HAGEMAN-AGUIAR, INC.

Underground Contamination Investigations
Groundwater Consultants, Environmental Engineering

3732 Mt. Diablo Blvd. Suite 372
Lafayette, California 94549
(510) 284-1661
FAX (510) 284-1664

October 28, 1992

PROPOSAL FOR SUBSURFACE INVESTIGATION

19100 Mission Blvd
Hayward, CA

92 NOV 11 AM 8:29

I. INTRODUCTION

The site location is the property at 19100 Mission Blvd, Hayward, California. The location of the site is shown in Figure 1. In conjunction with a auto service operation, the site has historically operated two underground fuel storage tanks for a number of years. The proposed scope of work involves the installation of one shallow groundwater monitoring well following the removal of the underground storage tanks from the site. A map of the site is shown in Figure 2. This map shows the layout of the facility, along with the location of the previous underground tank excavation.

? I thought Tanks already removed.

On June 5, 1990, one 550-gallon underground Gasoline storage tank and one 280-gallon underground Waste Oil storage tank were removed by Decon Environmental Services, Inc., Hayward,

FIGURE 1.
Site Location Map.

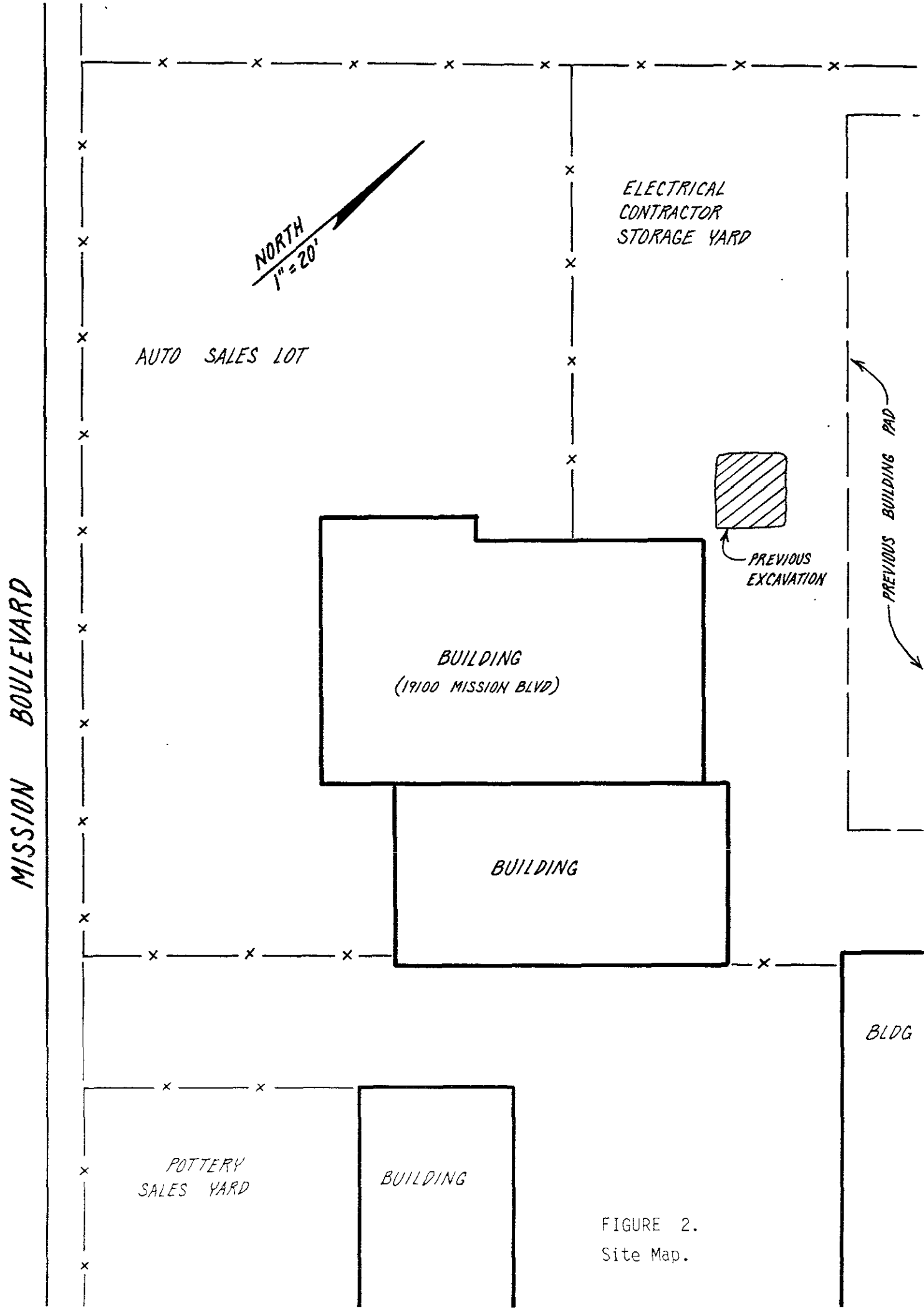


FIGURE 2.
Site Map.

California. The results of laboratory analyses performed on soil samples indicated the presence of Oil & Grease at concentrations of up to 700 mg/kg (ppm).

Analytical results and other data pertaining to the previous underground tank removals are included in Attachment A.

II. SITE DESCRIPTION

Vicinity Description and Hydrogeologic Setting

The location of the site is shown on the site location map (Figure 1). The soils beneath the site consist of Quaternary Alluvium overlying deeper bedrock (Geologic Map of California, San Francisco Sheet, State of California Division of Mines and Geology, 1980). The lower reaches of the San Leandro Hills that rise up to the northeast of the site consist of Mesozoic intrusive rocks along the Hayward Fault (Gabbro and Serpentine), rocks of the Knoxville Formation (shale and sandstone) and Oakland Conglomerate (conglomerate and graywacke sandstone) (Geology of the Hayward Quadrangle, California, USGS Map GQ-88, mapped by G.D. Robinson, 1956). During the borings for the well installations, varying amounts of clay, sand, and gravel can be expected to be encountered, with the coarse soils corresponding to depositional products of the rock formations that comprise the adjacent hills.

Based upon the surface topography, as well as the various hydrologic features shown on the vicinity map, the general regional shallow groundwater can be expected to flow from the San Leandro Hills to the northeast of the site (areas of groundwater recharge) and move toward San Lorenzo Creek to the south and southeast of the site (area of discharge).

Site Description

A map of the site is shown in Figure 2. This map shows the layout of the facility, along with the locations of the previous tank excavation. At the present time, the entire site at 19100 Mission Blvd is covered by asphalt or concrete pavement.

III. EXTENT OF SOIL CONTAMINATION ON SITE

Based upon the information presented in Attachment A, analysis of soil samples collected during the underground storage tank removal indicated the presence of Oil & Grease at concentrations of up to 700 mg/kg (ppm).

The plan for determining groundwater contamination, as discussed in Section IV of this proposal, provides for the analysis of all soil samples for 1) total petroleum hydrocarbons as Diesel, 2) total petroleum hydrocarbons as Gasoline, 3) Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX), and 4) Oil & Grease. In addition, all groundwater samples will be analyzed for Halogenated Volatile Organics and Extractable Organics. An attempt will be made to determine the concentrations of any detectable hydrocarbons that may still be remaining in the soil beneath the site. An attempt will also be made to correlate any new soil sampling data with those from the previous soil sample analyses.

IV. PLAN FOR DETERMINING GROUNDWATER CONTAMINATION

Placement of Monitoring Well

The proposed location of the well is shown in Figure 3. The well is located at an **assumed down-gradient location**, based upon 1) the regional hydrogeologic setting as described in Section II of this report, 2) the close proximity of the site to San Lorenzo Creek, and 3) the apparent shallow groundwater conditions at other sites in the area, based upon inspection of RWQCB case files.

Since only one monitoring well is to be installed at the present time, it is proposed that the well be in relatively close proximity to the previous underground tank excavation. As shown in Figure 3, the shallow groundwater monitoring well will be located approximately 6 feet from the previous underground tank excavation.

Monitoring Well Installations

Well installation will begin as soon as possible, following approval by the appropriate regulatory agencies. The well will be installed with a truck-mounted drill rig using 8-inch hollow-stem augers.

For the monitoring well boring, continuous logging will be conducted by advancing a split barrel sampler (five feet in length) during the drilling operation.

During the drilling, soil samples for chemical analyses will

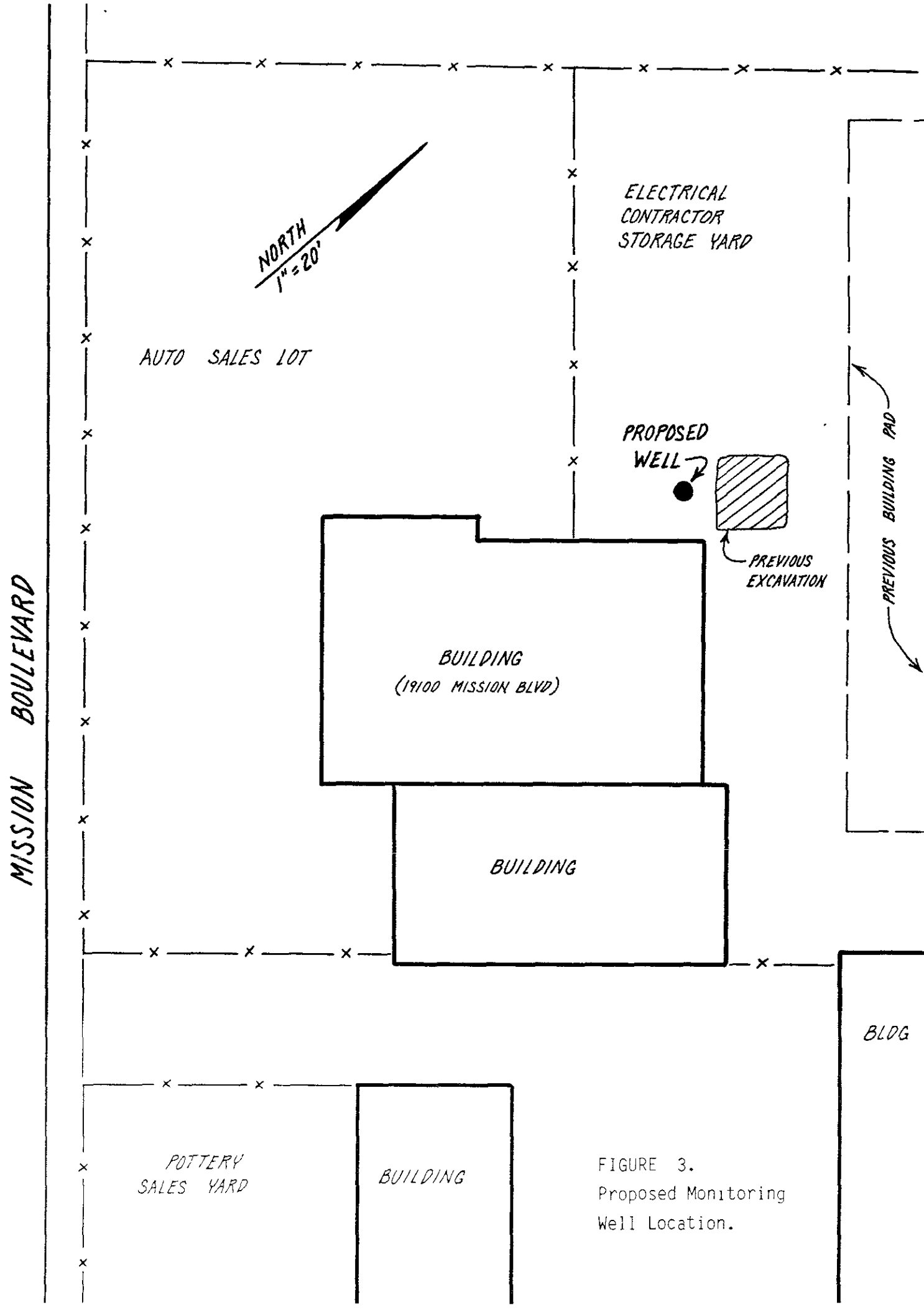


FIGURE 3.
Proposed Monitoring
Well Location.

be collected at 5-foot intervals until the shallow water table is encountered at an expected depth of approximately 15 feet below the ground surface. Each soil sample will be collected by driving directly into the native soil below the augers with a 2-inch split-barrel sampler fitted with clean brass liners. All samples will be immediately placed on ice, then transported under chain-of-custody to the laboratory by the end of the work day.

