

STID 1361

CASE CLOSURE REPORT

**Hiro's Nursery
1630 162nd Avenue
San Leandro, ASN 80-63-26, Lot 15
STID 1361**

Prepared for

**Mr. Thomas Peacock
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577**

April 15, 1997



P.O. Box 1630 Pleasanton CA 94566 (510) 462-8261 Fax: (510) 462-9726

ALFA ENVIRONMENTAL REMEDIATION SERVICES, INC.

April 15, 1997

Attn: Mr. Thomas Peacock
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

VIA FACSIMILE AND MAIL

RE: Site Closure for Hiro's Nursery, 1630 162nd Avenue,
San Leandro, ASN 80-63-26 Lot 15, STID 1361.

Dear Mr. Peacock:

Attached is the Case Closure Summary Report for the referenced location. The report summarizes the tank removal, soil excavation, soil sampling, transport and disposal, installation of groundwater monitoring wells, groundwater sampling, well destruction, disposal of excavation pit water, and backfilling of former excavation that has taken place.

Based on previous reports, it is our opinion that no additional groundwater/soil investigations are warranted at this time.

We believe that justification exists to close the open environmental case on 1630 162nd Avenue. On behalf of Mr. Hiro Fukushima, the owner of the site, ALFA Environmental Remediation Services, Inc. (ALFA) requests that you review the case, and, assuming that you come to the same conclusion that we have, issue Mr. Hiro Fukushima a case closure letter for the referenced site.

Please respond to ALFA's request in writing. If you have any questions or comments, please feel free to call (510) 462-8261.

Very truly yours,

ALFA ENVIRONMENTAL REMEDIATION SERVICES, INC.

Valentin Constantinescu, R.E.A.
Senior Geologist

Attachment

cc Mr. Hiro Fukushima

EXECUTIVE SUMMARY

On behalf of Mr. Hiro Fukushima, ALFA Environmental Remediation Services, Inc. (ALFA) has compiled this report to summarize remediation and groundwater monitoring activities at the Hiro's Nursery site located at 1630 162nd Avenue in San Leandro, California. Tank removal, environmental sampling services, and documentation services associated with closure were performed by W. A. Craig, Inc. ALFA installed three groundwater monitoring wells, collected groundwater samples quarterly for one year, and destroyed the wells. Disposal of excavation pit water and backfilling was performed by Mr. Fukushima, using licensed subcontractors.

ALFA has concluded that the site qualifies for case closure because exposure pathways for any residual TPH concentrations are very limited.

INTRODUCTION

On behalf of Mr. Hiro Fukushima, the owner of the site, ALFA has compiled this report to summarize the results of tank removal activities, soil excavation, soil sampling, installation of groundwater monitoring wells and groundwater sampling at the Hiro's Nursery site at 1630 162nd Avenue, San Leandro, California. This report has been compiled in accordance with the standard Case Closure requirements.

This document was prepared for the sole use of Mr. Hiro Fukushima, the Alameda County Health Care Services Agency (ACHCSA), and the Regional Water Quality Control Board (RWQCB), the only intended beneficiaries of our work. No other party should rely on the information contained herein without prior consent from ALFA, which consent shall not be unreasonably withheld.

SITE DESCRIPTION

Location

The site is located at 1630 162nd Avenue, San Leandro, California. A site location map is presented in attachment. Properties located around the site are zoned primarily for residential use. In the past three decades, land use has gradually changed from agricultural to residential.

The subject property contains houses and a greenhouse, as shown in Attachment.

Topography

Topography in the area slopes west toward San Francisco Bay. The site is located at an elevation of approximately 40 feet above mean sea level.

Geology

Based on review of regional geologic maps (U.S. Geological Survey Professional Paper 943 "Flatland Deposit Their Geology and Engineering Properties and Their Importance to Comprehensive Planning" by E. J. Helley and K. K. Lajoie, 1979), the subject site is located on Late Pleistocene alluvium (Qpa) deposits consisting of weakly consolidated, slightly weathered, poorly sorted, irregular interbedded clay, silt, sand and gravel. These layers were deposited from flowing water in stream channels, on stream terraces and on alluvial fans.

Hydrogeology

The groundwater gradient is directed west. Depth to groundwater is approximately 7-10 ft below ground surface.

SITE HISTORY

In front of one of the site garages (see attachment) was a gasoline pump which serviced a 550 gallon underground storage tank (UST) (northern tank). This tank was installed in the 1970's. A second underground storage tank (southern tank) was located adjacent to the small nursery office, on the west side of the property. This gasoline underground storage tank was removed in 1992.

