LEAD	Reactivity, Corrosivity, Ignitibility	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	Cd, Cr, Pb, Zn, Ni	W.E.T.(✓)	TOTAL(✓)	RUSH SERVICE (12 hr) or (24 hr)	EXPEDITED SERVICE (48 hr) or (1 wk)	STANDARD SERVICE (2wk)
UB ID																																						
279 SW-1	8/12-94			X						X		X																										
280 SW-2														X	X																						X
281 SW-3																																					
282 SW-4														X	X																						X
283 SW-5																																					
284 SW-6																																					
285 SW-7														X	X																						X
286 SW-8																																					
287 SW-9																																					
288 SW-10														X	X																						X

Relinquished by:	Date	Time	Received by:	RECEIVED AUG 30 1994
	8-18-94	13:30		
Relinquished by	Date	Time	Received by:	Ans'd
Relinquished by	Date	Time	Received by Laboratory:	
	8/18/94	13:30		

Remarks: Please send copy to
Steve Osborn
Flynn West Inc
10050 Mella Lane Suite 160
Roseville CA 95678

Bill To: Stephen Bardream

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Steve Boudreau
FUGRO-WEST, INC.
44 New Montgomery St., #1010
San Francisco, CA. 94104

Project : 94-37-7622

Date Sampled : 08-12-94
Date Received: 08-18-94
TPHg Analyzed: 08-24-94
BTEX Analyzed: 08-24-94
TPHd Analyzed: 08-26-94
Matrix: Soil

	Benzene PPM	Toluene PPM	Ethyl-benzene PPM	Total Xylenes PPM	TPHg PPM	TPHd PPM
Reporting Limit:	0.005	0.005	0.005	0.005	1.0	1.0
SAMPLE Laboratory Identification:						
SW-2 S0894280	ND	ND	ND	ND	ND	ND
SW-10 S0894288	ND	ND	ND	ND	ND	ND

ppm = Parts per million = mg/Kg = milligram per Kilogram
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by modified EPA Method 8015, which utilizes a GC equipped with an FID.
TPHd–Total petroleum hydrocarbons as diesel are measured by extraction using EPA Method 3550 followed by modified EPA Method 8015 with direct sample injection into a GC equipped with a FID.

Laboratory Representative

08-29-94
Date Reported

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Steve Boudreau
FUGRO-WEST, INC.
44 New Montgomery St., #1010
San Francisco, CA. 94104

Project : 94-37-7622

Date Sampled : 08-12-94
Date Received: 08-18-94
TPHg Analyzed: 08-26-94
BTEX Analyzed: 08-26-94
TPHd Analyzed: 08-26-94
Matrix: Soil

	Benzene PPM	Toluene PPM	Ethyl-benzene PPM	Total Xylenes PPM	TPHg PPM	TPHd PPM
Reporting Limit:	0.005	0.005	0.005	0.005	1.0	1.0
SAMPLE Laboratory Identification:						
SW-4 S0894282	ND	ND	ND	ND	ND	ND
SW-6 S0894285	ND	ND	ND	0.006	ND	ND

ppm = Parts per million = mg/Kg = milligram per Kilogram
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by modified EPA Method 8015, which utilizes a GC equipped with an FID.
TPHd–Total petroleum hydrocarbons as diesel are measured by extraction using EPA Method 3550 followed by modified EPA Method 8015 with direct sample injection into a GC equipped with a FID.

Laboratory Representative

08-29-94
Date Reported

EXCELCHEM ENVIRONMENTAL LABS IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No. 1760)

Excelchem
Environmental Labs

4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: John Somers
Phone #:
Company/Address:
FAX #:
Project Number: 94-37-7622
P.O.#:
Project Name: Bill Chan Service Station
Project Location:
Sampler Signature:

Sample ID	Sampling DATE	Sampling TIME	Container VOA	Container SLEEVE	Container 1L GLASS	Container 1L PLASTIC	Method Preserved HCl	Method Preserved HNO3	Method Preserved ICE	Method Preserved NONE	Matrix WATER	Matrix SOIL
SP-1-SP-3	8/12/94			✓					✓			✓
SP-4-SP-6	8/12/94			✓					✓			✓