The well boring will extend to approximately 10 feet below the shallow water table. The well will be cased to approximately three to five feet above the shallow water table with 2-inch PVC slotted screen pipe (0.01" slots). The annular space of each well will be packed to one foot above the slotted section with #2/12 Monterey Sand. At least one foot of wetted bentonite pellets will be placed upon the sand pack, followed by a neat cement/bentonite seal up to the ground surface. The well will be fitted with a locking steel traffic lid. The boring will be logged in the field by Gary Aguiar, Registered Civil Engineer #34262. A typical well construction diagram is shown in Figure 4.

Sand Pack Grain Size Selection

In the case of the one proposed shallow monitoring well, it is not practical to conduct exploratory borings for aquifer samples as a separate program prior to the well installation. The selection of the screen slot size and sand pack grain size will be based upon typical shallow aquifer material encountered at other sites in the area, based upon inspection of RWQCB case files (clayey and silty soils). The 0.01" slots and #2/12 Monterey Sand configuration is generally acceptable for small-diameter monitoring well installations in very fine grain soils, considering 1)

TYPICAL MONITORING WELL CONSTRUCTION

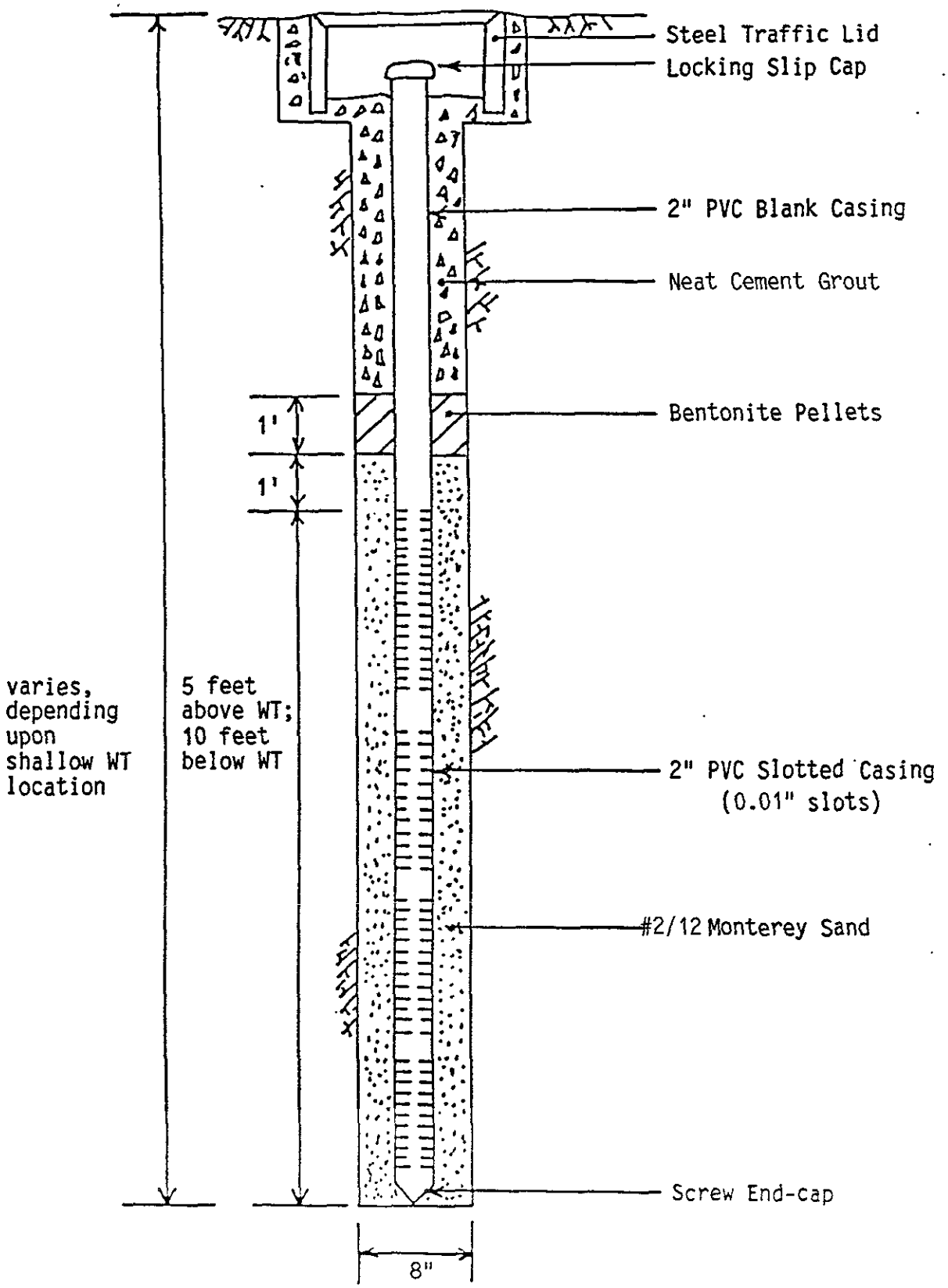


FIGURE 4.
Typical Monitoring Well Construction.

generally adequate filtering out of silt-size particles, 2) potential for sand pack and screen clogging, 3) small-diameter casing well losses, and 4) local availability of monitoring well materials.

In the event that some unexpected and very different aquifer material is encountered, an attempt will be made to obtain and transport to the site alternate well material consisting of well screen with different slot size and sand pack of alternate grain size.

It should be noted that as a standard practice during each monitoring well installation, one or more aquifer material samples are collected for sieve analyses. The results of these sieve analyses will be presented in the final report, and will be used in the design of any recovery wells and/or additional monitoring wells, should they be warranted.

Decontamination

Prior to the installation of the well, all drilling equipment, including augers, drill stem, and split barrel samplers, will be steam-cleaned on-site. Prior to the installation of each well, all drilling equipment, including augers, drill stem, and split barrel samplers, will be steam-cleaned.

All on-site steam-cleaning will be conducted within a temporary bermed area, covered by a plastic liner. Wash water collected in this area will subsequently be transferred into appropriate 55-gallon drums, and stored on-site until the results of laboratory analyses of water samples are obtained. Depending upon these results, the water will be sewered as a non-hazardous liquid waste in accordance with

local sewering agency permit requirements, or else it will be transported as a hazardous liquid waste under proper manifest to an appropriate TSD facility for treatment and disposal.

Groundwater Sampling Plan

The development of the newly installed monitoring well will not occur for at least 72 hours after construction. The well will be developed by removing water with a mechanical air-lift pump until the water is relatively clear, or until the apparent turbidity of the water being removed has stabilized. In the event that pumping does not appear to be providing adequate well development, a well development service truck can be brought to the site in order to attempt further development with mechanical surge block and bailer.

Groundwater sampling shall not occur less than 24 hours after well development. Prior to groundwater sampling, the monitoring well will be purged by bailing 4 to 10 casing volumes of water. Field conductivity, temperature, and pH meters will be present on-site during the monitoring well sampling. As the purging process proceeds, these three parameters will be monitored. Purging must continue until readings appear to have reasonably stabilized. After the water level has attained 80% or more of the original static water level in a particular monitoring well, a groundwater sample will be collected using a clean teflon bailer. The water sample will be placed inside appropriate 40 mL VOA vials and 1-liter amber bottles free of any headspace. The sample will immediately be placed on crushed ice, then transported under chain-of-custody to the laboratory at the end of the work day.

At the time each monitoring well is sampled, the following

information will be recorded in the field: 1) depth-to-water prior to purging, using an electrical well sounding tape, 2) identification of any floating product, sheen, or odor prior to purging, using a clear teflon bailer, 3) sample pH, 4) sample temperature, and 5) specific conductance of the sample.

Laboratory Analysis

All analyses will be conducted by a California State DOHS certified laboratory (Priority Environmental Laboratory, Milpitas, CA) in accordance with EPA recommended procedures.

Soil samples will be analyzed for:

1) total Extractable Petroleum Hydrocarbons
2) total petroleum hydrocarbons as Gasoline
3) Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)
4) Oil & Grease

Groundwater samples will be analyzed for:

1) total Extractable Petroleum Hydrocarbons
2) total petroleum hydrocarbons as Gasoline
3) Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)
4) Oil & Grease
5) Halogenated Volatile Organics (EPA 601)
6) Extractable Organics (EPA 625)
7) LUFT Metals (Cd, Cr, Pb, Ni, Zn)

Waste Generation

All drill cuttings will be stockpiled and stored on-site until the results of laboratory analyses are obtained. Depending upon these results, the cuttings will be disposed of as either a non-hazardous waste, or else transported as a hazardous waste under proper manifest to an appropriate TSD facility. In the case of contaminated soil, it may be possible to remove residual Volatile Petroleum concentrations by aeration under permit from the Bay Area Air Quality Management District (BAAQMD), and thereby facilitate disposal as a non-hazardous waste.

All water removed from the well during development and purging will be drummed and stored on-site until the results of laboratory analyses are obtained. Depending upon these results, the water will be sewered as a non-hazardous liquid waste in accordance with local sewering agency permit requirements, or else it will be transported as a hazardous liquid waste under proper manifest to an appropriate TSD facility for treatment and disposal.

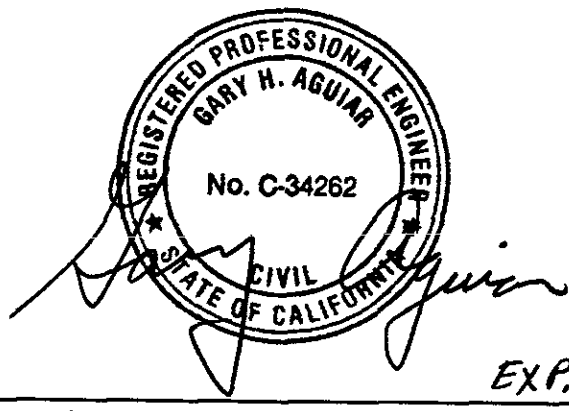
V. REPORT

A report will be written that will provide a description of all field work, present the geologic log, and present all laboratory results. The report will include, but not be limited to, the following:

1) a map showing well location.
2) soil and formation conditions.
3) geologic log.
4) depths to groundwater.
5) report of presence of free product.
6) results of laboratory analyses.
7) contaminant source identification.
8) recommendations for further investigation and/or remediation, if deemed necessary.