Four soil borings were drilled in the vicinity of the two USTs and tested for total volatile hydrocarbons (TVH) and benzene, toluene, ethylbenzene, and xylenes. Soil samples taken from the soil borings designated SB1 and SB2, located near the east and west ends of the northern UST, presented TVH concentrations at 230 and 79 parts per million (ppm), respectively, p-xylene level was 3 ppm in SB1 and 3ppm in SB2. In addition, m-xylene was detected in SB2 at 7 ppm, making the total xylenes in SB2 equal to 10 ppm. No other BTEX compounds were detected in SB1 and SB2.

On August 31, 1989 a second soil and groundwater sampling event was performed in the area of northern UST. Two soil borings were drilled; SB-5 was drilled slightly upgradient of the tank and SB-6 was drilled approximately 30 feet in the presumed downgradient direction. Analytical results for soil samples collected from SB5 and SB6 indicated that TVH/BTEX compounds were not present above detection limits in the soil beneath the saturated zone in SB5, or in the unsaturated soil in SB-6. Analytical results of grab water samples collected from SB-5 and SB-6 showed 4.5 parts per billion (ppb) of benzene, 9.9 ppb of p-xylene, 0.8 ppb of m-xylene, and 290 ppb of TVH in SB-5. Benzene was the only compound detected in the grab water sample

collected from SB-6, at a concentration of 1.6 ppb. However, these samples may not be representative of groundwater quality, since these are grab samples collected through the augers.

On September 3, 1992 the southern tank was removed. Two soil samples acquired from the tank pit and one composite soil sample from the excavated soil stockpile were tested for Total Petroleum Hydrocarbons as Gasoline (TPH-G), for Benzene, Toluene, Ethylbenzene and Total Xylenes (BTE&X) and for Total Lead. TPH-G and BTEX compounds were below the reporting limit (not detected). Total Lead was present in all soil samples at low levels (5.4 to 6.9 ppm). The former tank pit was backfilled with the excavated soil from the stockpile in accordance with the September 17, 1992 letter signed by Mr. Robert Weston, Hazardous Materials Specialist with Alameda County-Health Care Services Agency.

The northern tank, a 500-gallon underground storage tank (UST) containing gasoline was removed from this site in August of 1994. At the time of the removal the UST was very rusty and pitted over much of the exterior. Holes were found on the upper/lower surfaces and the ends of the tank. One soil sample collected from the bottom of the excavation contained up to 18 parts per million (ppm) of total petroleum hydrocarbon as gasoline (TPH-G) and 0.45 ppm of benzene, 0.025 of toluene, 0.66 ppm of ethylbenzene, and 1.3 ppm of xylenes.

Three groundwater monitoring wells were constructed on May 9, 1995 (see attachment). Soil samples were obtained at 5 ft intervals, for logging using the Unified Soil Classification System and for analyses.

The wells were developed on May 15, 1995 and sampled on May 22, 1995, August 29, 1995, November 30, 1995, and February 29, 1996 in accordance with protocol set forth by the RWQCB in the document titled "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks...Tri-Regional Recommendations".

Soil and groundwater samples were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH-G), for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTE&X), and for Total Lead using EPA-approved Methods.

On May 22, 1995 the elevations of the well heads were surveyed using an Alameda County benchmark located in the South-East corner of intersection of Maubert Avenue and 162nd Avenue.

The groundwater flow direction and the gradient value was calculated for each quarter.

In a letter dated August 28, 1996 (see attachment), Mr. Dale Klettke of the ACHCSA stated that the subject site was evaluated for closure as a "Low-Risk Groundwater

Case² and requested some additional information regarding the excavated soil, backfilling, and disposal of the excavation pit water.

Soil samples were collected from the stockpiled soil and water from the excavation pit in the presence of Mr. Klettke. Laboratory results revealed non-detectable concentrations of TPH-Gasoline and BTEX in both the soil and water samples.

In a letter dated November 14, 1996 (see attachment), Mr. Klettke approved the use of the stockpiled soils as a backfill and requested that documentation for the final disposal of excavation pit water be provided.

On March 19, 1997 the three groundwater monitoring wells were destroyed under permit (see attachment).

On March 31, 1997 the excavation pit groundwater was removed by Clearwater Environmental Management, Inc. (see attachment) and the excavation pit was backfilled and compacted with clean, imported soils and with stockpiled soils.