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015)	TPH as Oil (8015)	Total Oil & Grease (5520 B/E,F)	Total Oil & Grease IR (5520 B/E,F,C)	96 - Hour Fish Bioassay	EPA 601/8010	EPA 602/8020	EPA 615/8150	EPA 608/8080 - Pesticides	EPA 608/8080-PCBs	EPA 624/8240	EPA 625/8270	ORGANIC LEAD	Reactivity, Corrosivity, Ignitibility	CAM - 17 Metals	EPA - Priority Pollutant Metals	W.E.T. (-) TOTAL (✓) LEAD(7420/7421/239.2) TOTAL	Cd, Cr, Pb, Zn, Ni
															✓			✓	
															✓			✓	

TAT: RUSH SERVICE (12 hr) or (24 hr) | EXPEDITED SERVICE (48 hr) or (1 wk) | STANDARD SERVICE (5 day) ✓

Relinquished by	Date	Time	Received by	Remarks
Mindy Somers	8/18/94		Express IT / John Kay	5 DAY
Relinquished by	Date	Time	Received by	
Relinquished by	Date 8/19/94	Time 9:10	Received by Laboratory	Bill To: Excelchem

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention:	Mr. Steve Boudreau	Date Sampled:	8-12-94
	FUGRO-WEST, INC.	Date Received:	8-18-94
	44 New Montgomery St., #1010	TPHg Analyzed:	8-26-94
	San Francisco, Ca. 94104	BTEX Analyzed:	8-26-94
Project :	94-37-7622	Matrix:	Soil

	Benzene PPM	Toluene PPM	Ethyl-benzene PPM	Total Xylenes PPM	TPHg PPM
Reporting Limit:	0.005	0.005	0.005	0.005	1.0
SAMPLE Laboratory Identification:					
SP-1-SP-3 S0894289	ND	ND	ND	ND	ND
SP-4-SP-6 S0894290	ND	ND	ND	0.006	ND

ppm = Parts per million = mg/Kg = milligram per Kilogram
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030 followed by analysis using modified EPA Method 8015, which uses a GC equipped with and FID.

Laboratory Representative

8-29-94
Date Reported

Client: Excelchem Environmental Labs
Address: 4946 Watt Avenue, #38
North Highlands, CA 95660
Attn: Mr. John Somers

Project: 94-37-7622

Matrix: Soil
Units: mg/kg

Lab No.: See Below
Date Sampled: 08/12/94
Date Received: 08/19/94

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	DLR	DF
940819-008	SP-1-SP-3	EPA 9010 (Reactive Cyanide)	08/19/94	ND	.2	1
940819-009	SP-4-SP-6	EPA 9010 (Reactive Cyanide)	08/19/94	ND	.2	1
940819-008	SP-1-SP-3	EPA 9030 (Reactive Sulfide)	08/19/94	ND	.5	1
940819-009	SP-4-SP-6	EPA 9030 (Reactive Sulfide)	08/19/94	ND	.5	1
940819-008	SP-1-SP-3	EPA 1010 (Flash Point)	08/19/94	>200F	-	-
940819-009	SP-4-SP-6	EPA 1010 (Flash Point)	08/19/94	>200F	-	-
940819-008	SP-1-SP-3	EPA 7420 (Lead)*	08/29/94	44	2.4	1.0
940819-009	SP-4-SP-6	EPA 7420 (Lead)*	08/29/94	60	2.4	1.0
940819-008	SP-1-SP-3	EPA 9045 (ph)**	08/19/94	7.5	-	-
940819-009	SP-4-SP-6	EPA 9045 (ph)**	08/19/94	6.2	-	-

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DLR = MDL X Dilution Factor
DF = Dilution Factor
* = Date Digested is 08/26/94
** = Units is pH

Reviewed/Approved By: _____
Edgar P. Caballero
Laboratory Director

Date: 8/31/94

The cover letter is an integral part of this analytical recon.