VI. SITE SAFETY PLAN

A site-specific set of health and safety operating procedures for field investigations of underground spills of motor oil and petroleum distillate fuel is provided in Attachment B. In order to maintain a safe working environment for field personnel, a copy of these operating procedures will be kept on-site during the field operations, and will be followed in accordance with the magnitude of petroleum contamination encountered.



EXP. 9-30-95

Gary Aguiar RCE 34262

ATTACHMENT A

Data Pertaining to Previous Tank Removal

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

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

August 27, 1992

Clifton A. Sherwood
Sherwood-Dawson and Company
P.O. Box 2673
Castro Valley, CA 94546

STID 3744

Re: Required investigations at 19100 Mission Boulevard, Hayward, California

Dear Mr. Sherwood,

In June 1990, two underground storage tanks, one 500-gallon unleaded gasoline tank and one 280-gallon waste oil tank, were removed from the above site. Analysis of soil samples identified up to 140 parts per million (ppm) Oil and Grease in the native soil beneath the tanks and 700 ppm Oil and Grease from the excavated soil around the tanks. Guidelines established by the Regional Water Quality Control Board (RWQCB) require that a soil and ground water investigation be conducted whenever an unauthorized release of product is suspected from an underground storage tank. The above information would indicate that such an event may have occurred.

In July 1991, this office wrote you a letter requesting that further soil and ground water investigations be conducted at the above site. You responded to this request, in a letter dated July 31, 1991, by stating that a work plan would be submitted in the next several months, and that the work would be scheduled to coincide with the completion of on-site building construction which was scheduled for August 1992. To this date, this office has not received a work plan or any requests for an extension from you.

You are required to conduct a **Preliminary Site Assessment (PSA)** to determine the lateral and vertical extent and severity of latent soil and ground water contamination which may have resulted from the release at the site. The information gathered by the PSA will be used to determine an appropriate course of action to remediate the site, if deemed necessary. The PSA must be conducted in accordance with the RWQCB Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks, the State Water Board's LUFT Manual, and be consistent with requirements set forth in Article 11 of Title 23, California Code of Regulations. The major elements of such an investigation

are summarized in the **attached Appendix A.** The major elements of the guidelines include, but are not limited to, the following:

- At least one ground water monitoring well must be installed within 10 feet of the observed soil contamination, oriented in the confirmed downgradient direction relative to ground water flow. In the absence of data identifying the confirmed downgradient direction, a minimum of three wells will be required to verify gradient direction.

- Subsequent to the installation of the monitoring wells, these wells must be surveyed to an established benchmark, with an accuracy of 0.01 foot. Additionally, ground water samples are to be collected and analyzed quarterly. Water level measurements are to be collected monthly for 12 consecutive months, and then quarterly thereafter. It appears that past soil samples were not analyzed for all the parameters required for waste oil tanks in Table 2 of the RWQCB's Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks. Therefore, you will be required to analyze soil and ground water samples for all these constituents in the initial assessment.

This Department will oversee the assessment and remediation of your site. Our oversight will include the review of and comment on work proposals and technical guidance on appropriate investigative approaches and monitoring schedules. The issuance of well drilling permits, however, will be through the Alameda County Flood Control and Water Conservation District, Zone 7, in Pleasanton. The RWQCB may choose to take over as lead agency if it is determined following the completion of the initial assessment that there has been a substantial impact to ground water.

The PSA proposal is due within 45 days of the date of this letter. Once the proposal is approved, field work should commence within 60 days. A report must be submitted within 45 days after the completion of this phase of work at the site. Subsequent reports are to be submitted quarterly until this site qualifies for final RWQCB "sign-off".

The referenced initial and quarterly reports must describe the status of the investigation and must include, among others, the following elements:

- Details and results of all work performed during the designated period of time: records of field observations and data, boring and well construction logs, water level data, chain-of-custody forms, laboratory results for all samples collected and analyzed, tabulations of free product thicknesses and dissolved fractions, etc.

- Status of ground water contamination characterization

- Interpretation of results: water level contour maps showing gradients, free and dissolved product plume definition maps for each target component, geologic cross sections, etc.

- Recommendations or plans for additional investigative work of remediation

Please be advised that this is a formal request for technical reports pursuant to **California Water Code Section 13267 (b)**. Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by either this agency or RWQCB.

Please be reminded to copy Eddy So, at the San Francisco Bay Region-Water Quality Control Board, on all correspondence and reports regarding this site.

If you have any questions or comments, please contact Juliet Shin at (510) 271-4530.

Sincerely,

Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Eddy So, RWQCB

Hugh Murphy, Hayward Fire Dept.

Mark Thompson, Alameda County District Attorney's Office

Edgar Howell-File (JS)

DECON
ENVIRONMENTAL SERVICES, INC.

July 11, 1990

Mr. Cliff Sherwood
N.I.P. Associates
16999 Grovenor Drive
Castro Valley, CA 94546

SUBJECT: TANK REMOVAL PROJECT, 19100 MISSION BLVD., HAYWARD, CA.

Dear Mr. Sherwood:

DECON Environmental Services, Inc. (DECON) contracted with N.I.P. Associates to remove two underground storage tanks at 19100 Mission Blvd. in Hayward, CA.

The two underground tanks were located in an alleyway between two buildings. The larger tank, 550 gallon capacity, contained unleaded gasoline. The smaller tank, 280 gallon capacity, contained waste oil.

Two permits and a letter notification were required. DECON applied for and obtained the permits for the tank closure from the Alameda County Department of Environmental Health and the Eden Consolidated Fire Protection District. In addition, DECON notified the Bay Area Air Quality Management District by letter more than five days prior to the tank removal. Copies of the two permits and the letter notification are enclosed.

DECON removed the asphalt above the two tanks and excavated the soil to expose the tops of the tanks on Monday June 4, 1990. Following excavation, the residual product was removed from the tanks and both tanks were cleaned by pressure washing three times. There was approximately 250 gallons of residual gasoline and 50 gallons of waste oil remaining in the tanks. At the end of the day the excavation was protected with barricades and caution tape.

The rinsate from cleaning the tanks and the residual product that was removed from the tanks was transported under a manifest to Herrick Oil Distributors in Santa Cruz, a facility permitted to accept residual fuels. A copy of the manifest is attached.

On Tuesday, June 5, the tanks were inerted with dry ice. Approximately 20 pounds of ice was added to the 550 gallon tank and 15 pounds of dry ice was added to the 280 gallon tank. The LEL levels and oxygen levels were checked on both tanks and found to be 0% LEL and <5% oxygen on both tanks. The tanks were removed from the excavation, inspected for corrosion and holes, loaded onto a DECON truck licensed to haul hazardous waste, manifested and transported to Erickson, Inc. a TSD facility permitted to accept tanks for disposal. A copy of the manifest is enclosed.

After the tanks were removed from the excavation, soil samples were collected from beneath the tanks. Two soil samples, one from beneath each tank, were collected from the excavation. The samples were transported to Superior Analytical Laboratory, Inc. for analysis.

The sample beneath the gasoline tank was analyzed for total petroleum hydrocarbons (TPH) using modified method 8015 and for benzene, toluene, ethylbenzene, and xylenes (BTEX) using methods 5030 and 8020. The analytical results showed no detectable levels of TPH or ethylbenzene and xylenes and only trace levels of benzene and toluene. The sample from beneath the waste oil tank was analyzed for oil and grease using method 503E. The analytical result showed 51 ppm total oil and grease. Copies of the analytical results and the chain of custody forms are attached.

The analytical results were transmitted to yourself and to Ms. Pamela J. Evans with the Alameda County Department of Environmental Health. Ms. Evans requested additional excavation and soil samples be collected and analyzed from beneath the waste oil tank.

The necessity to collect and analyze additional samples was discussed with you. It was decided that the samples would be analyzed on a rush basis.

DECON collected soil samples from beneath the waste oil tank at depths of one, two, and three feet by hand augering on June 8, 1990. In addition, a composite sample of the excavated soil pile was collected. The samples were sent to Sequoia Analytical Laboratory for analysis. The one foot sample revealed high levels of oil and grease and the three foot sample showed no detectable levels of oil and grease. The composite of the sample from the soil pile showed 770 ppm of total oil and grease. Copies of these analytical results and the chain of custody form are attached.

Based on these analytical results, an additional three feet of soil was removed from the bottom of the excavation from below the waste oil tank.

Final analytical results were transmitted to Ms. Evans and permission to backfill the excavation was granted. The excavation was backfilled on June 26, 1990.

The soil that was excavated from around the tanks requires disposal at a Class II facility that will accept low levels of contaminated soil under a non-hazardous waste manifest. DECON is currently profiling the soil for disposal at Liquid Waste, Inc. Upon acceptance of the soil by Liquid Waste, DECON will load and transport the soil to this facility for disposal.

If you have any questions pertaining to any aspect of this project, please do not hesitate to contact me at (415) 732-6444.

