

**Geology / Engineering Geology / Environmental Studies**

**HOEXTER CONSULTING**  
DAVID F. HOEXTER, C.E.G./R.E.A.

**734 Torrey Court  
Palo Alto, California 9430  
(415) 494-2505**

February 14, 1993  
E-19-2-064  
HCWorkplans:ABCMustang

Mr. Scott O. Seery, CHMM  
Senior Hazardous Materials Specialist  
Alameda County Department of Environmental Health  
UST Local Oversight Program  
80 Swan Way, Room 200  
Oakland, California 94621

RE: WORK PLAN FOR PRELIM-  
INARY SITE ASSESSMENT  
ABC MUSTANG SITE  
15960 EAST 14TH STREET  
SAN LEANDRO, CALIFORNIA

Dear Mr. Seery:

The purpose of this letter is to briefly summarize the subsurface investigation work plan for the above-referenced site. The plan is based on our review of work accomplished to date, on our discussions with you, and on your letter addressed to Ms. Lorraine M. Berg and Ms. Barbara J. Paxton, dated December 17, 1992.

In summary, one monitoring well will be installed at the site, at a location which in our opinion will provide a representative ground water sample for chemical analysis, and which is located in the approximate regional down-gradient direction from the former underground storage tanks (UST). Details of the investigation are presented in the following sections of this plan.

**LOCATION**

The project site is located at 15,960 East 14th Street, on the northeast side between 159th and 160th Avenues, in San Leandro, California (Figure 1). The property is bordered by East 14th Street on the southwest, by small commercial buildings on the northwest and southeast, and by a residential area to the northeast.

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## BACKGROUND

Two underground fuel tanks were removed by Stokley Construction in March, 1992. Holes were observed in the tanks at the time of their removal, and gasoline was detected in native soils beneath the former tanks and in ground water which subsequently collected within the tank pit. An UST Unauthorized Release (Leak) Report was filed on March 31, 1992. Initially, in informal discussions, and subsequently in a letter dated December 17, 1992, your office requested that a Preliminary Site Assessment (PSA) be conducted.

## SITE HISTORY

The site is currently occupied by an auto collision repair facility, Tom and Sons Body and Fender. An automotive parts shop, ABC Mustang, previously occupied part of the site. The ABC building is currently vacant. Previous businesses at the site included ABC Auto Wreckers.

Two - 250 gallon steel tanks were installed on the site in the late 1940's. These two tanks were used until the mid 1950's. They reportedly were not used since that time. The tanks were used to store leaded gasoline. The tanks were planned for removal because the property is being offered for sale. Due to the length of time since they were last used, they had not been tested for tightness. To our knowledge, there are currently no operating or additional abandoned underground tanks currently on the property.

There are no known estimates of quantity of fuel lost.

## SITE CLOSURE

The following discussion is based primarily on site inspection notes recorded by Mr. Scott Seery, of the Alameda County Department of Environmental Health, and on discussions with Mr. James (Tex) Stokley, the contractor responsible for removal of the tanks. Applicable documents are presented in Appendix A. Site closure was initiated on March 31, 1992. Closure was conducted by Stokley Construction, of Tracy, California, under permit to Alameda County, Department of Environmental Health. Scott Seery of the Alameda County Department of Environmental Health and Ed Ladani of the ECFD (fire department) witnessed the tank excavation.

The precise origin of the tanks is unknown. Upon removal, they were tentatively identified as pressure vessels, although they were subsequently identified to Mr. Stokley as World War II-era buoys. The tanks were constructed of steel. Prior to inerting, the tanks were triple-rinsed with high pressure water and a non-halogenated cleaner. The rinsate was contained and manifested, and transported by Falcon Energy/Evergreen Environmental Services of Ripon, California, for disposal at the Kiesel Company in St. Louis, Missouri. Holes were observed in each of the tanks. The inerted tanks were transported under manifest, and disposed of by Erickson, Inc. of Richmond, California. Soil in the excavation appeared stained, and a soil sample was obtained from below each tank.

On April 14, 1992, Stokley Construction overexcavated the UST pit to dimensions of approximately 16 by 17 by 8-9 feet deep. Water was noted in the pit at a depth of approximately 8.5 feet. Only a slight, if any, odor was noted. The four side walls were sampled, at a depth of approximately 7-8 feet below the ground surface. When the pit bottom was sampled, a strong gasoline odor was noted, and the excavation was deepened

to approximately 10.5 feet. Ground water appeared to well upward into the pit at that time. A sample of water was thus obtained.

Analytical test results of the confirmation testing are discussed in a later section of this work plan.

There were no unusual problems encountered during the tank closure or site excavation. Excavated soil was stockpiled on a vacant portion of the property. The soil, which was stored on and within plastic sheeting, was subsequently transported to The BFI Vasco Road, Livermore, California facility, after aeration and sample analysis.

### INVESTIGATIONS WITHIN SITE VICINITY

There are two reported hazardous materials releases within the near-site vicinity (Figure 1).

A release of petroleum fuels reportedly has occurred at 16035A East 14th Street (corner of Ashland), at the United Auto Center/Quality Used Cars and Trucks site. According to Mr. Scott Seery, a subsurface investigation has not to date been conducted at this site.

Investigations of a fuel release at the Unocal station, 15803 East 14th Street at 159th Avenue, have been conducted by Kaprealian Engineering, Inc. According to Mr. Seery, ground water at this site flows to the northwest, at a gradient of 0.002 ft/ft. Depth to ground water was on the order of 10 to 11-1/2 feet in July, 1992.

A study of ground water flow in the general site vicinity has recently been conducted by Woodward Clyde Consultants (WCC). According to Mr. Seery, ground water was found by WCC to flow in a west to southwest direction. This direction is partially cross-gradient to the local flow observed at the Unocal site.

### SITE DESCRIPTION

The ABC Mustang property is situated at an elevation of approximately 33 feet MSL (Figure 2). The site is located on the East Bay Plain, a gently westward sloping feature underlain by a sequence of alluvial deposits with a maximum thickness of 1,100 feet. Ground water underlying the East Bay Plain flows westward from recharge areas along the eastern fringe of the plain, and locally from the central portion, towards San Francisco Bay (Alameda County Flood Control and Water Conservation District, 1988). The ground surface slopes gently to the west southwest, at an average gradient of one to 250 (vertical to horizontal).

The subject property is situated upon deposits of recent alluvium (Dibblee, 1980). According to Alameda County Flood Control and Water Conservation District (1988), the younger (recent) alluvium is generally from 10 to 50 feet thick, and is mostly unsaturated, with localized perched ground water zones. It thus yields little to wells, and is not a ground water source except locally for generally non-potable domestic use. Ground water in the deeper aquifer of the East Bay Plain is confined, due to the deposition of clay and other fine-grained material over beds of relatively coarse, water-bearing sand and gravel.

The nearest perennial stream is San Lorenzo Creek, approximately 5,000 feet south of the site. Estudillo Creek, which is situated in a box culvert, is located approximately 800 feet to the west. Another drainage channel, which is open, is located approximately 450 feet to

the south. It is likely that additional, buried, stream channels are located between these two drainages.

The site vicinity consists of mixed commercial/residential use.

### EXCAVATION AND SOIL/GROUND WATER SAMPLING RESULTS

Figure 3 indicates the locations of pertinent site features, including the existing buildings and former UST locations. The tank excavation is also indicated.

The initial tank excavation was approximately 10 by 10 by 8 feet deep. The excavation was subsequently extended to include a volume of approximately 16 by 17 by approximately 10.5 feet deep. Water was first observed in the excavation at a depth of 8.5 feet, during an initial phase of over-excavation. When the excavation was deepened to its ultimate depth of 10.5 feet, water was observed entering the excavation at an increased rate.

According to Mr. Seery's field notes, the native soil in the excavation, where unstained by petroleum hydrocarbons, was light tan in color. This material extended to 8-8.5 feet below the ground surface. Underlying this light tan material was a dark brown, organic silty clay. Additional light tan soil was encountered at the total depth excavated, 10.5 feet.

Confirmation samples were obtained by Stokley Construction by driving brass tubes into a representative mass of soil. The sampler was driven into a large sample of soil obtained with the backhoe bucket. Samples were sealed with foil and tape, retained in an iced cooler, and transported under chain of custody protocol to the analytical laboratory.

The excavation and soil/ground water sampling results are presented in Appendix B and are summarized in Table 1. Sample locations are shown on the figure included in Appendix B. Analyses were conducted by Trace Analysis Laboratory, Inc, of Hayward, California. Trace Analysis Laboratory is California EPA/DHS certified to conduct the requested analyses. One thousand, one hundred (1,100) parts per million (ppm) total petroleum hydrocarbons as gasoline (TPH-G) were detected in the initial, south confirmation sample, from under the south tank. The purgeable aromatic compounds benzene, toluene, ethylbenzene, and xylenes (BTEX) were also detected. TPH-G was detected in the northern sample at a concentration of 5.8 ppm. Subsequent confirmation testing, following additional excavation, did not detect TPH-G in four samples, from a depth of approximately 7 to 8 feet. Very low levels of ethylbenzene and xylenes were detected in two of the four samples. A sample was not obtained from the excavation bottom, although it had been deepened due to the observation of petroleum hydrocarbon odors in the bottom soils.

A grab sample of ground water was obtained from the open excavation on April 14, 1992. TPH-G was detected at a concentration of 10 ppm.

Contaminated ground water was not produced during the excavation. Contaminated soil was stored on site. Approximately 126 yards of soil were produced. The soil was aerated on site, and sampled on July 24 and August 14, 1992. The test results are included in Appendix C. The soil was then shipped to the BFI Vasco site, as described above.

The excavation has been backfilled with clean, imported soils.

Underground utilities were located by Underground Service Alert (USA) prior to removal of the tanks. They will be located a second time prior to initiation of the field investigation.

Approximate utility locations are shown on Figure 3. In our opinion, based on the depth of ground water, probable relatively shallower depth of buried utilities, and near absence of soil contamination in the adjacent 7-8 foot confirmation samples, it is unlikely that utilities have provided a pathway for contaminant migration.

### SOIL CONTAMINATION DETERMINATION

In our opinion, the extent of lateral of soil contamination has been adequately addressed through confirmation testing of the trench side walls. It is possible that some residual soil contamination may be present at the zone of capillary fringe, as suggested in Mr. Scott Seery's field notes. Soil borings for the express purpose of determining extent of soil contamination are not planned. Soil samples for examination and analysis will be obtained from the proposed monitoring well, which will be located in native materials beyond the tank excavation. A description of the proposed soil sampling and analysis is included in the following section on ground water contamination determination.