APPENDIX D

ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORMS: GROUNDWATER

Excelchem
Environmental Labs

4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Stephen Boudreau
Phone #: (415) 296-1041
Company/Address: Fugro West, 44 Montgomery St. Suite 1010 SF
FAX #: 296-0944
Project Number: 94-37-7622
P.O.#:
Project Name: Bill Chan Service Station
Project Location: 2301 South Clara Ave Alameda
Sampler Signature:

Sample ID	Sampling DATE	Sampling TIME	Container VOA	Container SLEEVE	Container 1L GLASS	Container 1L PLASTIC	Method Preserved HCl	Method Preserved HNO3	Method Preserved ICE	Method Preserved NONE	Matrix WATER	Matrix SOIL
HP-1	8-30-94		3		1		X				X	
HP-2	↓		3		1		↓				↓	
HP-3	↓		3		1		↓				↓	

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015)	TPH as Oil (8015)	Total Oil & Grease (5520 B/E,F)	Total Oil & Grease IR (5520 B/E,F,C)	96 - Hour Fish Bioassay	EPA 601/8010	EPA 602/8020	EPA 615/8150	EPA 608/8080 - Pesticides	EPA 608/8080-PCBs	EPA 624/8240	EPA 625/8270	ORGANIC LEAD	Reactivity, Corrosivity, Ignitibility	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	Cd, Cr, Pb, Zn, Ni	W.E.T. (✓)	TOTAL (✓)
	X	X					X												WO 89 44 59		
	X	X					X												WO 89 44 60		
	X	X					X												WO 89 44 61		

TAT: RUSH SERVICE (12 hr) or (24 hr) | EXPEDITED SERVICE (48 hr) or (1 WK) ✓ | STANDARD SERVICE (2wk)

Relinquished by:	Date	Time	Received by:
	8/31/94	12:25	Mindy Somers
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	8/31/94	12:55	Mindy Somers

Remarks: Please fax copy of results
RECEIVED
SEP 15 1994
Steve Osborn
Fugro West Roseville
(916) 786-7830

Bill to: Ans'd

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Stephen Boudreau
FUGRO-WEST, INC.
44 Montgomery Street, #1010
San Francisco, CA. 94104

Project : 94-37-7622

Date Sampled : 08-30-94
Date Received: 08-31-94
TPHg Analyzed: 09-07-94
BTEX Analyzed: 09-07-94
TPHd Analyzed: 09-12-94
Matrix: Water

	Benzene PPB	Toluene PPB	Ethyl-benzene PPB	Total Xylenes PPB	TPHg PPB	TPHd PPB
Reporting Limit:	10	10	10	10	1000	1000
SAMPLE Laboratory Identification:						
HP-1 W0894459	19	98	15	53	7500	ND

ppb = Parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.
TPHd–Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3510 followed by modified EPA 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

9-13-94
Date Reported

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Stephen Boudreau
FUGRO-WEST, INC.
44 Montgomery Street, #1010
San Francisco, CA. 94104

Project : 94-37-7622

Date Sampled :	08-30-94
Date Received:	08-31-94
TPHg Analyzed:	09-07-94
BTEX Analyzed:	09-07-94
TPHd Analyzed:	09-12-94
Matrix:	Water

	Benzene PPB	Toluene PPB	Ethyl-benzene PPB	Total Xylenes PPB	TPHg PPB	TPHd PPB
Reporting Limit:	0.5	0.5	0.5	0.5	50	50
SAMPLE Laboratory Identification:						
HP-2 W0894460	ND	ND	ND	0.5	ND	ND
HP-3 W0894461	410	2.0	5.0	9.0	950	ND

ppb= Parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.
TPHd–Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3510 followed by modified EPA 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

9-13-94
Date Reported

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Steven Boudreau
Fugro West
44 Montgomery St. #1010
San Francisco, CA 94104
Project : 94-37-7622
Sample ID: HP-1
Lab ID : W0894459

Date Sampled : 8-30-94
Date Received : 8-31-94
Date Analyzed : 9-10-94
Matrix : Water

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	1.0	ND
Vinyl Chloride	1.0	ND
Bromomethane	1.0	ND
Chloroethane	1.0	ND
Trichlorofluoromethane	1.0	ND
1,1-Dichloroethene	1.0	ND
Methylene Chloride	1.0	ND
Trans-1,2-Dichloroethene	1.0	ND
Chloroform	1.0	ND
1,1-Dichloroethane	1.0	ND
1,1,1-Trichloroethane	1.0	ND
Carbon Tetrachloride	1.0	ND
1,2-Dichloroethane	1.0	ND
Trichloroethene	1.0	ND
1,2-Dichloropropane	1.0	ND
Bromodichloromethane	1.0	ND
Cis-1,3-Dichloropropene	1.0	ND
Trans-1,3-Dichloropropene	1.0	ND
1,1,2-Trichloroethane	1.0	ND
Tetrachloroethene	1.0	ND
Dibromochloromethane	1.0	ND
Chlorobenzene	1.0	ND
Bromoform	1.0	ND
1,1,2,2-Tetrachloroethane	1.0	ND
1,3-Dichlorobenzene	1.0	ND
1,4-Dichlorobenzene	1.0	ND
1,2-Dichlorobenzene	1.0	ND