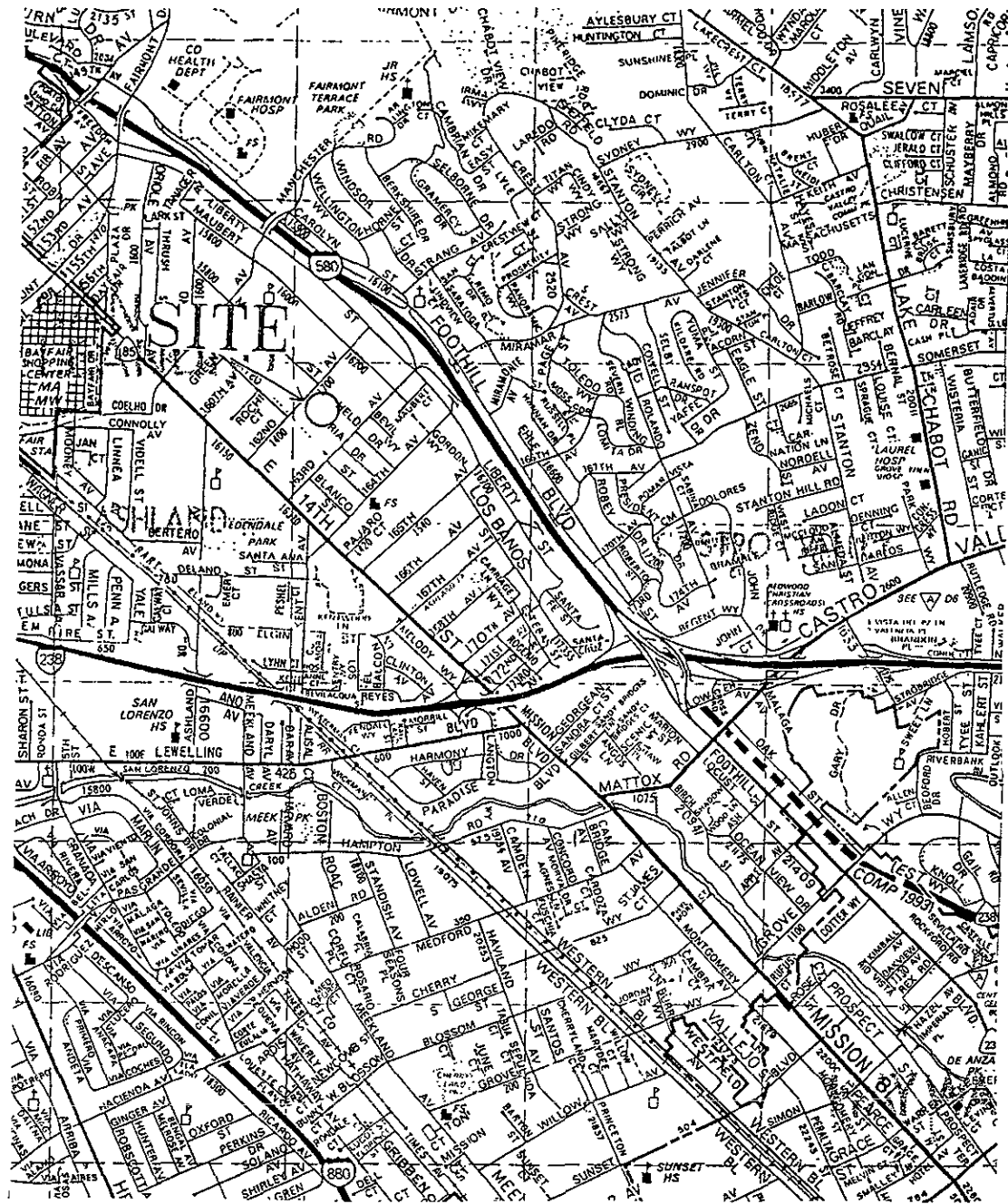
Details and copies of the laboratory results have been presented in previous reports. Workplans have been submitted and approved by Mr. Scott Seary and Mr. Dale Klettke, hazardous materials specialists with the ACHCSA.

CONCLUSIONS

Soil and groundwater analytical results indicate that TPH-G, and BTEX compounds are below the level of detection. Traces of Total Lead were detected in soil. These values for Total Lead are well below any regulatory level.

Because groundwater has not been impacted, we believe that further discussion of hydrogeology, especially with respect to transport of contamination, is not warranted.

Available data indicates that soil contamination has been appropriately remediated and the site meets ACHCSA and RWQCB standards. Groundwater appears to not have been impacted to date. Because the source of hydrocarbons (the underground storage tank and the significantly contaminated soil) have been removed, and the residual contamination remaining in the soil is low, future significant negative impacts upon groundwater appear unlikely.