### GROUND WATER CONTAMINATION DETERMINATION

#### Monitoring Well Rationale

One monitoring well is proposed for installation. The well is to be located as shown on Figure 3, in the approximate regional down gradient ground water flow direction. This direction is based on data from the nearby Unocal site, although it is at an approximately 45 degree variance from the direction reportedly delineated in the Woodward Clyde study. A monitoring well located to the southwest would be located within the sidewalk or traffic lanes of East 14th Street. This location would not be practical from a safety viewpoint, and in our opinion would not be required unless further investigation of the site is warranted. In our opinion the proposed well will provide a reasonably representative ground water sample.

The observed (April, 1992) depth to ground water at the site was approximately eight to ten feet in the excavation pit. Stabilized levels of 10 to 11-1/2 feet were recorded at the nearby Unocal site monitoring wells. We thus anticipate completing the proposed well at a depth of approximately 25 feet below grade. We anticipate screening the well from 25 to 5 feet below grade. Although the screen length of 20 feet is relatively long, it would allow for possible declines in water depth, precluding a dry well, and it would allow for potential rise in ground water level to five feet below grade. Thus, if ground water levels rise, it will still be possible to observe the monitoring well for floating product.

No characterization of site-specific hydrogeologic parameters will be performed.

#### Exploratory Boring Drilling and Sampling

David F. Hoexter, CEG, will be present during drilling to assist in obtaining relatively undisturbed samples of the subsurface materials, to maintain a log of borings, and to make observations of the site conditions. Drilling will be performed utilizing a truck-mounted drill rig equipped with eight-inch diameter hollow stem augers. A site safety plan is included with this work plan as Appendix D.

Soil samples will be obtained at minimum five foot intervals, or at significant lithologic changes, as deemed appropriate by the field geologist or engineer. Samples will be obtained with a 2- or 2-1/2 inch ID Modified California type sampler lined with brass or

stainless steel tubes. The samples will be driven with a 140 pound hammer falling 30 inches. The sampler and tubes will be appropriately cleaned with tri-sodium phosphate (TSP) solution, and triple-rinsed with distilled water.

Upon retrieval, the samples will be contained with a plastic cap over teflon liners, and taped at each end. The samples will be stored in a cooled ice chest, and transported to the analytical laboratory under chain of custody procedures. One sample, from above the water level at the capillary fringe (vadose) zone, will be chemically analyzed.

Soils will be visually classified in accordance with the Unified Soil Classification System. The work will be supervised by the undersigned registered geologist/certified engineering geologist. Boring logs, indicating applicable subsurface information, such as soil lithologies, depth to ground water, sample locations, and other pertinent information, will be developed in the field, and will be included in the subsequent reporting.

### Monitoring Well Installation

The monitoring well will be constructed of two-inch flush threaded PVC schedule-40 pipe. The well screen will consist of 20 feet of 0.01 or 0.02 inch schedule-40 flush threaded PVC. The screened interval will be completed approximately five feet above and 15 feet below the existing water level, thus from approximately five to 25 feet below grade. An appropriately graded sand will be used as filter media around the screened interval. The screen slot size and sand will be selected in the field, based on visual observation of the soils encountered during drilling. The sand will extend approximately two feet above the top of the well screen. A seal composed of a minimum of one foot of hydrated bentonite pellets will be placed atop the filter media. This well will be completed at a relatively shallow depth; the sand filter will be within three feet of the ground surface. As much care as is possible will be taken, to minimize the potential for surface water infiltration into the well.

The remaining annulus will be back-filled with a cement slurry to the ground surface. A locking well head will be installed, and a water-tight at-grade surface vault will be placed for security. The design of the monitoring well is in general compliance with the State of California Department of Water Resources Bulletin 74-90 Monitoring Well Standards and the Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, revised August, 1990.

A preliminary construction diagram of the proposed monitoring well is attached to this work plan as Appendix E.

### Surveying

There are no plans to survey the well, as site-specific ground water flow data cannot be generated from one well.

### Well Development and Sampling

The well will be developed a minimum of two days following completion, using hand bailing and surging and/or by using a positive displacement pump. Well development methods which employ air-lift or the introduction of air into the well will not be used. The well will be developed until it is relatively free of sediment and turbidity.

The well will be sampled with a teflon bailer a minimum of two days after it is developed. The depth to ground water will be initially measured with an electronic well sounder, and

the bailer will then be used to observe the water interface for sheen or floating product. The well will then be purged a minimum of four volumes, and will be sampled following stabilization of pH, temperature and specific conductivity. If the well is slow to recover while it is being purged, it will be sampled following recovery to 80 percent of its original stabilized level.

#### Decontamination

The augers will be steam-cleaned prior to commencement of the investigation. The soil sampler will be disassembled between sampling attempts, washed in a trisodium phosphate (TSP) solution, rinsed with clean water and then purified water, and reassembled with cleaned sample tubes. This will minimize the potential of spreading contaminants among samples, if any are present.

The well development and sampling equipment will be initially cleaned with a TSP solution, and rinsed with water, and then purified water. Ground water sample bottles will be supplied by the analytical laboratory.

#### DRILLING SPOILS, WELL DEVELOPMENT AND PURGE WATER

Auger cuttings and water produced during the well development and sampling process will be placed within plastic sheeting and/or in labeled drums and retained on-site. The results of chemical analysis of the soil and ground water samples will be used to evaluate the appropriate disposal of these materials. Stokley Construction will be responsible for disposal of auger cuttings and produced ground water.

#### ANALYTICAL TESTING

The samples will be analyzed by a California Environmental Protection Agency/Department of Health Services approved analytical laboratory. The testing will consist of the following analyses, which is based on the site history:

Total petroleum hydrocarbons as gasoline (TPH-G) with benzene, toluene, ethylbenzene, and xylenes (BTEX) distinction: EPA Method 8015 modified/GCFID 5030; 8020.

Lead was not detected in previous grab ground water sample, nor was it detected at levels greater than 9.6 ppm in confirmation soil testing. A detected level of 9.6 ppm is typical of lead concentrations in naturally-occurring soils in the San Francisco Bay area. Thus, further testing for lead is not planned.

One soil and one ground water sample will be analyzed for the above-constituents.

A trip blank water sample will be analyzed by the laboratory for the same constituents as described above.

#### REPORTING

Following completion of the tasks outlined in this sampling plan, a report will be prepared which summarizes the results of the investigation. The report will include soil analytical testing results and a tabular summary of the results; boring logs and a description of the

strata encountered in the investigation; a graphical presentation of the monitoring well completion; a location map; a site plan showing the boring locations; and our conclusions and recommendations, if any.

### SUPPLEMENTAL INVESTIGATIONS AND MONITORING

It is not possible to determine future investigation or monitoring requirements. Recommendations for future activities, if any, will be included in the investigation report.

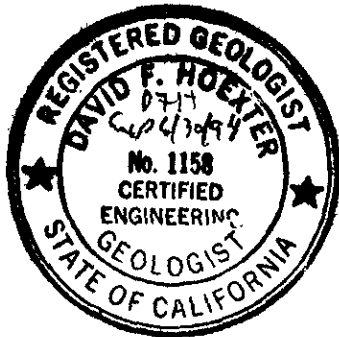
### PROJECT MANAGEMENT

The project will be managed by David F. Hoexter. Mr. Hoexter is a registered geologist and certified engineering geologist, and registered environmental assessor, in the State of California. A qualifications statement for Mr. Hoexter is included in this plan as Appendix F.

### PROJECT SCHEDULE

Hoexter Consulting is prepared to begin this study upon receipt of approval of this work plan and a monitoring well permit from the Alameda County, Zone 7 Water Agency. The field investigation will commence approximately one week following receipt of the approval and well permit. We will notify Mr. Scott Seery, or his designee, of the drilling date once it is established. The monitoring well will be drilled, developed, and sampled during the following week. A two-to-three week laboratory turn-around is anticipated. The report will be completed within another week. Thus, the total elapsed time for completion of the investigation will be five to six weeks following work plan approval and receipt of the well permit.

We trust this work plan will satisfy your needs. Please call if you have any questions.



Very truly yours,

HOEXTER CONSULTING, INC.

A handwritten signature in black ink, appearing to read "D. F. Hoexter".

David F. Hoexter, CEG/REA  
Principal Geologist

#### Attachments:

References

Table 1: Summary of Analytical Test Results - Confirmation Sampling

Figure 1: Location Map

Figure 2: Topographic Map

Figure 3: Site plan



- Appendix A: Site Closure Documents
- Appendix B: Analytical Test Results and Sample Locations - Confirmation Sampling
- Appendix C: Analytical Test Results - Excavated Soil
- Appendix D: Site Safety Plan
- Appendix E: Monitoring Well Construction Diagram
- Appendix F: Qualifications: David F. Hoexter

Copies:

Mr. James R. Stokley, Stokley Construction, P.O. Box 1008, Tracy, California  
95378-1008

REFERENCES

Alameda County Flood Control and Water Conservation District, June, 1988, "Geohydrology and Ground Water Quality Overview of the East Bay Plain Area, Alameda County, California", 205 (j) report prepared under contract to the California Regional Water Quality Control Board, San Francisco Bay Region.

Dibblee, T.W, Jr, 1980, "Preliminary Geologic Map of the Hayward Quadrangle, Alameda and Contra Costa Counties, California", USGS OFR 80-540, Scale 1:24,000.

Unites States Geological Survey, Hayward, 1959 revised 1980 and San Leandro, 1959 revised 1980 Quadrangle 7.5' Topographic Maps, Scale 1:24,000.