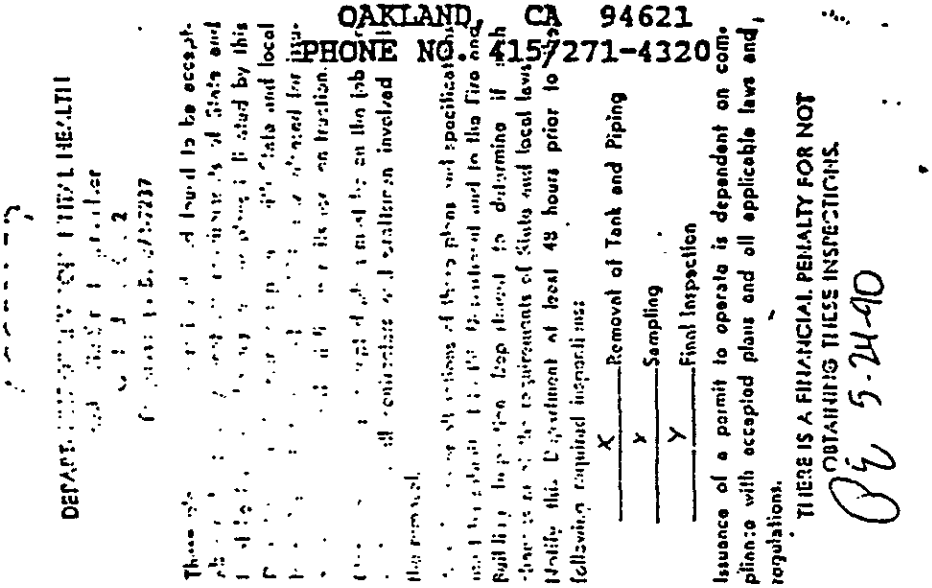
Sincerely,

Christopher D. Kwoka

Christopher D. Kwoka
President

cc: Ms. Pamela J. Evans, Alameda County Department of Environmental Health

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 415/271-4320



UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

1. Business Name NIP Associates

   Business ~~Owner~~ Contact Cliff Sherwood/Tim Coffin etal

2. Site Address 19100 Mission Blvd

   City Hayward Zip 94541 Phone _____

3. Mailing Address 16999 Grovenor Drive

   City Castro Valley Zip 94546 Phone (415) 886-5300

4. Land Owner Same as business

   Address _____ City, State _____ Zip _____

5. EPA I.D. No. CAC 000 282 985

6. Contractor DECON Environmental Services, Inc.

   Address 26102 Eden Landing Road, Suite 4

   City Hayward, California 94545 Phone (4150 732-6444

   License Type A & Haz ID# 545726

7. Consultant None

   Address _____

   Phone _____

8. Contact Person for Investigation

Name Chris Kwoka Title President

Phone (415) 732-6444

9. Total No. of Tanks at facility 2

10. Have permit applications for all tanks been submitted to this office? Yes [x] No [ ]

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Tranporter

Name Refineries Service EPA I.D. No. CAD 083166728

Address P.O. Box 1171

City Patterson State CA Zip 95363

b) Rinsate Transporter

Name Refineries Services EPA I.D. No. CAD 083166728

Address P.O. Box 1171

City Patterson State CA Zip 95363

c) Tank Transporter

Name DECON Environmental Services EPA I.D. No. CAD 982468183

Address 26102 Eden Landing Road, Suite 4

City Hayward State CA Zip 94545

d) Tank Disposal Site

Name Erickson, Inc. EPA I.D. No. CAD 009466392

Address 255 Parr Blvd.

City Richmond State CA Zip 94801

e) Contaminated Soil Transporter

Name DECON Environmental Services EPA I.D. No. CAD 982468183

Address 26102 Eden Landing Road, Suite 4

City Hayward State CA Zip 94545

12. Sample Collector

Name _____

Company DECON Environmental Services, Inc.

Address 26102 Eden Landing Road, Suite 4

City Hayward State CA Zip 94545 Phone (415) 732-6444

13. Sampling Information for each tank or area

Tank or Area		Material sampled	Location & Depth
Capacity	Historic Contents (past 5 years)*		
280 550	waste oil unleaded gasoline	soil, water if groundwater present	6" into native soil beneath the tank, fill or pump end of tank One sample per tank

14. Have tanks or pipes leaked in the past? Yes [ ] No [x]

If yes, describe. _____

15. NFPA methods used for rendering tank inert? Yes [x] No [ ]

If yes, describe. Rinse tanks with water and TSP until LEL <10%, fill tank with dry ice (15 lbs per 1000 gallon tank capacity).

An explosion proof combustible gas meter shall be used to verify tank inertness.

16. Laboratories

Name Superior Labs

Address 1555 Burke Street, Suite I

City San Francisco State CA Zip 94124

State Certification No. 220

17. Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
TPH-Gasoline	5030	Modified 8015
BTEX	5030	8020
PET oil & grease	5030	503E

18. Submit Site Safety Plan

19. Workman's Compensation: Yes [x] No [ ]

Copy of Certificate enclosed? Yes [x] No [ ]

Name of Insurer State Compensation Insurance Fund

20. Plot Plan submitted? Yes [x] No [ ]

21. Deposit enclosed? Yes [x] No [ ]

22. Please forward to this office the following information within 60 days after receipt of sample results.

a) Chain of Custody Sheets

b) Original Signed Laboratory Reports

c) TSD to Generator copies of wastes shipped and received

d) Attachment A summarizing laboratory results

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true. I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Saftey and Health Administration) requirements concerning personnel and safety.

I will notify the Department of Environmental Health at least two (2) working days (48 hours) after approval of this closure plan in advance to schedule any required inspections. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Signature of Contractor

Name (please type) Chris Kwoka

Signature Chris Kwoka

Date 5/22/90

Signature of Site Owner or Operator

Name (please type) TIMOTHY T. RAFFIN

Signature Timothy T. Raffin

Date May 22, 1990

RECEIVED JAN 0 3 1990

STATE COMPENSATION INSURANCE FUND

P.O. BOX 807, SAN FRANCISCO, CA 94101-0807

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

JANUARY 2, 1990

POLICY NUMBER: 1164531 - 90
CERTIFICATE EXPIRES: 1-1-91

For Information Purposes Only

This is to certify that we have issued a valid Workers' Compensation insurance policy in a form approved by the California Insurance Commissioner to the employer named below for the policy period indicated.

This policy is not subject to cancellation by the Fund except upon ten days' advance written notice to the employer.

We will also give you TEN days' advance notice should this policy be cancelled prior to its normal expiration.

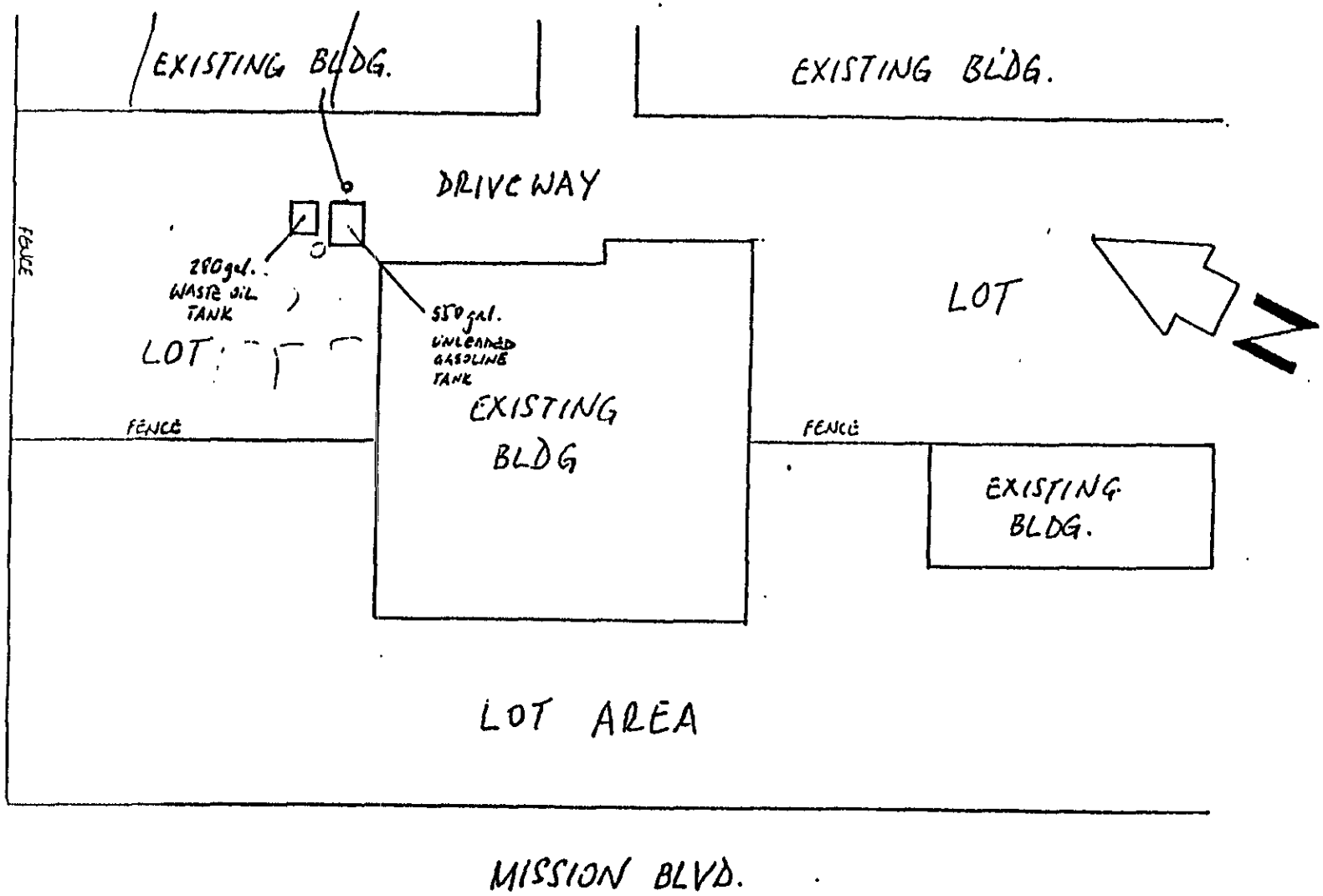
This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

John A. Dlott
PRESIDENT

EMPLOYER'S LIABILITY LIMIT: $3,000,000 PER OCCURRENCE.

EMPLOYER

DECON ENVIRONMENTAL SERVICES INC.
26102 EDEN LANDING RD., # 4
HAYWARD
CA 94545



PLOT PLAN

SCALE: 1" = 30'

Site Safety Plan

Background Info:

Project Name:	NIP Associates
Job Number:	287
Project Manager:	Manuel Petterle
Client Contact:	Tim Coffin, Cliff Sherwood
Site Name:	NIP Automotive Repair Center
Site Address:	19100 Mission Blvd. Hayward
Overall Objective of Site Work:	Excavate 2 tanks, 280 gal, 550 gal
Proposed Date of Site Work:	June 5, 1990
Source of Site Info:	Client
Will Site Officials Accompany Work Personnel:	Yes
Work Time Limitations:	No
Warning for Site Evacuation:	Verbal

Site Description:

Current status:	Automobile Repair
Prior status:	Same

Materials Handled, Disposed, or Stored: Gasoline, waste oil

Potential Degradation Products:	Phenols, benzene, xylenes, toluene
Industrial Processes/Procedures:	Bulk handling of motor fuels; draining of machine oil

HAZARDS: DESCRIPTION, PROTECTION AND MONITORING

The following substances are known or suspected to be currently or historically onsite:

Substance	Physical State	TLV (ppm)	Exposure Characteristics
Gasoline	Liquid	300	Headaches, dizziness, nausea
Waste Oil	Liquid, semisolid	5	" " " " " " "

Potential Environmental Hazards: Spillage of gasoline may cause soil or groundwater contamination; contact from pressure washing, splashing dripping liquid exposure

Potential Worker Hazards: Excavation, heavy equipment, exposure to gasoline explosion, fire

Potential Physical Hazards Onsite: Trenches, noisy operations, explosion, fire

Overall Hazard Estimation: Low, as long as safety guidelines are followed.

Required Personal Protective Equipment (optional as noted)

The following levels of personal protection have been designated: (NOTE: No eating, drinking or smoking is allowed in work areas) During all pumping and washing operations, hoses, pump and affected tanks should be grounded. In addition, two fire extinguishers should be placed in close proximity to the excavation area/s, within easy reach in case of emergency.

Level of Protection: D

Location(s) to be used: On site

Equipment to be used consists of hard hat, eye protection, cloth coveralls, leather boots with steel toes and shanks, work gloves, neoprene boots.

When to use: During all onsite work; dermal protection for all workers in contact with soil

Level of Protection: C

Location to be used: On site

Equipment to consist of Level D protection plus dermal and respiratory protection including neoprene gloves, Tyvek coveralls and American Optical air purifying respirators with AO-52 cartridge filters

When to use: When HNu TPH reading is greater than 100ppm in breathing zone.