ppb = parts per billion = ug/L = microgram per liter.
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Surrogate Recoveries - Bromochloromethane = %121
4-Bromofluorobenzene = %106
2-Bromochlorobenzene = %17

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

9-13-94
Date Reported

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Steven Boudreau
Fugro West
44 Montgomery St. #1010
San Francisco, CA 94104
Project : 94-37-7622
Sample ID: HP-2
Lab ID : W0894460

Date Sampled : 8-30-94
Date Received : 8-31-94
Date Analyzed : 9-9-94
Matrix : Water

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	1.0	ND
Vinyl Chloride	1.0	ND
Bromomethane	1.0	ND
Chloroethane	1.0	ND
Trichlorofluoromethane	1.0	ND
1,1-Dichloroethene	1.0	ND
Methylene Chloride	1.0	ND
Trans-1,2-Dichloroethene	1.0	ND
Chloroform	1.0	ND
1,1-Dichloroethane	1.0	ND
1,1,1-Trichloroethane	1.0	ND
Carbon Tetrachloride	1.0	ND
1,2-Dichloroethane	1.0	ND
Trichloroethene	1.0	ND
1,2-Dichloropropane	1.0	ND
Bromodichloromethane	1.0	ND
Cis-1,3-Dichloropropene	1.0	ND
Trans-1,3-Dichloropropene	1.0	ND
1,1,2-Trichloroethane	1.0	ND
Tetrachloroethene	1.0	ND
Dibromochloromethane	1.0	ND
Chlorobenzene	1.0	ND
Bromoform	1.0	ND
1,1,2,2-Tetrachloroethane	1.0	ND
1,3-Dichlorobenzene	1.0	ND
1,4-Dichlorobenzene	1.0	ND
1,2-Dichlorobenzene	1.0	ND

ppb = parts per billion = ug/L = microgram per liter.
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Surrogate Recoveries - Bromochloromethane = %72
4-Bromofluorobenzene = %78
2-Bromochlorobenzene = %49

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

9-13-94
Date Reported

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Steven Boudreau
Fugro West
44 Montgomery St. #1010
San Francisco, CA 94104
Project : 94-37-7622
Sample ID: HP-3
Lab ID : W0894461

Date Sampled : 8-30-94
Date Received : 8-31-94
Date Analyzed : 9-10-94
Matrix : Water

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	5.0	ND
Vinyl Chloride	5.0	ND
Bromomethane	5.0	ND
Chloroethane	5.0	ND
Trichlorofluoromethane	5.0	ND
1,1-Dichloroethene	5.0	ND
Methylene Chloride	5.0	ND
Trans-1,2-Dichloroethene	5.0	ND
Chloroform	5.0	ND
1,1-Dichloroethane	5.0	ND
1,1,1-Trichloroethane	5.0	ND
Carbon Tetrachloride	5.0	ND
1,2-Dichloroethane	5.0	54
Trichloroethene	5.0	ND
1,2-Dichloropropane	5.0	ND
Bromodichloromethane	5.0	ND
Cis-1,3-Dichloropropene	5.0	ND
Trans-1,3-Dichloropropene	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Tetrachloroethene	5.0	ND
Dibromochloromethane	5.0	ND
Chlorobenzene	5.0	ND
Bromoform	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
1,2-Dichlorobenzene	5.0	ND

ppb = parts per billion = ug/L = microgram per liter.
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Surrogate Recoveries - Bromochloromethane = %101
4-Bromofluorobenzene = %116
2-Bromochlorobenzene = %76

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

9-13-94
Date Reported

APPENDIX E

ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORMS: AIR

Excelchem
Environmental Labs

4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: DAN JOHNSON
Phone #: (916)782-2110

Company/Address: 1050 MELODY LN #160 FUGRO WEST ROSEVILLE, CA 95678
FAX #: (916)786-7830