TABLE 1

SUMMARY OF ANALYTICAL TEST RESULTS - CONFIRMATION SAMPLING

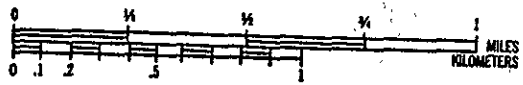
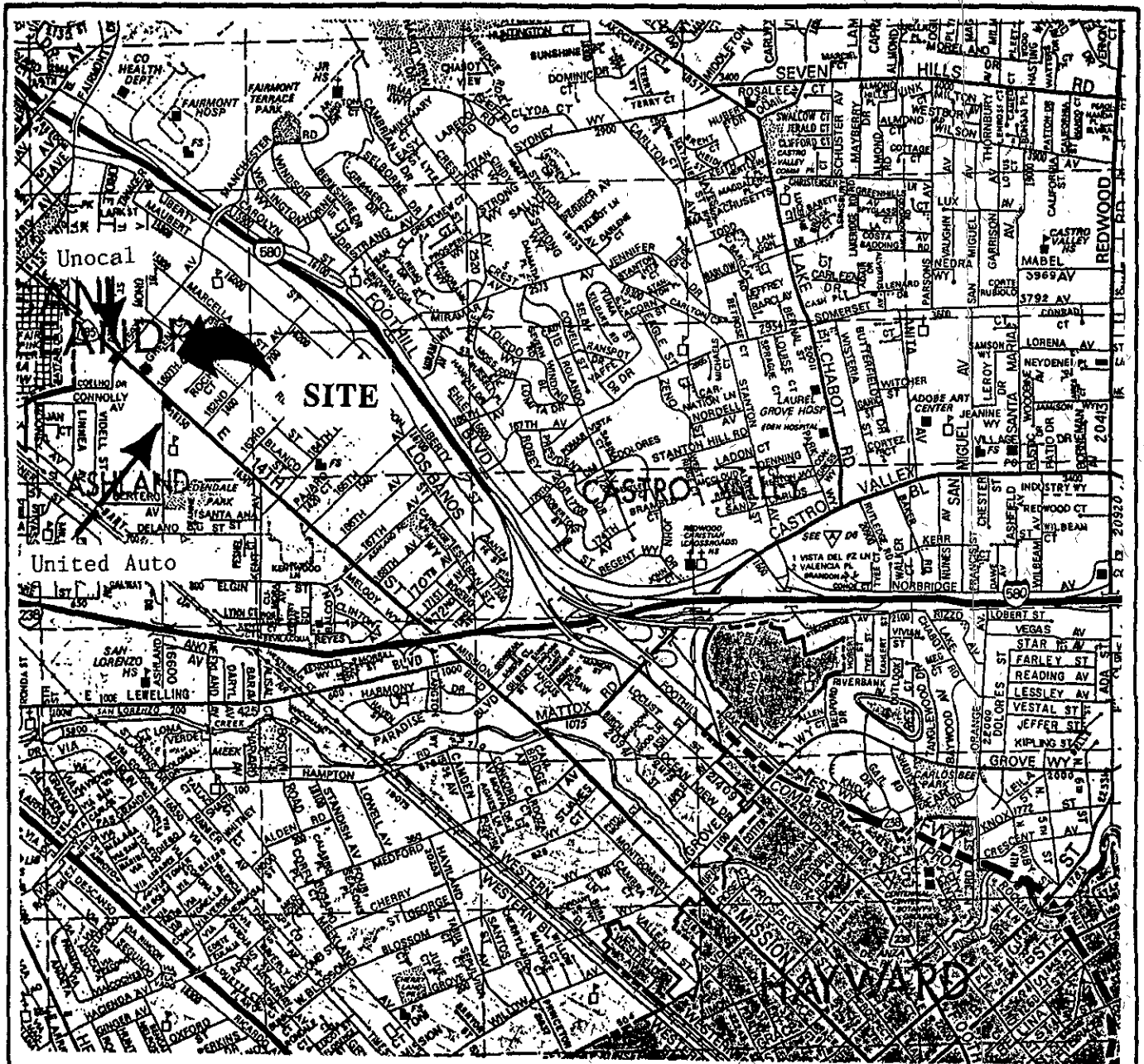
(Results reported in parts per million, mg/kg or l) (1)

<u>Sample ID</u>	<u>TPH-G</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethylben- zene</u>	<u>Xylenes</u>	<u>Lead</u>
#1 South (soil)	1,000	1.2	5.8	7.8	82	9.6
#2 North (soil)	5.8	9.9	ND	0.06	0.24	3.5
2E-1 (soil)	ND	ND	ND	ND	ND	---
2N-2 (soil)	ND	ND	ND	ND	ND	---
2W-3 (soil)	ND	ND	ND	0.0074	0.020	---
2S-4 (soil)	ND	ND	ND	0.013	0.032	---
4/14/92 (water)	10	ND	100	ND	ND	---
4/15/92 (water)	---	---	---	---	---	ND

Notes:

- (1) ND - non-detect
- - not tested for

FIGURES



# ALAMEDA COUNTY

## 1991 Thomas Guide.

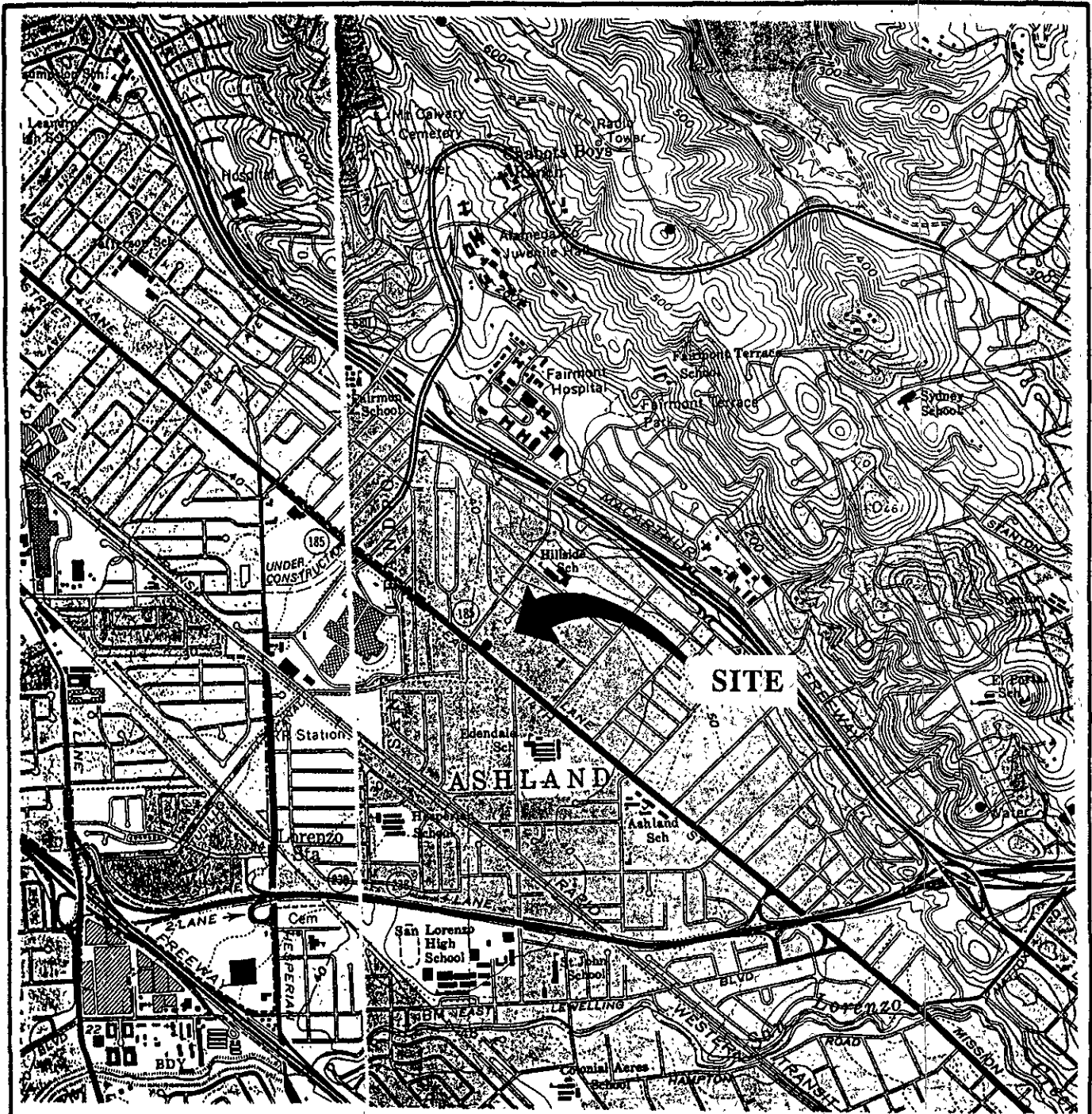


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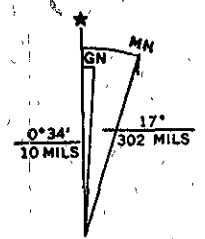
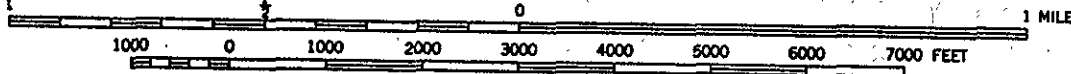
LOCATION MAP

15960 EAST 14 TH STREET  
 SAN LEANDRO, CALIFORNIA

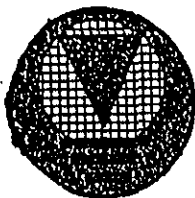
PROJECT NO.	DATE	Figure
E-19-2-064	February, 1993	1



SCALE 1:24 000



Base: USGS Hayward and San Leandro 7.5' Quadrangles, 1959 rev. 1980



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TOPOGRAPHIC MAP

15960 EAST 14 TH STREET  
 SAN LEANDRO, CALIFORNIA

PROJECT NO.