Required Decontamination Equipment: Pressure Washer

Disposal of Contaminated Materials or Equipment: Tank rinsate will be disposed of at a licensed disposal or recycling facility. Underground tank will be transported as hazardous to a TSD facility where it will be triple rinsed and salvaged as scrap metal.

Monitoring

1. Direct Reading Monitoring Equipment (e.g., Draeger tubes, HNu):

   Equipment: LEL meter - O_2-H_2S, GasTech model 3220

   Location to be used: Excavation site

   When to use: Prior to tank removal (15-20% LEL) to monitor work conditions

2. Action Levels for Monitoring Results:

   Equipment: Explosimeter, GasTech model 3220

   Action Level: 15% LEL

   Action (type and duration): Tank must be rendered inert, below LEL specified by inspector

ONSITE ORGANIZATION AND COORDINATION

General

The following personnel are designed to carry out the stated job functions onsite:

Project Team Leader: Christopher Kwoka

Site Safety Officer: Christopher Kwoka

Contractors onsite (state function): DECON Environmental - Tank excavation

Government Agency Reps: Alameda County Representatives, Eden Consolidated Fire District, Bay Area Air Quality Management District

Site Access Control

Access to the site will be controlled such that no unauthorized person enters within the following boundaries: Within barricades or 25 feet of excavation.

EMERGENCY MEDICAL CARE AND PROCEDURES

Nearest emergency medical facility:
(see attached map)

Facility Name: Grove Eden Hospital

Address: 20103 Lake Chabot Road, Castro Valley

Telephone: (415) 537-1234

Emergency Telephone Numbers:

Fire: 911

Police: 911

Ambulance: 911

Hotline (e.g., Poison Control Center): (415) 666-2845

Emergency First Aid for Substances Present:

Substance	Exposure Symptoms	First Aid
Gasoline	Dizziness, nausea, headache	Evacuate to open air area

First Aid Equipment Onsite:

Equipment	Location
First Aid Kit	Adjacent to Excavation
Fire Extinguisher	Adjacent to Excavation
Emergency Eye Wash	Adjacent to Excavation

Onsite Emergency Procedures:

1. Personal injury or illness: Administer first aid; call ambulance if necessary; transport to Grove Eden Hospital.

2. Fire or Explosion: Turn off all motorized equipment; evacuate working area; meet at designated upwind location.

3. Earthquake: Turn off all motorized equipment; evacuate working area; meet at designated upwind location.

4. Hazardous Material Spill or Release: Turn off all motorized equipment; evacuate work area in an upwind direction of the spill or release; meet at designated upwind location.

5. Personal Protective Equipment Failure: If any site worker experiences a failure or alteration of protective equipment that affects the protection factor, that person and his/her buddy shall immediately leave the Exclusion Zone. Reentry shall not be permitted until the equipment has been repaired or replaced.

6. Other Equipment Failure: If any other equipment onsite fails to operate properly, the project team leader and site safety officer shall be notified and then shall determine the effect of this failure on continuing operations onsite. If the failure affects the safety of personnel or prevents completion of the work plan tasks, all personnel shall leave the Exclusion Zone until the situation is evaluated and appropriate actions taken.

Prepared By: Peter E. Schoen — Peter Schoen — 25. MAY 1990 — Date

Reviewed By: Christopher D. Kwoka — Christopher Kwoka — 5/25/90 — Date

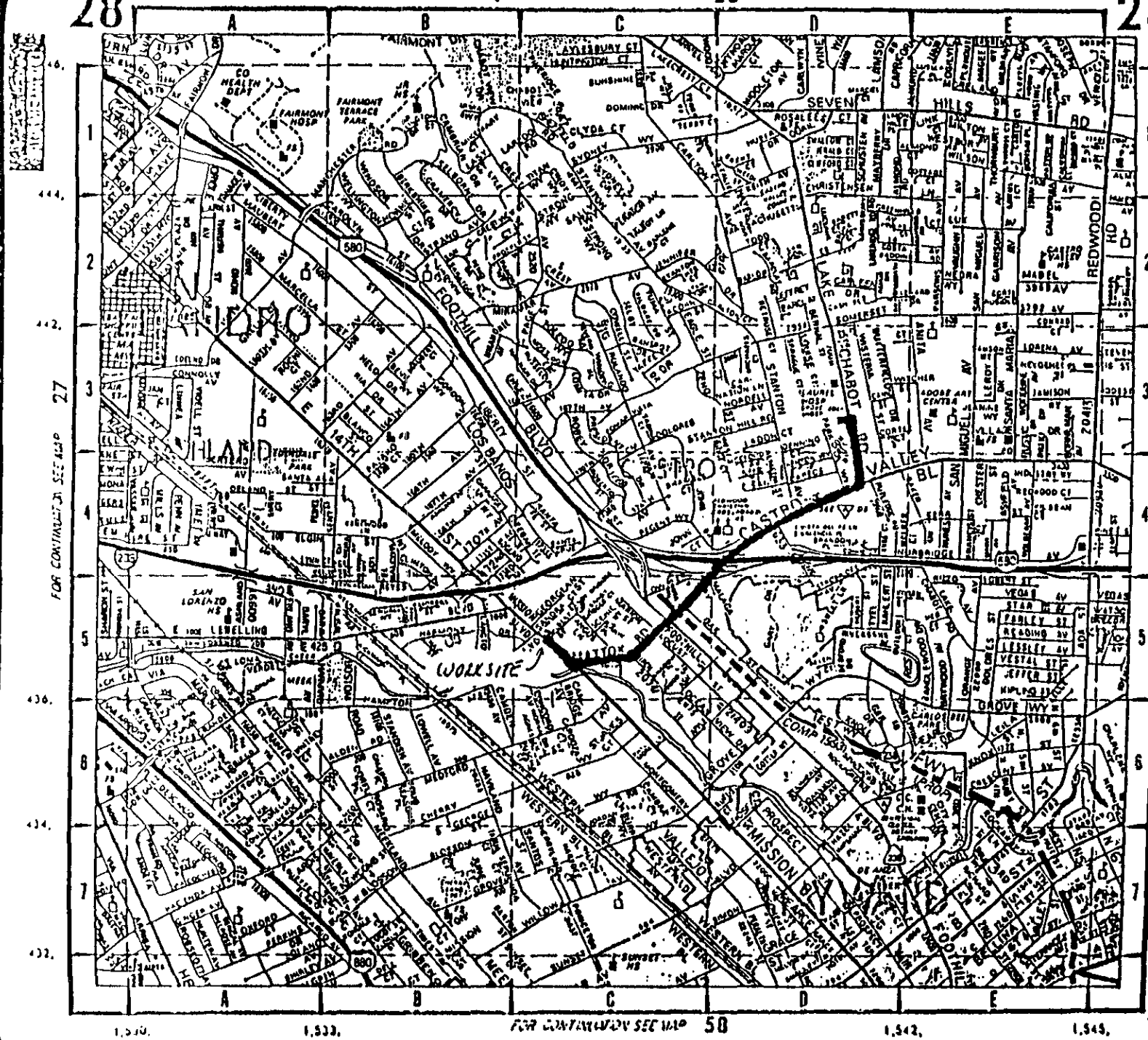
Approved By: Thomas E. Leep — Thomas E. Leep — 5-25-90 — Date

Onsite Personnel

I have read and reviewed this Site Safety Plan and will comply with the requirements stated herein and directions from the site safety officers.

Name	Signature

MAP FOR TO THE HOSPITAL



EDEN CONSOLIDATED
FIRE PROTECTION DISTRICT

427 PASEO GRANDE • SAN LORENZO, CALIFORNIA 94580
(415) 670-5853

FIRE PERMIT

NO: 90-601
ISSUE DATE: 6-1-90
EXPIRATION DATE: 6-7-90

NAME OF BUSINESS
DECON Environmental Services

BUSINESS ADDRESS
26102 Eden Landing Rd. 732-6444

THE BUSINESS (AND ITS LOCATION, LISTED ABOVE) PURSUANT TO THE PROVISIONS OF THE ALAMEDA COUNTY FIRE CODE, HAVING MADE APPLICATION IN DUE FORM AND BEING IN COMPLIANCE WITH APPLICABLE CODES, AND ORDINANCES, IS HEREBY GRANTED PERMISSION FOR THE FOLLOWING TYPES OF OPERATIONS:

Removal of 2 underground flammable liquids storage tanks located at

19100 Mission Blvd, Hayward.

UPON ACCEPTANCE OF THIS PERMIT, THE PERMITTEE AGREES TO COMPLY WITH ALL ORDINANCE PROVISIONS NOW ADOPTED OR THAT MAY BE HEREAFTER ADOPTED.

THIS PERMIT MUST BE KEPT ON THE PREMISES AT ALL TIMES

FIRE PREVENTION BUREAU

James R. Fedrani

EDEN CONSOLIDATED
FIRE PROTECTION DISTRICT
29 PASEO GRANDE • SAN LORENZO, CALIFORNIA 94580
(415) 670-5853

FIRE PERMIT APPLICATION

INSTRUCTIONS

The Fire Code of Alameda County requires a Permit from the Fire Prevention Bureau be obtained by individuals or businesses engaged in operations listed on the reverse side of this application. Please complete this application as required and submit it to above address.

BUSINESS NAME: DECON Environmental Services, Inc.

BUSINESS PHONE NO.: 732-6444
415/[illegible]

BUSINESS ADDRESS: 26102 Eden Landing Road, Suite 4; Hayward CA 94545

ZIP CODE:

MAILING ADDRESS: same as business address

ZIP CODE:

OWNER OR AUTHORIZED REPRESENTATIVE: Warren [illegible] Dodge Warren Dodge (Vice President)

The above named Business/Individual hereby makes application for a Permit in accordance with applicable Codes and Ordinances for the following type of operation (refer to reverse side for appropriate category):

ENTER ITEM NUMBER • DESCRIPTION • FIRE CODE ARTICLE NO.

ITEM NO.	DESCRIPTION	FIRE CODE ARTICLE NO.
18	Underground storage tank removal (waste oil & gasoline, 2 tanks)	79

COMMENTS:

NOTE

Once issued, this Permit must be kept on the premises, and shall not take the place of any License required by law. Permits must be renewed on or before the expiration date, and shall not be transferable and any change in use, occupancy, operation, or ownership shall require a new Permit. Upon acceptance of a Permit, the Permittee agrees to comply with all Ordinance provisions now adopted or that may be hereafter adopted.

SIGNATURE OF APPLICANT: Warren Dodge

DATE: 5/24/90

DO NOT FILL IN BELOW — FOR FIRE DEPARTMENT USE ONLY

PERMIT NUMBER	EXPIRATION DATE	PERMIT APPROVED	PERMIT DENIED
90-601	6-7-90	☑	☐

COMMENTS: Removal - 6-5-90 @ 1100 -

PERMIT ISSUED BY: [illegible]

DATE: 6/[illegible]/90

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

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

NOTIFICATION FORM

[X] Removal or Replacement of Tanks.