Project Number: 9437-7622
P.O.#:
Project Name: PILOT TEST

Project Location: 2301 SANTA CLARA AVE ALAMEDA, CA
Sampler Signature: [signature]

Sample ID	Sampling DATE	Sampling TIME	Container: VOA	SLEEVE	1L GLASS	1L PLASTIC	1L TEDLAR	Method Preserved: HCl	HNO3	ICE	NONE		Matrix: WATER	SOIL	AIR	
INF	11/28/94	1600 HRS					X				X				X	

ANALYSIS REQUEST

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015)	TPH as Oil (8015)	Total Oil & Grease (5520 B/E,F)	Total Oil & Grease IR (5520 B/E,F,C)	96 - Hour Fish Bioassay	EPA 601/8010	EPA 602/8020	EPA 615/8150	EPA 608/8080 - Pesticides	EPA 608/8080-PCBs	EPA 624/8240	EPA 625/8270	ORGANIC LEAD	Reactivity, Corrosivity, Ignitibility	W.E.T. (✓) / TOTAL (✓): CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	Cd, Cr, Pb, Zn, Ni	TAT: RUSH SERVICE (12 hr) or (24 hr)	EXPEDITED SERVICE (48 hr) or (1 wk)	STANDARD SERVICE (2wk)
INF		X																					X

Relinquished by:	Date	Time	Received by:
[signature]	11/28/94	17:05	
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	11/28/94	17:05	[signature]

Remarks:

Bill To:

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Dan Johnson
FUGRO-WEST, INC.
1050 Melody Lane, Suite 160
Roseville, CA 95678

Date Sampled : 9-29-94
Date Received: 9-30-94
BTEX Analyzed: 9-30-94
TPHg Analyzed: 9-30-94
Matrix: Air

Project: 9437-7622

	Benzene ppmv	Toluene ppmv	Ethyl-benzene ppmv	Total Xylenes ppmv	TPHg ppmv
Reporting Limit:	50	50	50	50	5000
SAMPLE Laboratory Identification:					
INF A0994609	390	650	92	430	9000

ppmv = Parts per million volumetrically = ul/L = microliter per Liter.
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

NOTE: The ppmv concentrations were calculated using the following variables: Pressure = 1 atmosphere, Temperature = 298 Kelvin, Molecular weight of gasoline is 86, and the ideal gas law constant is 0.08205.

ANALYTICAL PROCEDURES

BTEX-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using modified EPA Method 8020 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg--Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.

Laboratory Representative

10-27-94
Date Reported

Excelchem
Environmental Labs
4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

ANALYSIS REPORT

Attention: Mr. Dan Johnson
FUGRO-WEST, INC.
1050 Melody Lane, Suite 160
Roseville, Ca. 95678

Date Sampled : 09-29-94
Date Received: 09-30-94
BTEX Analyzed: 09-30-94
TPHg Analyzed: 09-30-94
Matrix: Air

Project: 9437-7622

	Benzene mg/M^3	Toluene mg/M^3	Ethyl-benzene mg/M^3	Total Xylenes mg/M^3	TPHg mg/M^3
Reporting Limit:	40	40	40	40	800
SAMPLE Laboratory Identification:					
INF A0994609	1200	2400	400	1900	32,000

mg/M^3 = milligrams per cubic meter.
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using modified EPA Method 8020 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg--Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.

Laboratory Representative

10-04-94
Date Reported

APPENDIX F

WASTE TRANSPORTATION MANIFESTS AND WASTE ACCEPTANCE FORMS

DEN BESTE TRANSPORTATION INC.

P.U.C. #148046
EPA #CAD982513832
Hazardous Waste Hauler #2578

Hazardous Waste Transportation
209 MAILI CT.
WINDSOR, CA 95492

(707) 838-1407
Pager: (707) 571-0653
Mobile: (707) 484-2764

SHIPPING ORDER and FREIGHT BILL

№ 6254

Date 9 / 22 / 1994

TRUCK NO. JL-1 TRAILER NO. JL-1

SUB HAULER LE Strange

TYPE OF LOADING
☐ BUNKER ☐ BELT
☐ POWER ☐ HAND

PRIMER CARRIER Den Beste | TAG NO. 6254 | CONSIGNEE BAT M

SHIPPER BAT M | DESTINATION Imwall 65

POINT OF ORIGIN Santa Clara Ave | CITY San Francisco

CITY Alameda | P.O. NO.