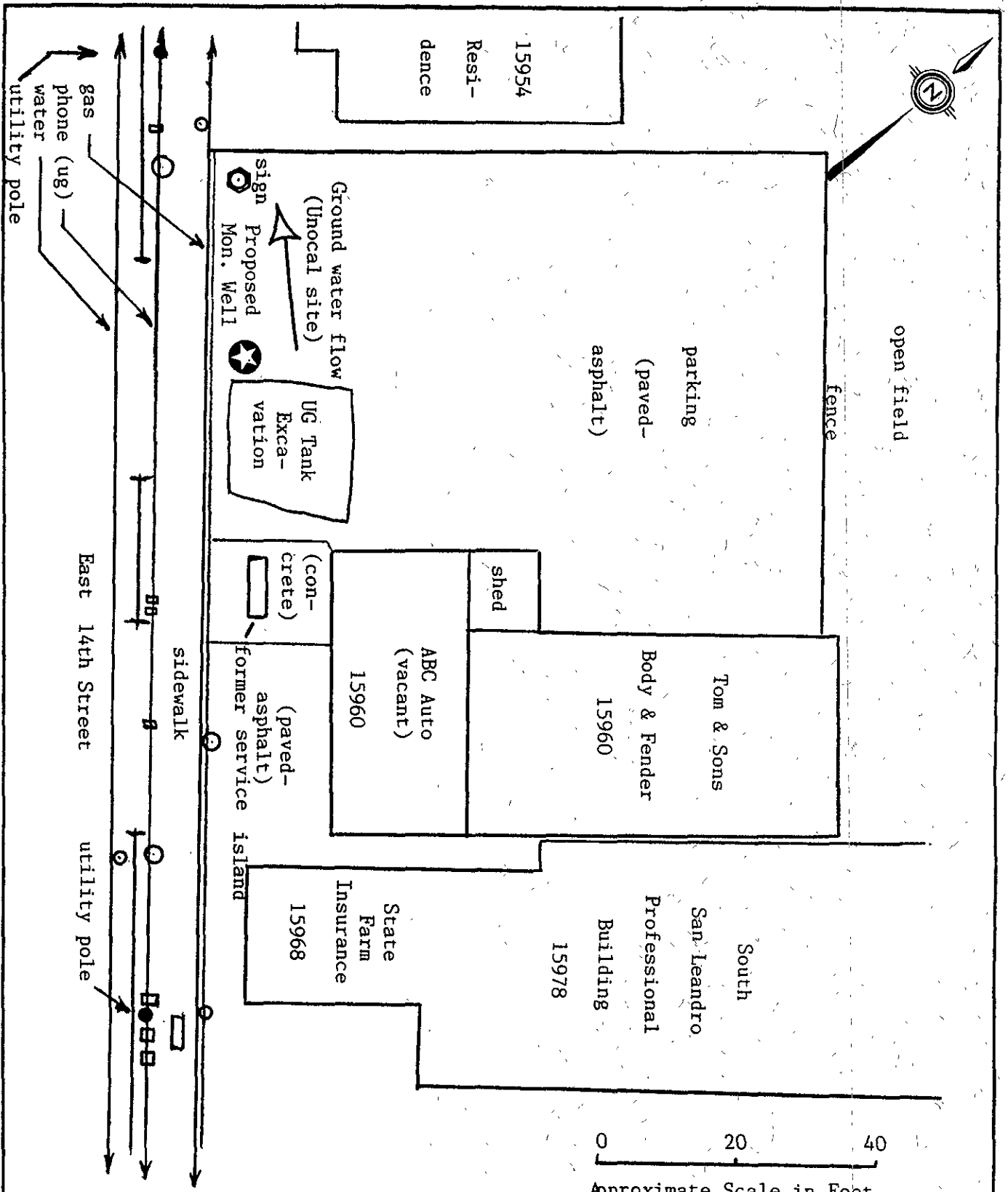
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DATE

February, 1993


Figure

2



Base: Tape survey, D.F. Hoexter, 9/9/93

0 20 40  
Approximate Scale in Feet

 <p><b>HOEXTER CONSULTING</b> Geology Engineering Geology Environmental Studies</p>	SITE PLAN		
	15960 EAST 14 TH STREET SAN LEANDRO, CALIFORNIA		
	PROJECT NO.	DATE	Figure 3
	E-19-2-064	February, 1993	

**APPENDIX A**  
**SITE CLOSURE DOCUMENTS**



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



DIVISION OF HAZARDOUS MATERIALS  
 DEPARTMENT OF ENVIRONMENTAL HEALTH  
 80 Swan Way, Rm. 350, Oakland, CA 94621 • (510) 271-4530

Scott O. Seery, CHMM  
 Senior Hazardous Materials Specialist

ALAMEDA COUNTY HEALTH AGENCY  
 CARE SERVICES

Specialist (printed) 11/05/92

505/192  
 3/18/92

ACCT 1113

Telephone: (510) 271-4327

These plans have been prepared and submitted to the Department of Environmental Health for review and approval. The Department of Environmental Health is responsible for enforcing local health laws. Changes to these plans must be approved by the Department of Environmental Health. The Department of Environmental Health will review the plans and issue a permit to install and operate the tank. The permit will be issued only if the plans comply with all applicable laws. The Department of Environmental Health will conduct an inspection of the tank and piping following removal of the tank and piping. The Department of Environmental Health will also conduct an inspection of the tank and piping following removal of the tank and piping. The Department of Environmental Health will also conduct an inspection of the tank and piping following removal of the tank and piping.

**UNDERGROUND TANK CLOSURE PLAN**

\* Complete according to attached instructions \* \* \*

1. Business Name ABC

Business Owner LAURIE BERG

2. Site Address 15960 E. 14 th ST.

City SAN LEANDRO Zip 94577 Phone \_\_\_\_\_

3. Mailing Address same as above

City \_\_\_\_\_ Zip \_\_\_\_\_ Phone \_\_\_\_\_

4. Land Owner LAURIE BERG

Address 5077 SEAVIEW AVE. City, State CA. Zip 94546

5. Generator name under which tank will be manifested LAURIE BERG

EPA I.D. No. under which tank will be manifested CAC 000674552

6. Contractor STOKLEY CONSTRUCTION  
Address P.O. BOX 1008  
City TRACY, CA. 95378-1008 Phone 209-832-5012  
License Type A&B HAZARD SUBSTANCE CERTIF. 492743

7. Consultant NONE  
Address \_\_\_\_\_  
City \_\_\_\_\_ Phone \_\_\_\_\_

8. Contact Person for Investigation  
Name JAMES (TEX) STOKLEY Title PRES.  
Phone 209-332-5012

9. Number of tanks being closed under this plan TWO  
Length of piping being removed under this plan 5 to 10 feet  
Total number of tanks at facility TWO

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

\*\* Underground tanks are hazardous waste and must be handled \*\*  
as hazardous waste

a) Product/Residual Sludge/Rinsate Transporter  
Name FALCON ENERGY EPA I.D. No. cad 982526857  
Hauler License No. 2463 License Exp. Date 6-30-92  
Address P.O. BOX 1257  
City STOCKTON, State CA. Zip 95201

b) Product/Residual Sludge/Rinsate Disposal Site  
Name KIESEL COMPANY EPA I.D. No. epa mot 300011160  
Address 4801 FLYER AVE. DNR RESOUSE RECOVER  
City ST. LOUIS State MO. Zip 63116

c) Tank and Piping Transporter

Name FALCON ENERGY EPA I.D. No. cad 982526857  
Hauler License No. 2463 License Exp. Date 6-30-92  
Address P.O. BOX 1257  
City STOCKTON, State CA. Zip 95201

d) Tank and Piping Disposal Site

Name ERIKERSON INC. EPA I.D. No. cad 009466392  
Address 255 PARR BLVD.  
City EMOND State CA. Zip 94801

11. Experienced Sample Collector

Name JAMES STOKLEY  
Company STOKLEY CONSTRUCTION  
Address P.O. BOX 1008  
City TRACY State CA. Zip 95378-1008 Phone 209-832-5012

12. Laboratory

Name TRACE ANALYSIS LABORATORY, INC.  
Address 3423 INVESTMENT BLVD.  
City HAYWARD State CA. Zip 94545  
State Certification No. 1199

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

If yes, describe. UNKNOWN

14. Describe methods to be used for rendering tank inert

TRIPLE RINSE AND DRY ICE

15#/ 1000

OR PER LOCAL FD REQUIREMENTS

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, ground-water, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
250 gallon	installed late 40's stored gas till mid 50's	soil and water if encountered	2 ft. below soil and back-fill interface

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated)	Sampling Plan 1/20 CUBIC YARD FOR REUSE

Excavated soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
TPHG BTEX TOTAL LEAD	DHS METHOD TPE A3 GASOLINE 5030 EPA METHOD 8020 AA OR ICAP	GCFID II	1.0 PPM 0.005 PPM

Submit Site Health and Safety Plan (See Instructions)

Submit Worker's Compensation Certificate cop.

Name of Insurer STATE FUND

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

21. Report any leaks or contamination to this office within 5 days of discovery. The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions.

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 Safety and Health Administration) requirements concerning personnel health and safety. I understand that the health 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.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor

Name (please type) JAMES STOKLEY STOKLEY CONSTRUCTION

Signature *James Stokley*

Date 2-27-92

Signature of Site Owner or Operator

Name (please type) LAURIE BERG

Signature *L. Berg*

Date 2-27-92

SITE HEALTH AND SAFETY PLAN

FOR

15960 EAST 14th STREET

SAN LEANDRO, CA.

PROJECT: TANK REMOVAL

STORLEY CONSTRUCTION  
P.O. BOX 1008  
TRACY, CA. 95378-1008  
GENERAL ENGINEERING LIC. A 492743  
GENERAL BUILDING LIC. B 492743  
HAZARDS SUBSTANCE CERTIFICATION  
PHO 209-832-5012  
FAX 209-832-5150

FEB. 26, 1992

HEALTH AND SAFETY OFFICER:

JAMES (TEX) STORLEY

HEALTH AND SAFETY OFFICER RESPONSIBILITIES WILL BE TO INSURE THAT ALL PERSONAL ON SITE HAVE BEEN TRAINED IN 29 CFR 1910.120. ALSO HE WILL BE REQUIRED TO ENFORCE ALL OSHA RULES.

TASK A: BREAK PAVING OVER TANKS

SAFETY EQUIPMENT: HARD HATS, STEEL TOED BOOTS, EAR PROTECTION,  
GOGGLES, AND FIRE EX.

POTENTIAL HAZARDS: FIRE AND TRIPPING OVER DEBRIS

TASK B: EXPOSE PIPING AND TANKS.

SAFETY EQUIPMENT: SAME AS TASK A

POTENTIAL HAZARDS: FIRE AND MOVING EQUIPMENT, EXPOSURE TO GASLINE VAPORS

TASK C: FLUSH PIPING AND WASH TANK

SAFETY EQUIPMENT: SAME AS TASK A PLUS RUBBER GLOVES, AVAILABLE AND  
APPROPRIATE AIR  
POTENTIAL HAZARDS: FALLING AND FLY WATER SPRAY, PURIFYING RESPIRATORS

TASK D: PULL TANKS AND LOAD ON TRUCK

SAFETY EQUIPMENT: SAME AS TASK A

POTENTIAL HAZARDS: MOVING EQUIPMENT AND FALLING IN EXCAVATION

TASK E: COVER STOCK PILED SOIL AND FENCE AROUND EXCAVATION

SAFETY EQUIPMENT : SAME AS TASK A

POTENTIAL HAZARDS: FALLING



BRIEFING TO BE HELD DAILY WILL IDENTIFICATION OF ALL POTENTIAL HAZARDS AND PRECAUTIONS TO TAKE.