<p>Environetics Geo-Engineering</p>		<p>HIRO'S NURSERY, INC. 1630 162nd AVENUE, SAN LEANDRO, CA 94578</p> <p>SITE LOCATION MAP</p>	<p>Plate 1</p>
<p>Project No. 70721</p>	<p>Drawn by: V. N. C.</p>		
<p>Date: 10/15/92</p>	<p>Checked by: J. P. B.</p>		

7-12-1989

162nd STREET

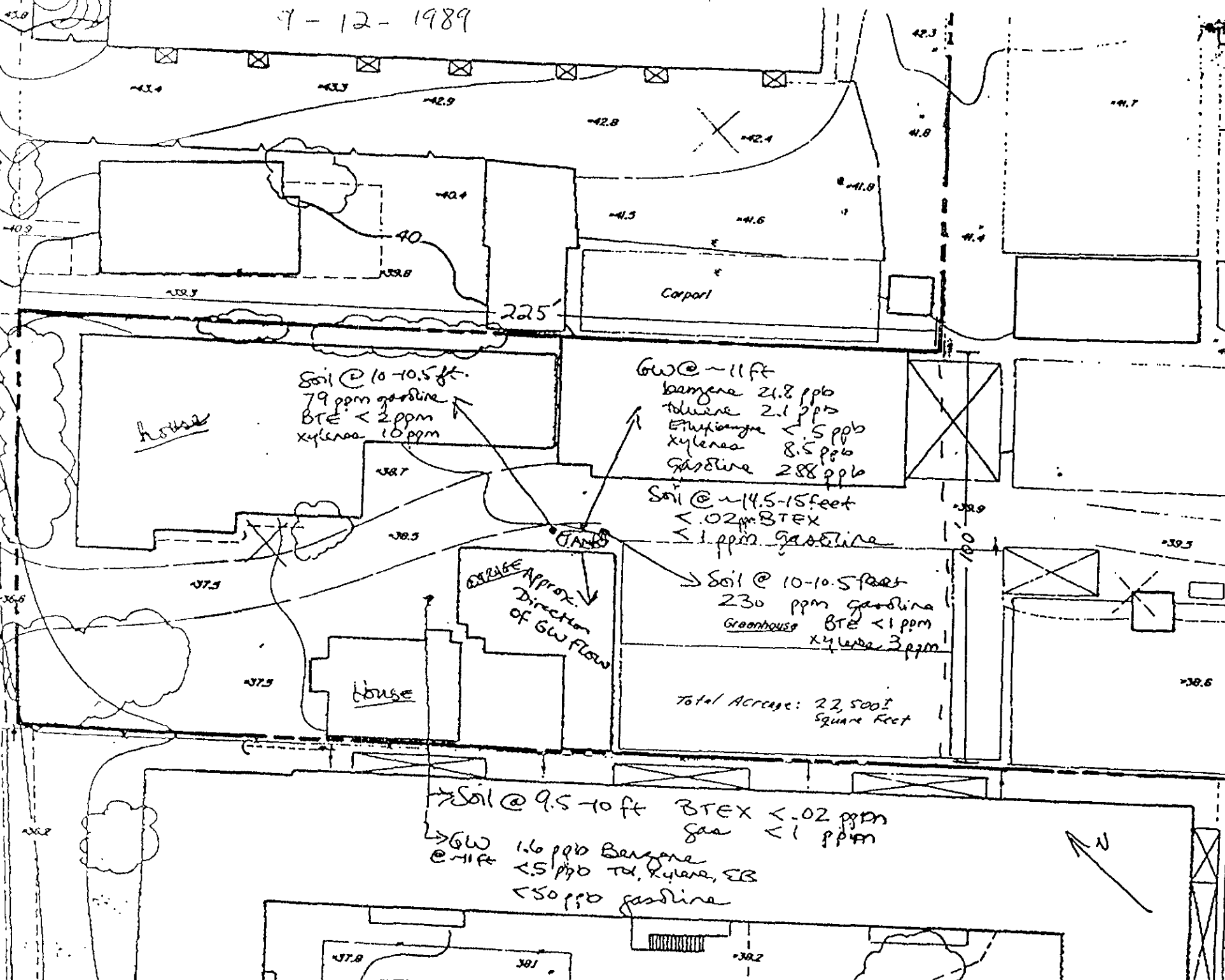
37.6

36.8

36.5

36.4

EXHIBIT "A"



house

Soil @ 10-10.5 ft.
 79 ppm gasoline
 BTEX < 2 ppm
 xylene 10 ppm

GW @ ~11 ft
 benzene 21.8 ppb
 toluene 2.1 ppb
 Ethylbenzene < 5 ppb
 xylene 8.5 ppb
 gasoline 288 ppb