[ ] Excavation of Contaminated Soil

SITE INFORMATION

SITE ADDRESS 19100 Mission Blvd

CITY, STATE, ZIP Eden Consolidated, CA (unincorporated Hayward) 94541

OWNER NAME NIP Associates

SPECIFIC LOCATION OF PROJECT Parking lot

TANK REMOVAL

SCHEDULED STARTUP DATE 6/5/90

VAPORS REMOVED BY:

[x] WATER WASH

[x] VAPOR FREEING (CO^2)

[x] VENTILATION

CONTAMINATED SOIL EXCAVATION

SCHEDULED STARTUP DATE _____

STOCKPILES WILL BE COVERED? YES ____ NO ____

ALTERNATIVE METHOD OF AERATION (DESCRIBE BELOW):

_____

(MAY REQUIRE PERMIT)

CONTRACTOR INFORMATION

NAME DECON Environmental Services, Inc CONTACT Warren Dodge

ADDRESS 26102 Eden Landing Road, Suite 4 PHONE (415) 732-6444

CITY, STATE, ZIP Hayward, CA 94545

CONSULTANT INFORMATION
(IF APPLICABLE)

NAME None CONTACT _____

ADDRESS _____ PHONE ( ) _____

CITY, STATE, ZIP _____

FOR OFFICE USE ONLY

DATE RECEIVED _____ BY _____ (INIT.)

CC: INSPECTOR NO. _____ DATE _____ BY _____ (INIT.)

TELEPHONE UPDATE: CALLER _____ CHANGE MADE _____

BAAQMD N # _____

1/89

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-9[illegible])
Please print or type. (Form designed for use on elite (12-pitch) typewriter).

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number 90203858

3. Generator's Name and Mailing Address
MTP Associates
19100 Mission Blvd. Hayward, CA 94541
4. Generator's Phone (415) 886-[illegible]

B. State Generator's ID

5. Transporter 1 Company Name: [illegible] Environmental Services Inc
6. US EPA ID Number
C. State Transporter's ID
D. Transporter's Phone

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Hedrick Distributors
210 Encinal
Santa Cruz, CA [illegible]
10. US EPA ID Number
G. State Facility's ID
H. Facility's Phone

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Petroleum Hydrocarbon contaminated Water (Non-RCRA Hazardous Waste Liquid)	1	T [illegible]	[illegible]	[illegible]	State 223; EPA/Other None
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
Water contaminated with gas and oil; tank rinsate

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Avoid contact. Wear appropriate protective clothing and equipment.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	[illegible]	[illegible]	[illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]			

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	[illegible]	[illegible]	[illegible]

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

GREEN: HAULER RETAINS

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)   2030
Please print or type. *(Form designed for use on elite (12-pitch) typewriter).*

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
[illegible]	[illegible]		

3. Generator's Name and Mailing Address
SIP Associates
16993 Grovenor Dr. Castro Valley, CA 94546
4. Generator's Phone (415) 886-5300

A. State Manifest Document Number 90203857
B. State Generator's ID [illegible]

5. Transporter 1 Company Name: DECON Environmental Services
6. US EPA ID Number: [illegible]
C. State Transporter's ID [illegible]
D. Transporter's Phone [illegible]

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Erickson, Incorporated
255 Parr Blvd. Richmond, CA 94801
10. US EPA ID Number: [illegible]
G. State Facility's ID CAD009466392
H. Facility's Phone (415) 235-[illegible]

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste, empty storage tanks: Non-RCRA ~~Hazardous~~ Hazardous Waste Solids	002	[illegible]	1,000	P	State 512; EPA/Other None
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
1-/Empty, unleaded Gasoline Tank # 3648, iced with 15 lbs. dry ice per 1,000 gal. capacity.
1-/Empty, waste Oil Tank # 3649, iced with 15 pounds dry ice per 1,000 gal. capacity.

K. Handling Codes for Wastes Listed Above
a. 01 b. c. d.

15. Special Handling Instructions and Additional Information
Avoid contact. Wear appropriate protective equipment & clothing
Site address: 19100 Mission Blvd. Hayward, CA
Tank # 3648 3649

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month Day Year
Timothy T. Coffin	[signature]	[illegible]

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year
Shannon Lowry	[signature]	06 05 90

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

GREEN: HAULER RETAINS

ERICKSON, INC.
TANK CERTIFICATION

CUSTOMER: NIP Associates GENERATOR NIP Associates

LOCATION: 19100 Mission Blvd. Hayward CA EPA I.D.. # CAC000282985

HAZ. WASTE TAX #: _____ MANIFEST # 90203857

1. TANK # -	3648	3649				
CAPACITY -						
DIAMETER -						
LENGTH -						
STEEL/ GLASS -						
LAST CONTAINED- (SEE TABLE A)						

TABLE A: LG-LEADED GAS, UG-UNLEADED GAS, D-DIESEL, WO-WASTE OIL, FO-FUEL OIL, SPECIFY MATERIAL LAST CONTAINED IF OTHER.

** I hereby declare that the tank(s) listed above are fully and accurately described, and that the tank(s) have been numbered to correspond with the information provided above.

2. CUSTOMER SIGNATURE _____ DATE _____

3. TANK PROCESSING: JOB # _____

REC'VD -						
CLEANED -						
G.F.CERT-						
OFF SITE-						
DEST. -						
WASTE SOLIDS -						
WASTE RINSATE -						
WASTE OIL -						

ERICKSON SUPERVISOR SIGNATURE _____ DATE _____

For assistance in completing this form call Shannan Lowry (415)235-1393

(Rev. 5/4/89)

DECON
ENVIRONMENTAL SERVICES INC.

[redacted] TO [redacted]

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
287	NIP ASSOCIATES

SAMPLERS: *(Signature)* (Printed)

PARAMETERS

INDUSTRIAL HYGIENE SAMPLE: Y / N

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH-GAS	BTEX 5030	PET OIL (6030)	REMARKS
287-01	6-5			✓	FUEL TANK	1	✓	✓		
287-02	6-5			✓	WASTE OIL TANK	1			✓	

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Manuel Petterle	6-5-90 / 12:30				
(Printed) Manuel Petterle		(Printed)	(Printed)		(Printed)

Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks
			6/5/90 / 12:30	24 TAT
(Printed)		(Printed) Wright		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink)

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 52099
CLIENT: Decon Environmental Services
CLIENT JOB NO.: 287

DATE RECEIVED: 06/05/90
DATE REPORTED: 06/06/90

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 5030 and 8015

LAB #	Sample Identification	Concentration (mg/kg) Gasoline Range
1	287-01	ND<1

mg/kg - parts per million (ppm)
Minimum Detection Limit for Gasoline in Soil: 1mg/kg

QAQC Summary:
Daily Standard run at 2mg/L: %DIFF Gasoline = <15
MS/MSD Average Recovery = 99%: Duplicate RPD = 8%

Richard Srna, Ph.D.
Laboratory Director

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 52099
CLIENT: Decon Environmental Services
CLIENT JOB NO.: 287

DATE RECEIVED: 06/05/90
DATE REPORTED: 06/06/90

ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES
by EPA SW-846 Methods 5030 and 8020

LAB #	Sample Identification	Concentration(ug/kg) Benzene	Toluene	Ethyl Benzene	Xylenes
1	287-01	4	3	ND<3	ND<3

g/kg - parts per billion (ppb)

Minimum Detection Limit in Soil: 3.0ug/kg

QAQC Summary:
Daily Standard run at 20ug/L: %DIFF = <15
MS/MSD Average Recovery = 93% : Duplicate RPD = 1%

Richard Srna, Ph.D.
Laboratory Director

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 52099
CLIENT: Decon Environmental Services
CLIENT JOB NO.: 287

DATE RECEIVED: 06/05/90
DATE REPORTED: 06/06/90

ANALYSIS FOR TOTAL OIL AND GREASE
by EPA Method 503E

LAB #	Sample Identification	Concentration (mg/kg) Total oil & grease
2	287-02	51

mg/kg - parts per million (ppm)

Minimum Detection Limit for oil & grease in Soil: 20mg/kg

QAQC Summary:
Avg MS/MSD Recovery = 75%
Duplicate RPD = 3%

Richard Srna, Ph.D.
Laboratory Director

DECON
ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
287	NIP ASSOCIATES

SAMPLERS: (Signature) K.W. Kincaid (Printed) K.I KINCAID

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	503E	REMARKS
287-001	6-8	1500		✓	EXCAVATION PIT OIL TANK @ 1 FT	1	✓	
287-002	6-8	1510		✓	EXCAVATION PIT OIL TANK @ 2 FT	1		Hold sample
287-003	6-8	1515		✓	EXCAVATION PIT OIL TANK @ 3 FT	1		Hold sample
287-004	6-8	1525	✓		EXCAVATED SOIL/ SAND FROM PIT	1	✓	

INDUSTRIAL HYGIENE SAMPLE: Y / N

PARAMETERS

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
K.W. Kincaid	6-8-90 1520	Thomas E. Leep	Thomas E. Leep	6890 6:26	
(Printed) Ken Kincaid		(Printed) Thomas E. Leep	(Printed) Thomas E. Leep		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
			6/8 6:26	48 TAT	
(Printed)		(Printed)			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

DECON Environmental Services	Client Project ID:	NIP Associates	Sampled:	Jun 8, 1990
26102 Eden Landing Road, Suite 4	Matrix Descript:	Soil	Relogged:	Jun 14, 1990
Hayward, CA 94545	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Jun 14, 1990
Attention: Chris Kwoka	First Sample #:	0061970R	Analyzed:	Jun 15, 1990
			Reported:	Jun 18, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
006-1970	287-003	N.D.

Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Cynthia H. Camba
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

DECON Environmental Services	Client Project ID:	287 / NIP Associates	Sampled:	Jun 8, 1990
26102 Eden Landing Road, Suite 4	Matrix Descript:	Soil	Received:	Jun 8, 1990
Hayward, CA 94545	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Jun 11, 1990
Attention: Ken Kincaid	First Sample #:	006-1199	Analyzed:	Jun 12, 1990
			Reported:	Jun 13, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)	
006-1199	287-001	140	IFT
006-1200	287-004	770	Comp.