OUR MONITORING EQUIPMENT IS A GAS TECH MODEL 1314 WITH INSTRUCTION MANUAL.

IN THE EVENT THAT THE LEL LEVEL EXCEEDS 15% ALL WORK WILL BE STOPPED UNTIL THE LEL IS BROUGHT BACK TO A SAFE LEVEL. ~~EQUIPMENT FOR MONITORING AMBIENT AIR MUST ALSO BE AVAILABLE~~

DECONTAMINATION PROCEDURES WILL BE CONFINED WITHIN A 10 FEET RADIUS OF TANK EXCAVATION.

THE TANK AND STOCK PILED AREAS WILL BE BARRICADED. AS WELL AS THE EXCAVATION WILL BE FENCED AND BARRICADED.

SPILL CONTAINMENT AND EMERGENCY/CONTINGENCY PLAN

IN THE EVENT OF A SPILL A CONTAINMENT WOULD BE PLACED AROUND THE SPILL UNTIL A VACUUM TRUCK COULD REMOVE THE SPILL.

EM. # FIRE 911

HAZARDOUS MATERIALS DIVISION-ALAMEDA HEALTH

510-271-1500

HUMANA HOSPITAL

13855 EAST 14TH STREET, 510-357-6500

ALL EMPLOYEES WILL SIGN THE FOLLOWING DAILY:

I HAVE READ THE HEALTH AND SAFETY PLAN AND I ALSO HAVE HAD TRAINING IN 29 CFR 1919.120.

X \_\_\_\_\_  
X \_\_\_\_\_

AT YOUR SERVICE,  
*James (Tex) Stanley*  
JAMES (TEX) STANLEY

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

91738192

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. CA1D101010167145152	Manifest Document No. 010101013	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address LAURIE BERG 15060 EAST 14TH STREET SANLEANDRO, CA 94577			A. State Manifest Document Number <b>91738192</b>			
4. Generator's Phone ( )			B. State Generator's ID			
5. Transporter 1 Company Name FALCON ENERGY ASSOCIATES		6. US EPA ID Number CA1D101010161218181517		C. State Transporter's ID CA 280355		
7. Transporter 2 Company Name EVERGREEN ENVIRONMENTAL SERVICES		8. US EPA ID Number CA1D101010161218181517		D. Transporter's Phone (209) 463-7100		
9. Designated Facility Name and Site Address PRC REFINERY SERVICES 13331 HWY 33 LATTERSON, CA 95363		10. US EPA ID Number CA1D101010161218181517		E. State Transporter's ID 209419		
				F. Transporter's Phone 903-877-3284		
				G. State Facility's ID CA1D101010161218181517		
				H. Facility's Phone 724-4444		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						
a. <input checked="" type="checkbox"/> NON RCRA HAZARDOUS WASTE LIQUID RINSEATE		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	1. Waste Number State: 223 EPA/Other: NON RCRA
b.						State
c.						EPA/Other
d.						State
						EPA/Other
J. Additional Descriptions for Materials Listed Above WASTE FUEL CONTAMINATED WITH WATER				K. Handling Codes for Wastes Listed Above		
				a.	b.	
				c.	d.	
15. Special Handling Instructions and Additional Information						
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 Laurie Berg		Signature <i>Laurie Berg</i>		Month Day Year 03 13 19 12		
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Kenya D...		Signature <i>Kenya D...</i>		Month Day Year 03 13 19 12		
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Joseph R. Lim...		Signature <i>Joseph R. Lim...</i>		Month Day Year 05 12 19 12		
19. Discrepancy Indication Space #9 EVERGREEN ENVIRONMENTAL SERVICES 777 LOCUST AVE, RIFON, CALIF. 95366 BOX I-A-221						
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name Joseph R. Lim...		Signature <i>Joseph R. Lim...</i>		Month Day Year 05 17 19 12		

DO NOT WRITE BELOW THIS LINE.

GENERATOR  
 TRANSPORTER  
 FACILITY

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. C A D 0 0 0 0 6 7 4 5 5 2		Manifest Document No 0 1 0 1 0 1 0 1 1		2. Page 1 of _____		Information in the shaded areas is not required by Federal law	
3. Generator's Name and Mailing Address <b>Laurie Berg 15960 East 14th Street San Leandro, CA 94577</b>				A. State Manifest Document Number <b>91738193</b>		B. State Generator's ID			
4. Generator's Phone ( )		6. US EPA ID Number C A D 9 8 2 5 2 6 8 5 7		C. State Transporter's ID CA 200358		D. Transporter's Phone (209) 463-7108			
5. Transporter 1 Company Name <b>FALCON ENERGY ASSOCIATES</b>		7. Transporter 2 Company Name		E. State Transporter's ID		F. Transporter's Phone			
9. Designated Facility Name and Site Address <b>ERICKSON, INC. 255 PARR BLVD. RICHMOND, CA 94801</b>		10. US EPA ID Number C A D 0 0 9 4 6 6 3 9 2		G. State Facility's ID <b>CA 209466392</b>		H. Facility's Phone (415) 235-1393			
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers		13. Total Quantity		14. Unit Wt/Vol	
a. HAZADROUS WASTE SOLID 250 GAL. CAPACITY CALIFORNIA ONLY REGULATED				No. Type		Quantity		1. Waste Number	
				0 0 1 T P		1 1 8 0 P		State 512 EPA/Other NON RCRA	
b. HAZADROUS WASTE SOLID 250 GAL. CAPACITY CALIFORNIA ONLY REGULATED				0 0 1 T P		1 8 0 P		State 512 EPA/Other NON RCRA	
c.								State EPA/Other	
d.								State EPA/Other	
J. Additional Descriptions for Materials Listed Above <b>EMPTY STORAGE TANK, #8323 &amp; 8324 EACH IGED WITH 20 LBS OF DRY ICE PER 1,000 GALLONS OF CAPACITY</b>				K. Handling Codes for Wastes Listed Above					
				a. 01 <b>12</b>		b. 01 <b>12</b>			
15. Special Handling Instructions and Additional Information <b>KEEP AWAY FROM SOURCES OF IGNITION, WEAR HARD HAT, SAFETY SHOES AND GLOVES, WHEN WORKING WITH U.S.T.'S</b>									
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 <b>LORRAINE BERG</b>			Signature <i>Lorraine Berg</i>			Month Day Year <b>3 13 19 9 2</b>			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <b>Kenny Dutton</b>			Signature <i>Kenny Dutton</i>			Month Day Year <b>0 3 13 19 9 2</b>			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature			Month Day Year			
19. Discrepancy Indication Space <b>1) No phone 11.A; 11.B.) S/B - Waste Empty Storage tank 2) page 1 of 1 NON-RCRA Hazardous waste - Solid</b>									
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name <b>DONALD H. ROSSON</b>			Signature <i>Donald H. Rossion</i>			Month Day Year <b>0 3 13 19 9 2</b>			

DO NOT WRITE BELOW THIS LINE.

31712

white - env. health  
yellow - facility  
pink - files

# ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200  
Oakland, CA 94621  
(415) 271-4320

## Hazardous Materials Inspection Form

II, III

### II.A BUSINESS PLANS (Title 19)

- 1. Immediate Reporting 2703
- 2. Bus. Plan Stds. 25503(b)
- 3. RR Cars > 30 days 25503.7
- 4. Inventory Information 25504(a)
- 5. Inventory Complete 2730
- 6. Emergency Response 25504(b)
- 7. Training 25504(c)
- 8. Deficiency 25505(a)
- 9. Modification 25505(b)

### II.B ACUTELY HAZ. MATLS

- 10. Registration Form Filed 25533(a)
- 11. Form Complete 25533(b)
- 12. RMPP Contents 25534(c)
- 13. Implement Sch. Req'd? (Y/N)
- 14. OffSite Conseq. Assess. 25524(c)
- 15. Probable Risk Assessment 25534(d)
- 16. Persons Responsible 25534(g)
- 17. Certification 25534(f)
- 18. Exemption Request? (Y/N) 25536(b)
- 19. Trade Secret Requested? 25538

### III. UNDERGROUND TANKS (Title 23)

- |   |  |
|---|--|
| General   | <input type="checkbox"/> 1. Permit Application 25284 (H&S)                                 |
|   | <input type="checkbox"/> 2. Pipeline Leak Detection 25292 (H&S)                            |
|   | <input type="checkbox"/> 3. Records Maintenance 2712                                       |
|   | <input type="checkbox"/> 4. Release Report 2651  |
|   | <input type="checkbox"/> 5. Closure Plans 2670   |
| Monitoring for Existing Tanks                                 | 6. Method  |
|   | 1) Monthly Test  |
|   | 2) Daily Vadose<br>Semi-annual groundwater<br>One time soil                                |
|   | 3) Daily Vadose<br>One time soil<br>Annual tank test                                       |
|   | 4) Monthly Groundwater<br>One time soil  |
|   | 5) Daily Inventory<br>Annual tank testing<br>Cont pipe leak det<br>Vadose/groundwater mon. |
|   | 6) Daily Inventory<br>Annual tank testing<br>Cont pipe leak det                            |
|   | 7) Weekly Tank Gauge<br>Annual tank testing  |
|   | 8) Annual Tank Testing<br>Daily Inventory  |
|   | 9) Other _____   |
| New Tanks   | <input type="checkbox"/> 7. Precls Tank Test 2643<br>Date: _____                           |
|   | <input type="checkbox"/> 8. Inventory Rec. 2644  |
|   | <input type="checkbox"/> 9. Soil Testing 2646  |
|   | <input type="checkbox"/> 10. Ground Water. 2647  |
| <input type="checkbox"/> 11. Monitor Plan 2632                |  |
| <input type="checkbox"/> 12. Access. Secure 2634              |  |
| <input type="checkbox"/> 13. Plans Submit 2711<br>Date: _____ |  |
| <input type="checkbox"/> 14. As Built 2635<br>Date: _____     |  |

Site ID # \_\_\_\_\_ Site Name ABC Today's Date 3/31/92

Site Address 15960 E. 14th St  
City S. Leandro Zip 94578 Phone \_\_\_\_\_

MAX AMT stored > 500 lbs. 55 gal., 200 cft.?

#### Inspection Categories:

- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

**Comments:** 1:30 -  
 On-site to witness closure of two (2), ~250 gallon former fuel tanks. Ed Ladani of ECFD was on scene to ensure tank inertness prior to removals. Tank appear to have had some sort of pressure vessel, according to the contractor. The ends are "bulging", and seams are apparent. The (north) tank had a hole on one end towards the top of the tank (photo), and appears to be due to corrosion. The (south) tank also had a large (~2x6 cm) hole (photo). Soil in excavation is obviously slumped, and a dull odor of old product is evident. As slant was pushed aside by backhoe, obviously impacted soil was uncovered, as evidenced by gunmetal gray coloration in contrast with light tan native material. A sample was collected from below each tank. No over excavation was performed.