Soil @ ~14.5-15 feet
 < .02 ppm BTEX
 < 1 ppm gasoline

Garage
 Approx. Direction of GW Flow

Soil @ 10-10.5 feet
 230 ppm gasoline
 Greenhouse BTEX < 1 ppm
 xylene 3 ppm

house

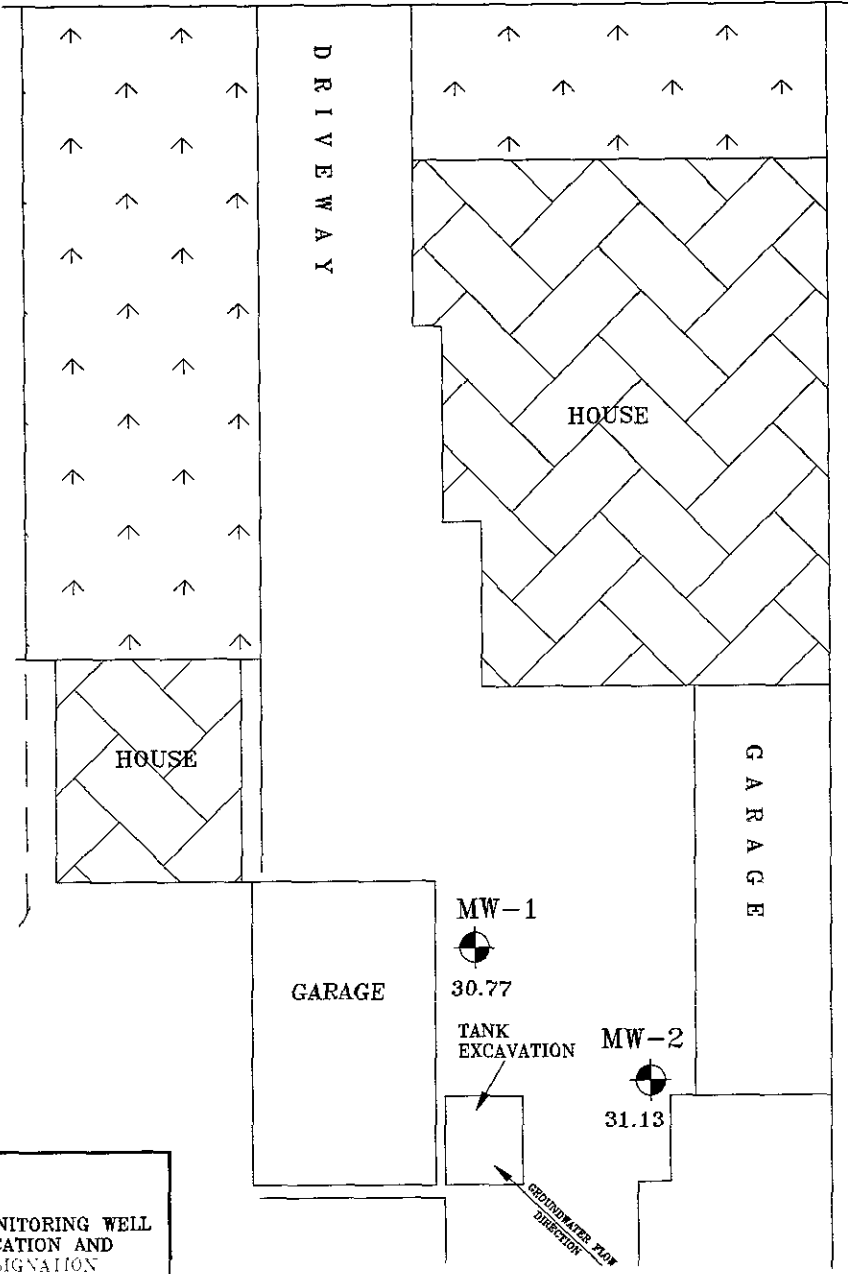
Total Acreage: 22,500[±]
 Square Feet

Soil @ 9.5-10 ft BTEX < .02 ppm
 Gas < 1 ppm
 GW @ ~11 ft 1.6 ppb Benzene
 < 5 ppb Tol, Xylene, EB
 < 50 ppb gasoline



C/L

162nd AVENUE



LEGEND:

MW-1 MONITORING WELL LOCATION AND DESIGNATION



30.77 GROUNDWATER ELEVATION

SCALE (ft)

0 20

GREENHOUSE

MW-3



31.29

NOTE: GROUNDWATER FLOW DIRECTION N BY W
GRADIENT VALUE = 0.014 FT/FT



ALFA ENVIRONMENTAL REMEDIATION SERVICES

HIRO'S NURSERY
1630 162nd AVENUE.
SAN LEANDRO, CALIFORNIA

Plate

1

Project No 95023

Drawn by V.N.C.