MATERIALS			LOADING		UNLOADING		FUEL	No. of Axles 5	ONE WAY MILEAGE
NO	SCALE TAG NO	YARDS OR WEIGHT	TIME ARRIVE	TIME LEAVE	TIME ARRIVE	TIME LEAVE	GAL	TRUCK TYPE Tract	
1	58018	18Y	700	1030	1115	1145	TIME STARTED LAST LOAD -		
2		35.55T					TIME ARRIVED TO DUMP LAST LOAD -		
3							NET RUNNING TIME LAST LOAD -		
4							TIME FINISHED DUMP LAST LOAD -		
5							TIME ALLOWED TO RETURN BASE AS NET RUNNING TIME LAST LOAD -		
6							OFFICE USE ONLY		
7							TOTAL HOURS OR TONS		
8							RATE PER HOUR OR TON	$	
9							SUB TOTAL	$	
10							SUR CHARGES	$	
11									
12	[illegible]								
13									
14	OCT 3 199[illegible]								
15									
16							SALES TAX	$	
17							BRIDGE FARE	$	
START		STOP	DEDUCT TIME		NET TIME		TOTAL CHARGES	$	
DRIVER					RECEIVED BY				

WE MAKE DELIVERIES INSIDE THE CURB LINE AND ON THE LOT AT THE CUSTOMER'S RISK ONLY AND ACCEPT NO RESPONSIBILITY FOR DAMAGES RESULTING FROM SUCH DELIVERIES.

ALL BILLS DUE AND PAYABLE BY THE 10TH OF THE MONTH. A 1½% PER MONTH CHARGED ON PAST DUE ACCOUNTS. THIS IS AN ANNUAL PERCENTAGE RATE OF 18%. CUSTOMER WILL BE RESPONSIBLE FOR ALL COURT AND ATTORNEY COSTS FOR COLLECTION.

TAG # 58018

Truck Tag # 6254

STA__________

10 WHEELER SEMI

NON-HAZARDOUS WASTE ACCEPTANCE FORM
FOR DISPOSAL OF
PETROLEUM CONTAMINATED SOIL

LOAD # 01

Generator Information:

1. Name: LUCY CHUN Date: 9/28/94
2. Address: 2301 SANTA CLARA AVE
3. City, State, Zip: ALAMEDA, CA
4. Contact Person: STEVE BOUDREAU Phone No.: (415) 296-1041

Waste Description: SOIL CONTAMINATED WITH PETR. HYDROCAR.

Components of Waste: SOIL, SAND, CLAY

Containers (type): Transfer Volume: 18 yds Weight:

I hereby certify that the above named material does not contain free liquid that is defined by 40 CFR 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR 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 (print & sign): Marvin Castro-McCastro Date: 9-28-94
FIELD WEST, INC. AS REP. FOR LUCY CHUN.

Transporter Information:

Transporter Name: Le Strange Trucking Phone: 707 838-1487

Address: Hwy 128 Truck No.: TL-1

Calistoga Ca License No.: JACATAC / CA

I hereby certify that the above named material was picked up at the generator site listed above and that the above named material was delivered without incident to the destination listed below.

Driver (Print & Sign): Jack Le Strange Date: 9/28/94

Disposal Facility Acceptance Certification:

I hereby certify that the above named material has been accepted for disposal at Bay Area Tank & Marine Soil lot 4th/C St., California and to the best of my knowledge the foregoing is true and accurate.

Received By (print & sign): Tak Chun Date: 9/28/94

R. BAUERLE TRUCKING

1468 Oak Canyon Place • San Jose, CA 95120
Tel: (408) 927-3021 • Fax: (408) 997-8344

№ 11333

TRUCK NO. 081 TRAILER NOS. 7A TRACTOR LIC. NO. DATE 9-28-94

UNDERLYING CARRIER — MANIFEST or BILL OF LADING

CONSIGNOR (RECEIVED FROM): Lucy Allen — CONSIGNEE (DELIVERED TO): BATM

POINT OF ORIGIN (LOAD SITE): 2301 Santa Clara — POINT OF DESTINATION (DUMP SITE)

CITY: Alameda Ca — CITY: San Francisco Ca

NAME AND ADDRESS OF DEBTOR (IF OTHER THAN CONSIGNOR) X Den Beste — JOB NO.