II, III

Contact: James Strickley  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_

Inspector: \_\_\_\_\_  
Signature: \_\_\_\_\_

3/31/92

Stokley Construction  
P.O. Box 1008  
Tracy, Ca. 95378  
General Engineering Lic A 492743  
General Building Lic B 492743  
209-832-5012 Fax 209-832-5150

RINSE CERTIFICATE

STOKLEY CONSTRUCTION HEREBY CERTIFIES THAT ONE (1)  
UNDERGROUND STORAGE TANK APPROXIMATELY 250 GALLONS  
LAST CONTAINING gas AT

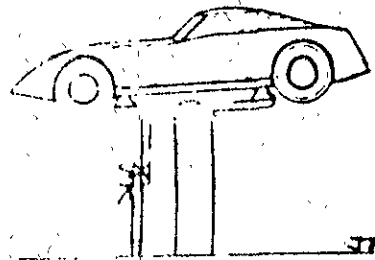
15960 E. 14th St  
San Leandro, Ca

WAS TRIPLE RINSED ON 3-31-92.

THE TANK WAS RINSED USING HIGH PRESSURE WATER AND A NON-HALOGENATED  
CLEANER. AFTER RINSING, THE RINSEATE WAS PROPERLY  
CONTAINED AND MANIFESTED FOR TRANSPORT TO A PROPERLY LICENSED RESOURCE.  
RECOVERY FACILITY FOR THERMAL DESTRUCTION. I HAVE PERSONAL KNOWLEDGE  
THAT THE TANKS WERE RINSED.

ATTEST: James (Tex) Stokley

JAMES (TEX) STOKLEY  
PRESIDENT/OWNER  
GENERAL ENGINEERING LIC A 492743  
GENERAL BUILDING LIC B 492743  
HAZARDOUS SUBSTANCES REMOVAL AND  
REMEDIAL ACTION CERTIFICATED



3/31/92

Stokley Construction  
P.O. Box 1008  
Tracy, Ca. 95378  
General Engineering Lic A 492743  
General Building Lic B 492743  
209-832-5012 Fax 209-832-5150

RINSE CERTIFICATE

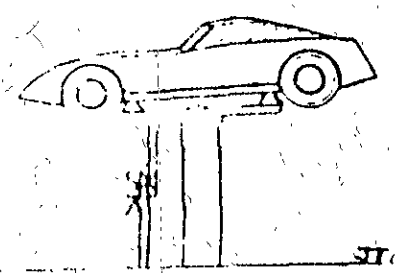
STOKLEY CONSTRUCTION HEREBY CERTIFIES THAT ONE (1)  
UNDERGROUND STORAGE TANK, APPROXIMATELY 250 GALLONS  
LAST CONTAINING gas AT 15960 E. 14th St  
San Leandro, Ca

WAS TRIPLE RINSED ON 3-31-92.

THE TANK WAS RINSED USING HIGH PRESSURE WATER AND A NON-HALOGENATED  
CLEANER. AFTER RINSING, THE RINSEATE WAS PROPERLY  
CONTAINED AND MANIFESTED FOR TRANSPORT TO A PROPERLY LICENSED RESOURCE.  
RECOVERY FACILITY FOR THERMAL DESTRUCTION. I HAVE PERSONAL KNOWLEDGE  
THAT THE TANKS WERE RINSED.

ATTEST: James (Tex) Stokley

JAMES (TEX) STOKLEY  
PRESIDENT/OWNER  
GENERAL ENGINEERING LIC A 492743  
GENERAL BUILDING LIC B 492743  
HAZARDOUS SUBSTANCES REMOVAL AND  
REMEDIAL ACTION CERTIFICATED



# CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

CUSTOMER	ENG
FALCON	
JOB NO.	78164

Erickson, Inc. 8323

4/1/92

FOR: \_\_\_\_\_ TANK NO. \_\_\_\_\_

Richmond 04/01/92 13:33:02

LOCATION: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

Visual Gastech/1314 SMPN LG

TEST METHOD \_\_\_\_\_ LAST PRODUCT \_\_\_\_\_

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 250 Gallon Tank CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9%  
LOWER EXPLOSIVE LIMIT LESS THAN 0.1%

"ERICKSON INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY."

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

## STANDARD SAFETY DESIGNATION

**SAFE FOR MEN:** Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissible concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

**SAFE FOR FIRE:** Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

REPRESENTATIVE Kidder TITLE \_\_\_\_\_ INSPECTOR DR

FOR: Erickson, Inc. TANK NO. 8324

4/1/92

LOCATION: Richmond DATE: 04/01/92 TIME: 09:59:02

TEST METHOD Visual Gastech/1314 SMPN LAST PRODUCT LG

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 250 Gallon Tank CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9%  
LOWER EXPLOSIVE LIMIT LESS THAN 0.1%

"ERICKSON INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY."

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

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**SAFE FOR FIRE:** Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

REPRESENTATIVE

*K. Hughes*

TITLE INSPECTOR

*DR*

*11/1/92*



white -env.health  
yellow -facility  
pink -files

# ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

## Hazardous Materials Inspection Form

II, III

Site ID # \_\_\_\_\_ Site Name ABC Auto Repair Today's Date 4/1/92

Site Address 15960 E. 14th Street

City San Leandro Zip 94 Phone \_\_\_\_\_

MAX AMT stored > 500 lbs., 55 gal., 200 cft.?

### Inspection Categories:

- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

### Comments:

On site to witness sampling of UST pit following overexcavation. Upon my arrival, the pit had been enlarged to approximately 15.5 x 16.5 x 8.0-2.5 feet. Apparent G-W was noted at the 8.5 foot depth. Most of the apparently contaminated soil, identified by its gray coloration, was removed revealing a tan native material to ~ the 8-8.5 foot depth, underlain by a dark brown, organic silty clay horizon. The latent gray colored material did not seem to exhibit strong, if any, product odor.

Samples from four sidewalls, floor, and G.W. were collected for analysis.

Soil was stockpiled on site pending analysis.

Note: The hole was deepened to ~10.5 feet when it was discovered that during an attempt at pit bottom sampling, strong gasoline odors remained. As the pit was deepened, more apparent G-W

### II.A BUSINESS PLANS (Title 19)

- 1. Immediate Reporting 2703
- 2. Bus. Plan Stds. 25503(b)
- 3. RR Cars > 30 days 25503.7
- 4. Inventory Information 25504(a)
- 5. Inventory Complete 2730
- 6. Emergency Response 25504(b)
- 7. Training 25504(c)
- 8. Deficiency 25505(a)
- 9. Modification 25505(b)

### II.B ACUTELY HAZ. MATLS

- 10. Registration Form Filed 25533(a)
- 11. Form Complete 25533(b)
- 12. RMPP Contents 25534(c)
- 13. Implement Sch. Req'd? (Y/N)
- 14. OffSite Conseq. Assess. 25524(c)
- 15. Probable Risk Assessment 25534(d)
- 16. Persons Responsible 25534(g)
- 17. Certification 25534(f)
- 18. Exemption Request? (Y/N) 25536(b)
- 19. Trade Secret Requested? 25538

### III. UNDERGROUND TANKS (Title 23)

- General
- 1. Permit Application 25284 (H&S)
  - 2. Pipeline Leak Detection 25292 (H&S)
  - 3. Records Maintenance 2712
  - 4. Release Report 2651
  - 5. Closure Plans 2670

- Monitoring for Existing Tanks
- 6. Method
    - 1) Monthly Test
    - 2) Daily Vadose Semi-annual groundwater One time soil
    - 3) Daily Vadose One time soil Annual tank test
    - 4) Monthly Groundwater One time soil
    - 5) Daily Inventory Annual tank testing Cont pipe leak det Vadose/groundwater mon.
    - 6) Daily Inventory Annual tank testing Cont pipe leak det
    - 7) Weekly Tank Gauge Annual tank testing
    - 8) Annual Tank Testing Daily Inventory
    - 9) Other \_\_\_\_\_

- 7. Precs Tank Test Date: 2643
- 8. Inventory Rec. 2644
- 9. Soil Testing, 2646
- 10. Ground Water, 2647

- New Tanks
- 11. Monitor Plan 2632
  - 12. Access, Secure 2634
  - 13. Plans Submt Date: 2711
  - 14. As Built Date: 2635

Contact: Tex Starkley  
 Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_

Inspector: \_\_\_\_\_  
 Signature: \_\_\_\_\_

II, III

white -env.health  
 yellow -facility  
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200  
 Oakland, CA 94621  
 (415) 271-4320

Hazardous Materials Inspection Form

II, III

Site ID # \_\_\_\_\_ Site Name ABC Auto Repair Today's Date 4/1/92

Site Address 15960 E. 14th

City S. Leandro Zip 94 Phone \_\_\_\_\_

MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

Callf. Administration Code (CAC) or the Health & Safety Code (HS&C)

II.A BUSINESS PLANS (Title 19)

- 1. Immediate Reporting 2703
- 2. Bus. Plan Stds. 25503(b)
- 3. RRI Cars > 30 days 25503.7
- 4. Inventory Information 25504(a)
- 5. Inventory Complete 2730
- 6. Emergency Response 25504(b)
- 7. Training 25504(c)
- 8. Deficiency 25505(a)
- 9. Modification 25505(b)

II.B ACUTELY HAZ. MATLS

- 10. Registration Form Filed 25533(a)
- 11. Form Complete 25533(b)
- 12. RMPP Contents 25534(c)
- 13. Implement Sch. Req'd? (Y/N)
- 14. OnSite Conseq. Assess. 25524(c)
- 15. Probable Risk Assessment 25534(d)
- 16. Persons Responsible 25534(g)
- 17. Certification 25534(f)
- 18. Exemption Request? (Y/N) 25536(b)
- 19. Trade Secret Requested? 25538

III. UNDERGROUND TANKS (Title 23)

- General**
- 1. Permit Application 25284 (H&S)
- 2. Pipeline Leak Detection 25292 (H&S)
- 3. Records Maintenance 2712
- 4. Release Report 2651
- 5. Closure Plans 2670
- 6. Method
  - 1) Monthly Test
  - 2) Daily Vadose  
Semi-annual groundwater  
One time soils
  - 3) Daily Vadose  
One time soils  
Annual tank test
  - 4) Monthly Groundwater  
One time soils
  - 5) Daily Inventory  
Annual tank testing  
Cont pipe leak det  
Vadose/groundwater mon.
  - 6) Daily Inventory  
Annual tank testing  
Cont pipe leak det
  - 7) Weekly Tank Gauge  
Annual tank test
  - 8) Annual Tank Testing  
Daily Inventory
  - 9) Other \_\_\_\_\_
- 7. Precs Tank Test 2643  
Date: \_\_\_\_\_
- 8. Inventory Rec. 2644
- 9. Soil Testing 2646
- 10. Ground Water 2647
- New Tanks**
- 11. Monitor Plan 2632
- 12. Access, Secure 2634
- 13. Plans Submit 2711  
Date: \_\_\_\_\_
- 14. As Built 2635  
Date: \_\_\_\_\_

**Comments:**  
 Welded into the pit from below. Vertical excavation continued until reaching a tan colored native soil which seemed void of HC odor. Note that a bottom sample was not collected. Also note that sidewall samples previously collected were at an approximate depth of 7-8 feet BG, not at the apparent vadose zone / GW interface. And it appears that most of the contamination observed today is to a large extent isolated in the capillary fringe.