Date: 8/29/95

Checked by M.D.K.

SITE MAP



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE, PLEASANTON, CALIFORNIA 94588-5127 PHONE (510) 484-2600 X235
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 1630 162nd AVENUE
SAN LEANDRO, CALIFORNIA

PERMIT NUMBER 97154
WELL NUMBER 3S/2W 5M80 to 5M82
APN _____

California Coordinates Source _____ ft. Accuracy ± _____ ft.
CCN _____ ft. CCE _____ ft.
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT
Name HIRO FURUSHIMA
Address 1301 HILKIER PL. Phone 510 886-1666
City LIVERMORE Zip CA 94550

A.

GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling log and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

APPLICANT
Name VALENTIN CONSTANTINESCU - ALFA
ENVIRONMENTAL, INC Fax 510 462 9720
Address P.O. BOX 1630 Phone 510 462 8261
City PLEASANTON Zip CA 94566

B.

WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless lesser depth is specially approved.

TYPE OF PROJECT

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

C.

GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other _____	<input type="checkbox"/>

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	<u>PRESSURE GROUTING</u>	

DRILLER'S LICENSE NO. 657-604987

D.

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

E.

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

F.

WELL DESTRUCTION. See attached.

G.

SPECIAL CONDITIONS

WELL PROJECTS

Drill Hole Diameter	_____ in.	Maximum	
Casing Diameter	<u>2</u> in.	Depth	<u>20</u> ft.
Surface Seal Depth	_____ ft.	Number	<u>3</u>

SEE ATTACHED WELL DETAILS

GEOTECHNICAL PROJECTS

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

ESTIMATED STARTING DATE 3/14/97

ESTIMATED COMPLETION DATE 3/14/97

Approved Wyman Hong Date 12 Mar 97

Wyman Hong

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

APPLICANT'S

SIGNATURE Valentin Constantinescu Date 3/14/97



**CLEARWATER
ENVIRONMENTAL
MANAGEMENT, INC.**

P.O. Box 7420 Fremont, CA 94537-7420
(800) 499-3676 Fax (510) 744-9341
US EPA ID NO. CAR000007013
Hazardous Waste Haulers Lic. # 3515

**Bill of Lading
Invoice # 3017**

Date March 31, 1997

BILLING INFORMATION

JOB SITE

NAME <u>Higo Fukushima</u>			NAME <u>Nursery</u>			CASH CHECK #
ADDRESS <u>1301 Hillier Place</u>			ADDRESS			CUSTOMER EPA ID #
CITY <u>Livermore</u>	STATE <u>CA</u>	ZIP <u>94550</u>	CITY <u>San Leandro</u>	STATE <u>CA</u>	ZIP	PO #
PHONE NO. <u>(510) 886-1666 or (510) 836-2408</u>			PHONE NO. ()			CUSTOMER ID NO:

PRODUCT	PROPER SHIPPING DESCRIPTION	WASTE CODE	MANIFEST NUMBER	QUANTITY	UNITS	PRICE	AMOUNT
Used Oil, Non-RCRA Hazardous Waste Liquid		221			GAL.		
Used Automotive Antifreeze, Non-RCRA Hazardous Waste, Liquid		134			GAL.		
Oily Water, Non RCRA Hazardous Waste Liquid					GAL.		
Non RCRA Hazardous Waste Solid Oil Contaminated Debris					GAL.		
Waste Flammable Liquid, n.o.s. UN1993, PG III					Drums		
Non Hazardous Waste Liquid		N/A		400	GAL.	\$65	\$260.00
Non Hazardous Waste Solid		N/A			GAL.		
Transportation Charges				2	Hours	\$65.00	\$130.00
Washout Charges					Drums		
Drained Used Oil Filters		N/A			Each		
Empty Drums					Each		
Additional Labor							
Other:							