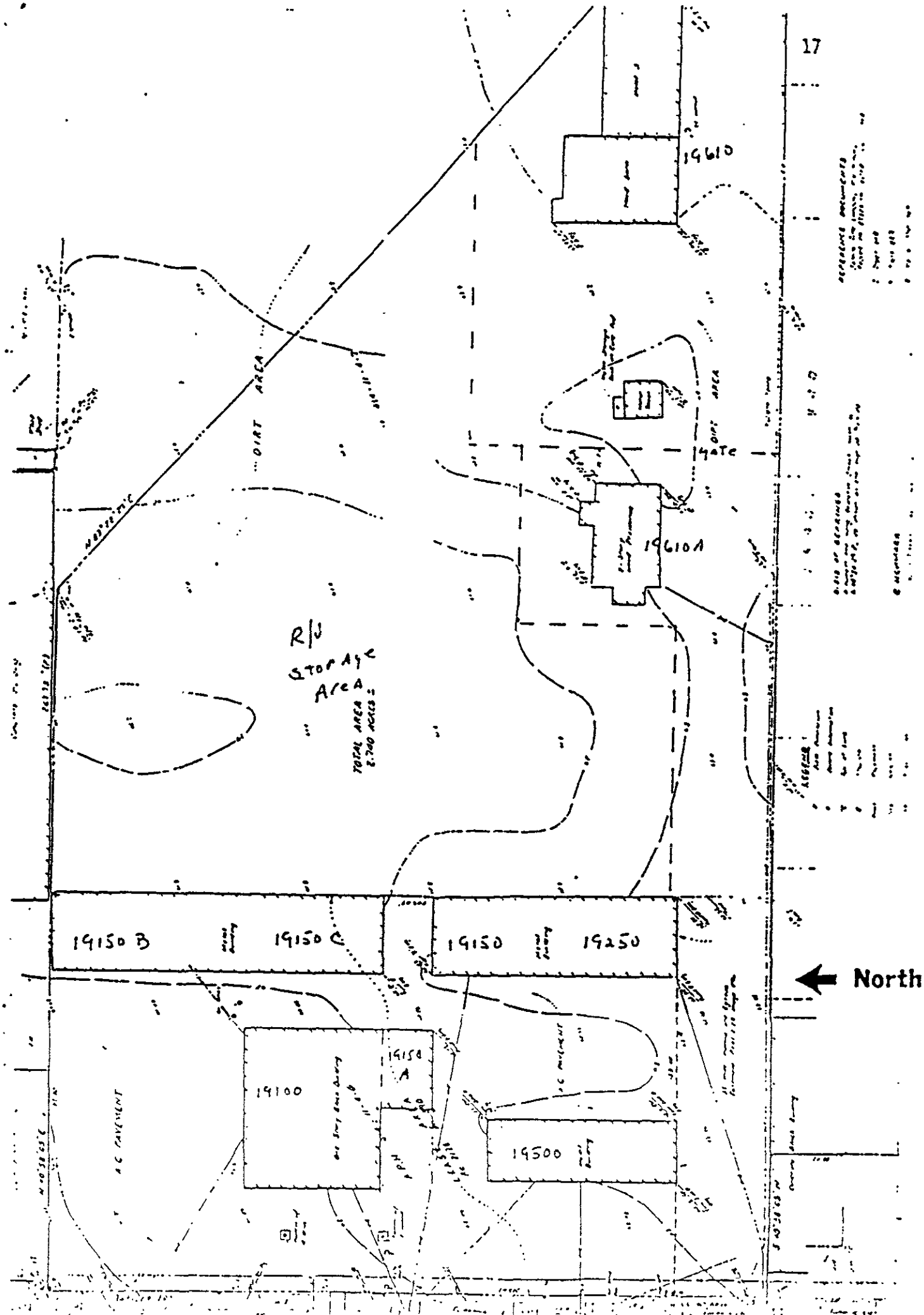
Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Cynthia H. Camba
Project Manager

81199.DEC <1>


17
19610
DIRT AREA
19610A
R/V
STORAGE
AREA
TOTAL AREA
2.240 ACRES
19150 B
19150 C
19150
19250
North
19100
19150 A
19500

ATTACHMENT B

SITE HEALTH AND SAFETY PLAN

SITE HAZARD INFORMATION

FC 1006 (05-11-90)

PLEASE PROVIDE THE FOLLOWING INFORMATION FOR THE SITE

Owners Name: N.I.P. Associates

Site Address: 19100 Mission Blvd
Hayward, CA

Directions to Site: HWY 238 to East 14th / Mission Blvd exit. South on East 14th and Mission Blvd to 19100. (East 14th becomes Mission Blvd south of HWY 238)

Consultant On Site: Hageman-Aguiar, Inc. Phone Number: (510) 284-1661

Site Safety Officer: Gary Aguiar Phone Number: (510) 284-1661

Type of Facility: Storage Yard mobile phone: (415)710-2844

Site Activities: ☒ Drilling ☐ Construction ☐ Tank Excavation ☐ Soil Excavation ☐ Work in Traffic Area

☐ Groundwater Extraction ☐ Vapor Extraction ☐ In Situ Remediation ☐ Above Ground Remediation

☐ Other:

Hazardous Substance

Name (CAS#)	Expected Concentration ☒ Soil ☐ Water ☐ Air	Health Affects
Oil & Grease	< 1,000 mg/kg (ppm)	
Volatile Pet. Hydrocarbons	< 100 mg/kg (ppm)	dizziness, eye irritation, headache, nose & throat irrit.

Physical Hazards (possible)

☒ Noise ☐ Excavations/Trenches

☐ Traffic ☐ Other

☐ Underground Hazards

☐ Overhead Hazards

Potential Explosion and Fire Hazards (Flammable Range = 1% to 10% Gas Vapor):

Level Of Protection Equipment

☐ A ☐ B ☒ C ☒ D ☐ See Personal Protective Equipment

Personal Protective Equipment

R = Required A = As Needed

R	Hard Hat	R	Safety Eyewear (Type)
R	Safety Boots	A	Respirator (Type) half-face
	Orange Vest		Filter (Type) carbon (organic vapor)
A	Hearing Protection	R	Gloves (Type) Rubber
A	Tyvek Coveralls		Other
	5 Minute Escape Respirator		

SITE HAZARD INFORMATION

FC 1006 (05-11-90)

Monitoring Equipment on Site

☐	Organic Vapor Analyzer	☐	PID with lamp of _____ eV
☐	Oxygen Meter	☐	Draeger Tube _____
☒	Combustible Gas Meter	☐	Passive Dosimeter
☐	H_2S Meter	☐	Air Sampling Pump
☐	W.B.G.T.	☐	Filter Media _____

Site Control Measures FID meter on-site. Public access restricted by existing perimeter fencing.

Decontamination Procedures Equipment steam-cleaned on-site. Rinseate stored in DOT 17H drums. Gloves, tyvek suits to be disposed of with drill cuttings. Personnel to wash with soap and water prior to eating and/or leaving site.

Hospital/Clinic Eden Hospital Medical Center Phone (510) 537-1234

Hospital Address 20103 Lake Chabot Rd, Castro Valley

Paramedic 911 Fire Dept. 911 Police Dept. 911

Emergency/Contingency Plans & Procedures (510)293-5500 (510)293-7000

Site Hazard Information Provided By: Gary Aguiar Phone Number: (510) 284-1661

Gary Aguiar
Print

Gary Aguiar
Signature

Date: 10/28/92

Eden Hospital Medical Center
20103 Lake Chabot Road
Castro Valley
(510)537-1234

HEALTH AND SAFETY PROCEDURES
FOR
FIELD INVESTIGATION OF UNDERGROUND SPILLS OF
MOTOR OIL AND PETROLEUM DISTILLATE FUEL

1.0 PURPOSE

This operating procedure established minimum procedures for protecting personnel against the hazardous properties of motor oil and petroleum distillate fuels during the performance of field investigations of known and suspected underground releases of such materials. The procedure was developed to enable health and safety personnel and project managers to quickly prepare and issue site safety plans for investigations of such releases.

2.0 APPLICABILITY

This procedure is applicable to field investigations of underground releases of the substances listed below and involving one or more of the activities listed below.

Substances

Motor oil (used and unused)
Leaded and unleaded gasoline
No. 1 Fuel oil (kerosene, JP-1)
No. 1-D Fuel oil (light diesel)
No. 2 Fuel oil (home heating oil)
No. 2-D Fuel oil (medium diesel)
No. 4 Fuel oil (residual fuel oil)
No. 5 Fuel oil (residual fuel oil)
No. 6 Fuel oil (Bunker C fuel oil)
JP-3, 4 & 5 (jet fuels)
Gasahol

Activities

Collection of samples of subsurface soil with aid of truck-mounted drill rig, hand-held power auger or hand auger.

Construction, completion and testing of groundwater monitoring wells.

Collection of groundwater samples from new and existing wells.

Observing removal of underground fuel pipes and storage tanks.

This procedure must not be used for confined space entry (including trench entry) or for installing or operating pilot and full-scale fuel recovery systems.

No safety plans needed for non-intrusive geophysical surveys, reconnaissance surveys and collection of surface soil, surface water and biota.

3.0 RESPONSIBILITY AND AUTHORITY

Personnel responsible for project safety are the Business Unit Health and Safety Officer (HSO), the Project Manager (PM) and the Site Safety Officer (SSO).

The HSO is responsible for reviewing and approving site safety plans and any addenda and for advising both PM and SSO on health and safety matters. The HSO has the authority to audit compliance with the provisions of site safety plans. suspend work or modify work practices for safety reasons, and to dismiss from the site any individual whose conduct on site endangers the health and safety of others.

The PM is responsible for having site safety plans prepared and distributing them to all field personnel and to an authorized representative of each firm contracted to assist with on-site work. The PM is also responsible for ensuring that the provisions of safety plans and their addenda are carried out.

The SSO is responsible for assisting the PM with on site implementation of site safety plans. Responsibilities include:

1. Maintaining safety equipment supplies.

2. Performing or supervising air quality measurements.

3. Directing decontamination operations and emergency response operations.

4. Setting up work zone markers and signs if such zones are specified in the site safety plan.

5. Reporting all accidents, incidents and infractions of safety rules and requirements.

6. Directing other personnel to wear protective equipment when use conditions described in Section 5.0 are met.

The SSO may suspend work anytime he/she determines that the provisions of the site safety plan are inadequate to ensure worker safety and inform the PM and HSO of individuals who on-site behavior jeopardizes their health and safety or the health and safety of others.

4.0 HAZARD EVALUATION

Motor oil and petroleum distillate fuels are mixtures of aliphatic and aromatic hydrocarbons. The predominant classes of compounds in motor oil, gasoline, kerosene and jet fuels are the paraffins (e.g., benzene, toluene). Gasoline contains about 80 percent paraffins, 6 percent naphthenes, and 14 percent aromatic. Kerosene and jet fuels contain 42-48 percent paraffins, 36-38 percent naphthenes, and 16-20 percent aromatic. Diesel fuels and heating oils contain less than 10 percent paraffins, 14-23 percent naphthenes, and 68-78 percent non-volatile aromatic. These heavier fuels contain almost no volatile aromatic compounds. Chemicals are usually added to automotive and aviation fuels to improve their burning properties. Examples are tetraethyl-lead and ethylene dibromide. Most additives are proprietary materials.

Flammability

Crude oil and petroleum distillate fuels possess two intrinsic hazardous properties, namely, flammability and toxicity. The flammable property of the oil and fuels presents a far greater hazard to field personnel than toxicity because it is difficult to protect against and can result in catastrophic consequences. Being

flammable, the vapors of volatile components of crude oil and the fuels can be explosive when confined.

The lower flammable or explosive limits (LFL or LEL) of the fuels listed in SEction 508.2 range from 0.6 percent for JP-5 to 1.4 percent for gasolines. LFL and LEL are synonyms. Flash points range from -36°F for gasoline to greater than 150°F for No. 6 fuel oil. JP-5 has a flash point of 140°F. Although it has a lower LEL than gasoline, it can be considered less hazardous because its vapors must be heated to a higher temperature to ignite.