(ZONE RATES ONLY) ADDRESS — P.O. NO.

PRODUCTION AREA LETTER — DELIVERY ZONE NO. — CITY — (DISTANCE RATES ONLY) DISTANCE IN MILES

TAG NO.	WEIGHT	LOADING ARRIVE	LOADING DEPART	UNLOADING ARRIVE	UNLOADING DEPART
3019	48150	0815	0910	1025	1055
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

COMMODITY TRANSPORTED: Dirt — TYPE OF LOADING AT ORIGIN: POWER ☐ HAND ☐ BUNKER ☐ OTHER ☐

CAPACITY IN CUBIC YARDS — NO. OF AXLES — IF DISTANCE BETWEEN FIRST AND LAST AXLE IS 36 FEET OR OVER, CHECK ☐

TIME DRIVER REPORTED FOR WORK — TARE WEIGHTS

A. STARTING TIME OF LAST TRIP		B. STARTING TIME OF UNLOADING OF LAST TRIP		C. OVERALL TIME INCLUDING RETURN TRIP	
TIME ARRIVED AT DUMP SITE		ENDING TIME OF UNLOADING TIME OF LAST TRIP		D. DEDUCTIBLE TIME FOR MEALS OR FAILURE OF CARRIER EQUIPMENT	
RUNNING TIME OF LAST TRIP		ELAPSED TIME OF THE UNLOADING TIME OF LAST TRIP		SIGN FOR NO LUNCH	
REASON FOR DELAY				NET CHARGEABLE TIME	

TYPE OF EQUIP. ☐ END DUMP ☐ FLATBED ☐ LOWBED ☒ TRANSFER ☐ 10 WHEEL

HOURS		APPLICABLE HOURLY RATE	▶
TONS		RATE IN CENTS PER TON	▶
			▶
		TOTAL	

DRIVER'S SIGNATURE [signature]

CUSTOMER'S SIGNATURE [signature]

TERMS: NET 10TH PROX. CONSIGNEE TO PAY ANY LEGAL FEES FOR COLLECTION OF DELINQUENT ACCOUNTS PLUS A SERVICE CHARGE OF 1½% PER MONTH OR 18% PER YEAR WILL BE CHARGED FOR ALL PAST DUE ACCOUNTS
WE MAKE ALL DELIVERIES INSIDE CURB AND ON LOT AT CUSTOMER'S RISK ONLY AND ACCEPT NO RESPONSIBILITY FOR DAMAGES RESULTING FROM SUCH DELIVERIES

TAG # 58019

STA ______

10 WHEELER SEMI

NON-HAZARDOUS WASTE ACCEPTANCE FORM
FOR DISPOSAL OF
PETROLEUM CONTAMINATED SOIL

LOAD # 02

Generator Information:

1. Name: LUCY CHUN Date: 9/28/94
2. Address: 2301 SANTA CLARA AVE.
3. City, State, Zip: ALAMEDA, CA
4. Contact Person: STEVE BOUDREAU Phone No.: (415) 296-1041

Waste Description: SOIL CONTAMINATED W. PETROL. HYDROCARBONS

Components of Waste: SOIL, SAND, CLAY

Containers (type): TRANSFER Volume: 18 YD Weight: ______

I hereby certify that the above named material does not contain free liquid that is defined by 40 CFR 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR 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 (print & sign): MARVIN CASTRO M. Castro Date: 9-28-94

FUGRO WEST, INC., AS AN AGENT FOR LUCY CHUN.

Transporter Information:

Transporter Name: BAUER'S TRUCKING Phone: (408) 927-9221

Address: 1468 OAK CANYON DR. Truck No.: RB7

SAN JOSE CA 95120 License No.: BP71200

I hereby certify that the above named material was picked up at the generator site listed above and that the above named material was delivered without incident to the destination listed below.

Driver (Print & Sign): ENNIS CRUMPTON Date: 9/28/94

Disposal Facility Acceptance Certification:

I hereby certify that the above named material has been accepted for disposal at Soil Lot #334 C SF (B.A.T.&M.), California and to the best of my knowledge the foregoing is true and accurate.

Received By (print & sign): Tom Blue Date: 9/28/94