DISPOSAL/RECYCLING FACILITY: DUE AND PAYABLE IN 10 DAYS TOTAL \$390.00

<input type="checkbox"/> Alviso Independent Oil 5002 Archer Street, Alviso, CA CAL000048571 (408) 282-2715	<input checked="" type="checkbox"/> McKittrick Waste Treatment Site 56533 Hwy 58 West, McKittrick, CA CAD980636831 (805) 782-7366	<input type="checkbox"/> Solvent Services, dba Laidlaw 1021 Berryessa Road, San Jose, CA CAD058494310 (408) 451-5000
<input type="checkbox"/> AETS 1125 Hensley Street, Richmond, CA CAT080014079 (510) 233-8001	<input type="checkbox"/> Seaport Environmental 675 Seaport Blvd, Redwood City, CA CAD000032058 (415) 364-8154	<input type="checkbox"/> Commercial Filter Recycling 33210 Western Ave, Union City, CA (510) 487-9277
<input type="checkbox"/> DeMenno Kerdoon 2000 N. Alameda Blvd, Compton, CA CAT080013352 (310) 571-3700	<input type="checkbox"/> Evergreen Oil 6880 Smith Ave, Newark, CA CAD090887418 (510) 795-4400	<input type="checkbox"/>

I hereby certify that all information submitted on this and all attached documents contain true and accurate descriptions of the waste. All relevant information regarding known or suspected hazards associated with the wastes has been disclosed. This further signifies that pursuant to Title 22, Section 66268.7(a)(10), the above listed wastes are certified for land disposal.

DRIVER SIGNATURE _____ GENERATOR SIGNATURE _____

SITE SPECIFIC HEALTH & SAFETY PLAN

ALFA Environmental Remediation Services, Inc. (ALFA) does not guarantee the health or safety of any persons entering this site. Due to the potential hazards of this site and the activity occurring thereon, it is not possible to discover, evaluate, and provide protection for all possible hazards which may be encountered. Strict adherence to the HEALTH & SAFETY guidelines set forth herein will reduce, but not eliminate, the potential for injury at this site. The HEALTH & SAFETY guidelines in this plan were prepared specifically for this site and should not be used on any other site without prior research and evaluation by personnel trained in HEALTH & SAFETY practices. The ALFA Project manager will be responsible for implementing this plan. Both the ALFA Project manager and the Health & Safety Manager have the authority to audit site activities for compliance with this plan and may suspend, modify or halt contractors' work practices whose conduct does not meet ALFA's minimum requirements specified in this plan.

•DATE 3/19/97
•PROJECT NAME Hiro's Nursery
•PROJECT NUMBER 8911
•LOCATION 1620 - 162nd Avenue
San Leandro, CA 94578

ENTRY OBJECTIVES

ALFA and HEW Drilling plan to destroy, under permit, three monitoring wells by pressure grouting. Soil and water samples collected and analyzed at this site showed Not Detected levels. Therefore the site is proposed for closure.

ON-SITE ORGANIZATION AND COORDINATION

The following personnel are designated to carry out the stated job function(s) on site:

Project Manager: Marvin D. Kirkeby, P.E.
Project Geologist: Valentin Constantinescu
Health & Safety Manager: Valentin Constantinescu
Contractor(s): HEW Drilling
Other Personnel Scheduled to be on Site: Alameda County
Inspector, Hiro Fukushima, owner.

All personnel arriving/departing the site will notify the Project Manager or the Site Foreman.

SITE BACKGROUND

- Site Status Active X Inactive
- Site Description
The site is presently a nursery. Tank existed at the site. Soil and groundwater at this site are not contaminated.
- Waste Types Gas Liquid Solid Sludge
- Waste Characteristics
 Corrosive Flammable Inert Reactive
 Volatile Combustible Toxic Other
- Waste Categories
None.

HAZARDS

- Rating High Moderate Low X
- Hazards/Toxic Substances Likely To Be Encountered
None. Observe the necessary precautions while destroying the wells. Wear gloves.
- Information Presently Available of Substance(s) as They Exist on Site
Gasoline compounds were detected in soil samples collected beneath and around the tank upon the tank removal. No soil or groundwater contamination was detected in the samples.

- Area(s) Affected

None.

- Weather Conditions Anticipated

Weather conditions anticipated on site are clear skies and moderate temperatures with moderate swirling winds.

PERSONAL PROTECTION

The level of personal protection designated here should be considered the minimal acceptable level. Project personnel may elect to upgrade the level of protection at their discretion.

- Level of Protection Required A ____ B ____ C ____ D X

Level D Protection includes hard hat, safety glasses, and steel toed boots.

- Personal Protective Equipment

A minimum of Level D, protection will be required on site for all personnel. ALFA recommends persons engaged in handling soil or groundwater of the site wear Tyvek coveralls.

- Rationale

Standard policy requires a minimum of Level D protection to be employed by all personnel on a specific site.

- Equipment

Health and Safety related equipment to be used on site includes:

- Fire Extinguisher

DECONTAMINATION AND DISPOSAL

- **Decontamination Procedures**

- A. Personnel

- Disposable tyveks, gloves and booties should be changed at the discretion of the designated on site Health and Safety Manager. Tyveks will be discarded at the end of each work day.
 - It is recommended that work clothes be separated from other clothes prior to washing.