Crude oil and petroleum distillate fuels will not burn in the liquid form; only the vapors will burn and only if the vapor concentration is between the upper and lower flammable limits, sufficient oxygen is present, and an ignition source is present. If these conditions occur in a confined area an explosion may result.

The probability of fire and explosion can be minimized by eliminating any one of the three factors needed to produce combustion. Two of the factors -- ignition source and vapor concentration -- can be controlled in many cases. Ignition can be controlled by prohibiting open fires and smoking on site, installing spark arrestors on drill rig engines, and turning the engines off when LELs are approached. Vapor concentrations can be reduced by using fans. In fuel tanks, vapor concentrations in the head space can be reduced by introducing dry ice (solid carbon dioxide) into the tank; the carbon dioxide gas will displace the combustible vapors.

Toxicity

Crude oil and petroleum distillate fuels exhibit relatively low acute inhalation and dermal toxicity. Concentrations of 160 to 270 ppm gasoline vapor have been reported to cause eye, nose and throat irritation after several hours of exposure. Levels of 500 to 900 ppm can cause irritation and dizziness in one hour, and 2000 ppm produces mile anesthesia in 30 minutes. Headaches have been reported with exposure to 25 ppm or more of gasoline vapors measured with a photoionization meter. Most fuels, particularly gasoline, kerosene and jet fuels are capable of causing skin irritation after several hours contact with the skin.

Petroleum fuels exhibit moderate oral toxicity. The lethal dose of gasoline in children has been reported to be as low as 10-15 grams (2-3 teaspoons). In adults, ingestion of 20-50 grams of gasoline may produce severe symptoms of poisoning. If liquid fuel aspirated (passed in to the lungs) gasoline and other petroleum distillate fuels may cause secondary pneumonia.

Some of the additives to gasoline, such as ethylene dichloride, ethylene dibromide, and tetraethyl and tetramethyl lead,are highly toxic; however, they are present in such low concentrations that their contribution to the overall toxicity of gasoline and other fuels is negligible in most instances.

OSHA has not developed permissible workplace exposure limits for crude oil and petroleum distillate fuels. It recommends using permissible exposure limits for individual components, such as benzene. ACGIH has established a permissible exposure limit of 300 ppm for gasoline. The limit took into consideration the average concentration of benzene in gasoline (one percent) as well as its common additives. Exposure limits established by other countries range from 250 to 500 ppm. Chemical data sheets, prepared for the U.S. Coast Guard's Chemical Hazard Information System (CHRIS), list 200 ppm as the permissible exposure limit for kerosene and jet fuels. This limit was not developed by NIOSH/OSHA or ACGIH.

5.0 HEALTH AND SAFETY DIRECTIVES

5.1 Site-Specific Safety Briefing

Before field work beings, all field personnel, including subcontractor employees, must be briefed on their work assignments and safety procedures contained in this document.

5.2 Personal Protective Equipment

The following equipment should be available on-site to each member of the field team:

- NIOSH-approved full or half-face respirator with organic vapor cartridges (color coded black)
- Saranex or polyethylene-coated Tyvek coveralls
- Splash-proof safety goggles
- Nitrile or neoprene gloves
- Neoprene or butyl boots, calf-length with steel toe and shank
- Hardhat

Equipment Usage

Chemical-resistant safety boots must be worn during the performance of work where surface soil is obviously contaminated with oil or fuel, when product quantities of oil or fuel are likely to be encountered, and within 10 feet of operating heavy equipment.

Respirators must be worn whenever total airborne hydrocarbons levels in the breathing zone of field personnel reach or exceed a 15-minute average of 25 ppm. If total airborne hydrocarbons in the breathing zone exceeds 100 ppm, work must be suspended, personnel directed to move a safe distance from the source, and the HSO or designee consulted.

Chemical resistant gloves must be worn whenever soil or water known or suspected of containing petroleum hydrocarbons is collected or otherwise handled.

Chemical resistant coveralls must be worn whenever product quantities of fuel are actually encountered and when oil or fuel-saturated soil is handled.

Safety goggles must be worn when working within 10 feet of any operating heavy equipment (e.g., drill rig, backhoe). Splash-proof goggles or face shields must be worn whenever product quantities of oil or fuel are encountered.

Hardhats must be worn when working within 10 feet of an operating drill rig, backhoe or other heavy equipment.

Operators of some facilities, such as refineries, often require all personnel working within facility boundaries to wear certain specified safety equipment. Such requirements shall be strictly observed

5.3 Vapor Monitoring

Required Equipment

--- Organic vapor meter with flame or photoionization detector
--- Combustible gas meter

Monitoring Requirements and Guidelines

Vapor monitoring shall be performed as often as necessary and whenever necessary to protect field personnel from hazardous vapors. Monitoring must be performed by individuals trained in the use and care of the monitoring equipment.

During drilling operations, vapor emissions from boreholes must be measured whenever the auger is removed from the boring and whenever flights are added or removed from hollow-stem augers. This requirement does not apply to borings less than five feet deep and borings of any depth made to install monitoring wells in uncontaminated soils. Measurements should be made initially with an organic vapor meter, followed with a combustible gas meter if vapor levels exceed the highest concentration measurable with the organic vapor meter.

Initially measurements shall be made about 12 inches from the bore hole, both upwind and downwind positions. If the total hydrocarbon concentrations exceed the respirator use action level (See Section 508.5.2), measurements must be made in the breathing zone of the individual(s) working closest to the borehole. Decisions regarding respiratory protection should be made using vapor concentrations in the breathing zone.

Organic vapor meters capable of being operated continuously without attention may be operated in that fashion if desired. However, the instrument must be equipped with an alarm set to sound when vapor concentrations reach 25 ppm and must be protected against physical damage and soilage.

If total organic vapor concentrations within 12 inches of the borehole exceed the capacity of the organic vapor meter, a combustible gas meter (CGM) must be used to determine if explosive conditions exist. Operations must be suspended, the drill rig motor shut down, and corrective action taken if combustible gas concentrations reach 40 percent of LEL within a 12-inch radius of

the borehole or 10 percent of LEL at a distance greater than 24 inches from the borehole. This procedure must also be followed whenever the organic vapor meter goes offscale at its highest range and no CGM is available. If corrective action cannot be taken, field personnel and all other individuals in the vicinity of the borehole must be directed to move to a safe are and the local fire department and facility management must be alerted.

Organic vapor meters with flame ionization detectors (FID) are much more sensitive to paraffins, with the major component of gasoline, kerosene, and jet fuels, then are meters with 10.0 or 10.2 eV photoionization detectors. As the data in Table 1 show, an FID instrument, such as the Century Systems OVA (Foxboro Analytical), will detect 70-90 percent of actual paraffin concentrations, whereas PID instruments, such as the HNU Model PI-101, AID Model 580, and Photovac TIP with 10.0 to 10.2 eV lamp will detect only 17-25 percent of actual paraffin concentrations when calibrated with benzene and only 24-35 percent when calibrated with isobutylene. Both types of meters are equally sensitive to most aromatic, including benzene, toluene, xylene and ethylbenzene. For these compounds, meter readings equal or exceed 100 percent of actual concentrations. PIDs with 11.7 eV lamps are extremely sensitive to paraffins and aromatic. When calibrated to isobutylene, an 11.7 eV PID will register about twice actual paraffin concentrations and 100 percent or more of actual concentrations of benzene, toluene, and xylene.

An FID meter, recently calibrated with methane and in good working condition, can be expected to provide readings close enough to actual petroleum hydrocarbon concentrations to make corrections unnecessary. Value obtained with a PID must be corrected when measuring for paraffins. For 10.0 and 10.2 eV PIDs, the meter reading should be multiplied by 5 if the instrument is calibrated with benzene. If the instrument is calibrated with isobutylene, the meter readings should be multiplied by 3. If the instrument is equipped with an 11.7 eV probe and is calibrated with isobutylene, the meter reading should be divided by 2.

5.4 Area Control

Access to hazardous and potential hazardous areas of spill sites must be controlled to reduce the probability of occurrence of physical injury and chemical exposure of field personnel, visitors and the public. A hazardous or potentially hazardous area includes any area where

1. Field personnel are required to wear respirators.

2. Borings are being drilled with powered augers.

3. Excavating operations with heavy equipment are being performed.

The boundaries of hazardous and potentially hazardous areas must be identified by cordons, barricades, or emergency traffic cones or posts, depending on conditions. If such areas are left unattended, signs warning of the danger and forbidding entry must be placed around the perimeter if the areas are accessible to the public. Trenches and other large holes must be guarded with wooded or metal barricades spaced no further than 20 feet apart and connected with yellow or yellow and black nylon tape not less and 3/4-inches wide. The barricades must be placed no less than two feet from the edge of the excavation or hole.

Entry to hazardous areas shall be limited to individuals who must work in those areas. Unofficial visitors must not be permitted to enter hazardous areas while work in those areas is in progress. Official visitors should be discouraged from entering hazardous areas, but may be allowed to enter only if they agree to abide by the provisions of this document, follow orders issued by the site safety officer and are informed of the potential dangers that could be encountered in the areas.

5.5 Decontamination

Field decontamination of personnel and equipment is not required except when contamination is obvious (visually or by odor). Recommended decontamination procedures follow:

Personnel

Gasoline, kerosene, jet fuel, heating oil, gasahol and diesel oil should be removed from skin using a mild detergent and water. Hot water is more effective than cold. Liquid dishwashing detergent is more effective than hand soap. Motor oil and the heavier fuel oils (No. 4-6) can be removed with dishwashing detergent and hot ware also; however, if weathered to an asphaltic condition, mechanic's waterless hand cleaner is recommended for initial cleaning followed by detergent and water.

Equipment

Gloves, respirators, hardhats, boots and goggles should be cleaned as described under personnel; however, if boots do not become clean after washing with detergent and water, wash them with a strong solution of trisodium phosphate and hot water and, if this fails, clean them with diesel oil followed by detergent and water to remove diesel oil.

Sampling equipment, augers, vehicle undercarriages and tires should be steam cleaned. The steam cleaner is a convenient source of hot water for personnel and protective equipment cleaning.

5.6 Smoking

Smoking and open flames are strictly prohibited at sites under investigation.

TABLE 1
RELATIVE SENSITIVITIES OF FID AND PID INSTRUMENTS TO SELECTED COMPONENTS OF OILS AND PETROLEUM DISTILLATE FUELS

Component	Sensitivity in Percent of Standard		
	FID	PID	
		10.2 eV[a]	11.7 eV[b]
Paraffins			
Pentane	65	--	141
Hexane	70	22 (31)	189
Heptane	75	17 (24)	221
Octane	80	25 (35)	--
Nonane	90		--
Decane	75	--	--
Napthenes			
Cyclopentane	--	--	--
Methylcyclopentane	80	--	--
Cyclohexane	85	34 (40)	--
Methylcyclohexane	100	--	--
Aromatic			
Benzene	150	100 (143)	122
Toluene	110	100 (143)	100
Ethylbenzene	100	--	--
p-Xylene	116	114 (60)	--
Cumene	100	--	--
n-Propylbenzene	--	--	--
Napthaeine	--	--	--

[a] Values are relative to benzene standard. Values in parentheses are relative to isobutylene standard and were calculated.

[b] Values are relative to isobutylene standard.