Contact: Tex Stokley  
 Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_

Inspector: \_\_\_\_\_  
 Signature: \_\_\_\_\_

II, III

STOKLEY CONSTRUCTION  
P.O. BOX 1008  
TRACY, CA. 95378-1008  
GENERAL ENGINEERING LIC. A 492743  
GENERAL BUILDING LIC B 492743  
HAZARDOUS SUBSTANCE CERTIFICATION  
PHO 209-832-5012  
FAX 209-832-5150

MAY 18, 1992

SCOTT SEARY  
ALAMEDA COUNTY, DEPT OF  
ENVIRONMENTAL HEALTH  
80 SWAN WAY, #200  
OAKLAND, CA. 94621

RE:ABC  
15960 E. 14th ST.  
SAN LEANDRO, CA.

DEAR MR. SEARY,

STOKLEY IS PLEASED TO INFORM YOU OF OUR PLAN OF ACTION AT THE ABOVE SITE. ON 5-12-92 WE CALLED AND INFORMED BAY AREA AIR QUALITY MANAGEMENT DISTRICT. WE INFORM THEM OF OUR PLAN TO SPREAD AND AIRIRATE THE SOIL. ON 5-15-92 THEY CAME BY THE SITE AND INFORM THE OWNER THAT ALL WAS IN ORDER AND IN THERE OPINION THE SOIL WAS NOT VERY BAD. OUR PLAN IS TO BEGIN ON FRIDAY MAY 22, 1992 TO SPREAD THE SOIL ON VISQUEEN IN ABOUT TWO FOOT LAYERS, FOLLOWING REGULATION 8, RULE 40. SOIL SAMPLES WILL BE TAKEN ON AN AS NEEDED BASES.

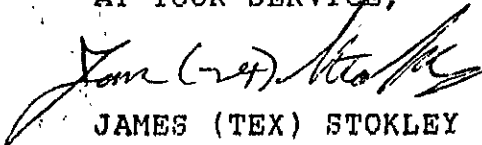
SCOTT SEARY

PAGE TWO

15960 E. 14th ST.

IF YOU HAVE ANY QUESTION CALL ME AT, 209-832-5012.

AT YOUR SERVICE,

  
JAMES (TEX) STOKLEY

JTS/jas

SCOTT SEARY

LAURA BERG

BERG3

**APPENDIX B**  
**ANALYTICAL TEST RESULTS AND**  
**SAMPLE LOCATIONS--**  
**CONFIRMATION TESTING**

(209) 832-5012 or (415) 795-8717  
(209) 832-5150 (Fax)

P.O. Box 1008  
Tracy, CA 95378-1008

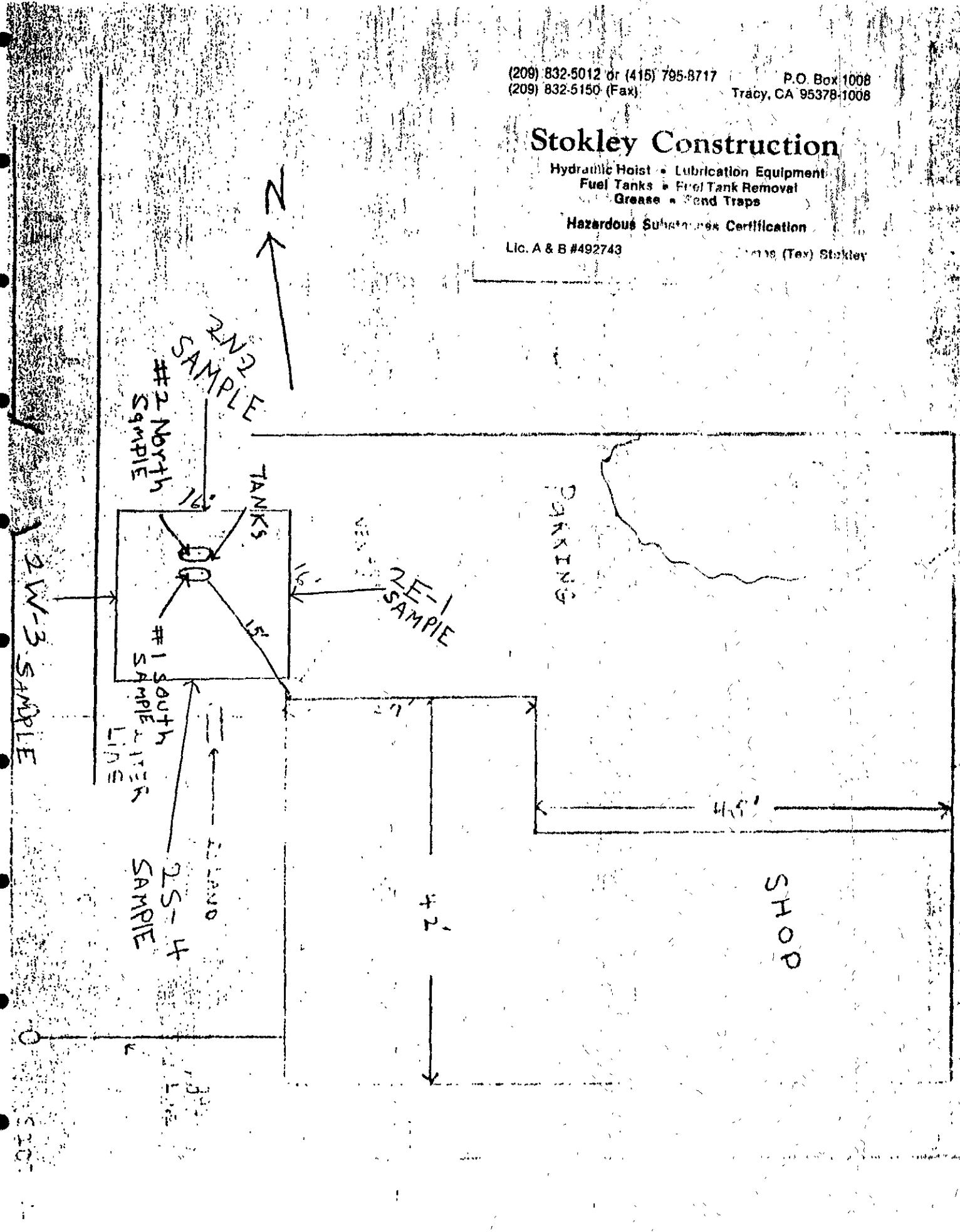
# Stokley Construction

Hydraulic Hoist • Lubrication Equipment  
Fuel Tanks • Fuel Tank Removal  
Grease • Bend Traps

Hazardous Substances Certification

Lic. A & B #492743

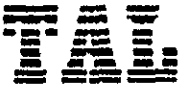
James (Tex) Stokley



**Trace Analysis Laboratory, Inc.**

3423 Investment Boulevard, #8 • Hayward, California 94545

3/31/92  
5-161  
Telephone (510) 783-6960  
Facsimile (510) 783-1512



April 14, 1992

Mr. Tex Stokley  
Stokley Construction  
27550 South Hansen Road  
Tracy, California 95376-9748

Dear Mr. Stokley:


Trace Analysis Laboratory received two soil samples on March 31, 1992 for your project, Berg (our custody log number 1954).

These samples were analyzed for Total Petroleum Hydrocarbons as Gasoline and Benzene, Toluene, Ethylbenzene, Xylenes and Lead. Our analytical report and a copy of the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

  
Jennifer Pekol  
Project Specialist

Enclosures

Trace Analysis Laboratory, Inc.

3480 Invertnight Boulevard, #8 • Hayward, California 94545

Telephone (510) 783-6960  
Facsimile (510) 783-1512

LOG NUMBER: 1954  
DATE SAMPLED: 03/31/92  
DATE RECEIVED: 03/31/92  
DATE EXTRACTED: 04/05/92  
DATE ANALYZED: 04/14/92  
DATE REPORTED: 04/14/92

CUSTOMER: Stokley Construction  
REQUESTER: Tex Stokley  
PROJECT: Bay

Sample Type: Soil

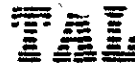
Method and Constituent:	Units	#1 South		#2 North		Method Blank	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	1,100,000	1,100	5,800	500	ND	500
EPA Method 8020 for:							
Benzene	ug/kg	1,200	320	9.9	5.0	ND	5.0
Toluene	ug/kg	5,800	260	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	7,800	320	60	5.0	ND	5.0
Xylenes	ug/kg	82,000	860	240	15	ND	15

QC Summary:

% Recovery: 57  
% RPD: 19

Concentrations reported as ND were not detected at or above the reporting limit.





LOG NUMBER: 1954  
 DATE SAMPLED: 03/31/92  
 DATE RECEIVED: 03/31/92  
 DATE EXTRACTED: 04/06/92  
 DATE ANALYZED: 04/07/92  
 DATE REPORTED: 04/14/92  
 PAGE: Two

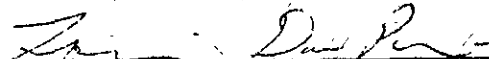
Sample Type: Soil

Method	Units	#1 South		#2 North		Method Blank	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
EPA Method 7420: Lead	ug/kg	9,600	2,500	3,500	2,500	ND	2,500

QC Summary:

% Recovery: 68  
 % RPD: 2.6

Concentrations reported as ND were not detected at or above the reporting limit.