- B. Equipment

- Sampling equipment and other work gear will be washed thoroughly with soap and water. This should be followed by a thorough rinse with tap water.

- C. Disposal Procedures

- Bag all disposable clothing/equipment etc., and dispose of on site if possible.

GENERAL PROJECT SAFETY REQUIREMENTS

Project activities will be conducted in accordance with the following minimum safety requirements:

- Eating, drinking, and smoking will be restricted to a designated area.
- Gross decontamination and removal of all personal protective equipment will be performed prior to leaving the site.
- Shaking or blowing of potentially contaminated clothing or equipment to remove dust or other materials is not permitted.

- All job site personnel are responsible for taking necessary steps to protect employees from physical hazards, including
 - Falling objects, such as tools or equipment
 - Falls from elevations
 - Tripping over hoses, pipes, tools, or equipment
 - Slipping on wet or oil surfaces
 - Insufficient or faulty protective equipment
 - Insufficient or faulty equipment or tools

- All personnel will be required to wash hands and faces before eating, drinking, or smoking.

- Field operations personnel will be cautioned to inform each other of the non-visual effects of the presence of toxics, such as
 - Headaches
 - Dizziness
 - Nausea
 - Blurred vision
 - Cramps
 - Irritation of eyes, skin, or respiratory tract
 - Changes in complexion or skin discoloration
 - Changes in apparent motor coordination
 - Changes in personality or demeanor
 - Excessive salivation or changes in pupillary response
 - Changes in speech ability or pattern

MEDICAL SURVEILLANCE

Personnel and subcontractors engaged in project activities must be participants in a medical surveillance program and must be cleared by the examining physician(s) to wear respiratory protection devices and protective clothing for working with hazardous materials. The applicable requirements under Title 8, Section 5216, of the California Administrative Code will be observed. The applicable requirements under 29 CFR 1910.120 of the Federal Administrative Code will be observed.

SAFETY AND ORIENTATION MEETING

Field personnel will attend a project-specific training meeting for safety issues and review the project tasks before beginning work. The meeting will be led by the Field Superintendent.

WORK ZONES AND SECURITY MEASURES

The area where the work is performed will be designated as an Exclusion Zone. Only essential personnel will be allowed into an Exclusion Zone. When it is practical and local topography allows, approximately 25 to 75 feet of space surrounding the Exclusion Zone will be designated as a Contamination Reduction Zone.

Cones, wooden barricades, or a suitable alternative will be used to deny the public access to these Contamination Reduction Zones. The public will not be allowed close to the work area under any conditions. If for any reason the safety of a member of the public (E.G., motorist or pedestrian) may be endangered, work will cease until the situation is remedied. Cones and warning signs will be used when necessary to redirect motorists or pedestrians.

EMERGENCY RESPONSE PROCEDURES

In the event of an accident resulting in physical injury, first aid will be administered and the injured worker will be transported to the nearest hospital or emergency medical clinic for emergency treatment. A physician's attention is required regardless of the severity of the injury. In the event of a fire, explosion, or property damage, the closest ALFA office will be immediately notified. If necessary, local fire or response agencies will be called. A map showing the site's location and nearest hospital providing emergency care is attached.

• **EMERGENCY TELEPHONE NUMBERS**

Fire and Police	911
Ambulance	911
Fairmont Hospital	
(see attached map)	(510) 667-7800
ALFA	(510) 462-9763

• **ADDITIONAL CONTINGENCY TELEPHONE NUMBERS**

Poison Control Center	(800) 523-2222
CHEMTREC	(800) 425-9300

NOTE: Only call CHEMTREC in an emergency. CHEMTREC is an acronym for Chemical Transportation Emergency Center, a public service of the Chemical Manufacture's Association. CHEMTREC can usually provide hazard information warnings and guidance when given the identification number or the name of the product and the nature of the problem. CHEMTREC can also contact the appropriate experts.

ALL SITE PERSONNEL HAVE READ AND DISCUSSED THE ABOVE PLAN AND ARE FAMILIAR WITH ITS PROVISION.

Valentin Loumbos 3/19/97 HERSI
Project Manager/Site Safety & Health Officer

Michael Douglas Hew Drilling, 3/19-97
Contractor and Firm Name

JAMIE BROOKS HEW DRILLING 3/19/97
Contractor and Firm Name

Other Site Personnel

Other Site Personnel

Other Site Personnel

Other Site Personnel