  
 Louis W. DuPuis  
 Quality Assurance/Quality Control Manager

(209) 832-5012 FAX (209) 832-5150

INDEX OF CUSTODY RECORD

Proj. No.	Project Name				No. of Containers	REMARKS
	Berg					
Sampler's: (Signature) <i>John (29) Stabky</i>						
Sample ID	Date	Time	Site Location	No. of Containers	REMARKS	
#1 south	3-31-92	3:30	15960 Bell St		1	Walk In Soil Bt en. Y-6 100 g Bag TAT
#2 North	3-31-92	3:37		1		
Received by: (signature) <i>Ret Stabky</i>						
Received by: (signature) <i>Charles Shepard</i>						
Received for Laboratory: (signature) <i>Jannette Luft</i>						

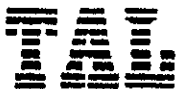
Date/Time	3-31-92 3:50
Date/Time	3-31-92 4:20
Date/Time	3/31/92 4:20

*Net Berg*

**Trace Analysis Laboratory, Inc.**

3423 Investment Boulevard, #8 • Hayward, California 94545

4/14/92  
Telephone (510) 783-6960  
Facsimile (510) 783-1512



May 1, 1992

Mr. Tex Stokley  
Stokley Construction  
P.O. Box 1008  
Tracy, California 95376-1008

Dear Mr. Stokley:

Trace Analysis Laboratory received four soil samples and one water sample on April 14, 1992 for your project, Berg 2 (our custody log number 2005).

The soil samples were analyzed for Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Ethylbenzene, Xylenes and Lead. The water sample was analyzed for Total Petroleum Hydrocarbons as Gasoline and Benzene, Toluene, Ethylbenzene and Xylenes. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

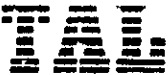
If you should have any questions or require additional information, please call me.

Sincerely yours,

A handwritten signature in cursive script, appearing to read 'Jennifer Pekol', written in dark ink.

Jennifer Pekol  
Project Specialist

Enclosures



LOG NUMBER: 20<sup>02</sup>  
 DATE SAMPLED: 04/11/92  
 DATE RECEIVED: 04/14/92  
 DATE EXTRACTED: 04/29/92  
 DATE ANALYZED: 04/30/92 and 05/01/92  
 DATE REPORTED: 05/01/92

CUSTOMER: Stokley Construction  
 REQUESTER: Tex Stokley  
 PROJECT: Berg 2

Sample Type: Soil

Method and Constituent:	Units	2E-1		2N-2		2W-3	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	ND	500	ND	500
EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0	7.4	5.0
Xylenes	ug/kg	ND	15	ND	15	20	15

Concentrations reported as ND were not detected at or above the reporting limit.

Samples 2E-1 and 2N-2 were analyzed 3 days beyond the 14-day holding time for this analysis.

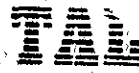
Sample 2W-3 was analyzed 2 days beyond the 14-day holding time for this analysis.

Founding Member of the Association of California Testing Laboratories

Telephone (916) 780-6600  
 Facsimile (916) 780-1811



LOG NUMBER: 20<sup>02</sup>  
 DATE SAMPLED: 04/11/92  
 DATE RECEIVED: 04/14/92  
 DATE EXTRACTED: 04/29/92  
 DATE ANALYZED: 04/30/92 and 05/01/92  
 DATE REPORTED: 05/01/92



LOG NUMBER: 2005  
 DATE SAMPLED: 04/14/92  
 DATE RECEIVED: 04/14/92  
 DATE EXTRACTED: 04/29/92  
 DATE ANALYZED: 04/30/92  
 DATE REPORTED: 05/01/92  
 PAGE: Two

Sample Type: Soil

Method and  
 Constituent:

Units	2S-4		Method Blank		
	Concentration	Reporting Limit	Concentration	Reporting Limit	
DHS Method: Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	ND	500
EPA Method 8020 for: Benzene	ug/kg	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	13	5.0	ND	5.0
Xylenes	ug/kg	32	15	ND	15

IC Summary:

Recovery: 142  
 RPD: 22

Concentrations reported as ND were not detected at or above the reporting limit.

This sample was analyzed 2 days beyond the 14-day holding time for this analysis.

LOG NUMBER: 2005  
 DATE SAMPLED: 04/14/92  
 DATE RECEIVED: 04/14/92  
 DATE ANALYZED: 04/30/92  
 DATE REPORTED: 05/01/92  
 PAGE: Three

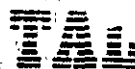
Sample Type: Water

Method and Constituent:	Units	#3		Method Blank	
		Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:					
Total Petroleum Hydrocarbons as Gasoline	ug/l	10,000	250	ND	50
EPA Method 8020 for:					
Benzene	ug/l	ND	90	ND	0.50
Toluene	ug/l	100	88	ND	0.50
Ethylbenzene	ug/l	ND	90	ND	0.50
Xylenes	ug/l	ND	300	ND	1.5

QC Summary:

% Recovery: 86  
 % RPD: 20

Concentrations reported as ND were not detected at or above the reporting limit.  
 This sample was analyzed 7 days beyond the 14-day holding time for this analysis.



LOG NUMBER: 2005  
 DATE SAMPLED: 04/14/92  
 DATE RECEIVED: 04/14/92  
 DATE EXTRACTED: 04/21/92  
 DATE ANALYZED: 04/21/92  
 DATE REPORTED: 05/01/92  
 PAGE: Four

Sample Type: Soil

Method and Constituent:

EPA Method 7420:

Lead

Units	2E-1		2N-2		2W-3	
	Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
ug/kg	5,500	2,500	ND	2,500	ND	2,500

Method and Constituent:

EPA Method 7420:

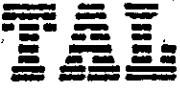
Lead

Units	2S-4		Method Blank		QC Summary	
	Concentration	Reporting Limit	Concentration	Reporting Limit	% Recovery	% RPD
ug/kg	ND	2,500	ND	2,500	54	3.9

Concentrations reported as ND were not detected at or above the reporting limit.

*Louis W. DuPuis*

Louis W. DuPuis  
Quality Assurance/Quality Control Manager



CHAIN OF CUSTODY RECORD

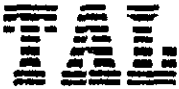
Proj.No.		Project Name		No. of Containers	Analyses: TPHG/BTEX Pb per Tex Stately telecom 4/15/92				
Company Name and Address:									
Project Manager:									
Sample ID	Date	Time	Site Location	REMARKS					
2-E-1	4-14-92	1:50 PM	13960 +5600	1	X	X			
2-N-2	1	1:50	1	1	X	X			
2-W-3	1	2:50	1	1	X	X			
2-S-11	1	2:00	1	1	X	X			
3-2	1	1	1	1	X	X			walk-in samples water - 3-40m/ea soil - 1bt ea
3-3	1	1	1	1	X	X			white soil Y-B Reg
Sampled by: (signature)			Date/Time	Relinquished by: (signature)			Date/Time		
Received by: (signature)			Date/Time	Relinquished by: (signature)			Date/Time		
Received for Laboratory by: (signature)				Date/Time	TURNAROUND TIME				
REMARKS									



Trace Analysis Laboratory, Inc.

3423 Investment Boulevard, #8 • Hayward, California 94545

4/15/92  
Telephone (510) 783-6960  
Facsimile (510) 783-1512



April 29, 1992

Mr. Tex Stokley  
Stokley Construction  
27550 South Hansen Road  
Tracy, California 95376-9748

Dear Mr. Stokley:

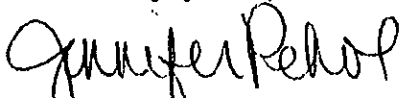
Trace Analysis Laboratory received one water sample on April 15, 1992 for your project, Berg 2 (our custody log number 2008).

This sample was analyzed for Lead. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

  
Jennifer Rekol  
Project Specialist

Enclosures

**Trace Analysis Laboratory, Inc.**

3423 Investment Boulevard, #8 • Hayward, California 94545

Telephone (510) 783-6960  
Facsimile (510) 783-1512



LOG NUMBER: 2008  
DATE SAMPLED: 04/15/92  
DATE RECEIVED: 04/15/92  
DATE EXTRACTED: 04/25/92  
DATE ANALYZED: 04/27/92  
DATE REPORTED: 04/29/92

CUSTOMER: Stokley Construction  
REQUESTER: Tex Stokley  
PROJECT: Berg 2

Sample Type: Water

Method and Constituent:	Units	#3		Method Blank		QC Summary	
		Concen- tration	Reporting Limit	Concen- tration	Reporting Limit	% Recovery	% RPD
EPA Method 7420: Lead	mg/l	ND	0.10	ND	0.10	71	*

Concentrations reported as ND were not detected at or above the reporting limit.

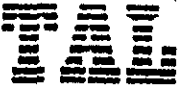
\* The RPD is not reportable since the sample prepared in duplicate was not detectable.

*L. W. DuPuis* for

Louis W. DuPuis  
Quality Assurance/Quality Control Manager

Trace Analysis Laboratory, Inc.  
 3423 Investment Boulevard, #8 • Hayward, California 94545

Telephone (916) 783-3300  
 Facsimile (510) 783-1512



CHAIN OF CUSTODY RECORD

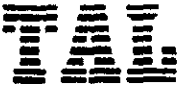
Proj.No.		Project Name		No. of Con- tainers	Analyses:					REMARKS
		Berg 2								
Company Name and Address:										
Stokley Const										
Project Manager:										
TEX Stokley										
Sample ID	Date	Time	Site Location							
#3	4/15/92			1						
									walk-in water	
									500 ml/HNO <sub>3</sub> white 10-day	
Sampled by: (signature)		Date/Time		Relinquished by: (signature)		Date/Time				
Charles Shapiro		12:07 4-15-92								
Received by: (signature)		Date/Time		Relinquished by: (signature)		Date/Time				
Received for Laboratory by: (signature)			Date/Time		TURNAROUND TIME					
Jonneth Inft TAL			12:07 pm 4/15/92		10-day					
REMARKS										

APPENDIX C  
ANALYTICAL TEST RESULTS --  
EXCAVATED SOIL

**Trace Analysis Laboratory, Inc.**

3423 Investment Boulevard, #8 • Hayward, California 94545

Telephone (510) 783-6960  
Facsimile (510) 783-1512



August 11, 1992

Mr. James Tex Stokley  
Stokley Construction  
27550 South Hansen Road  
Tracy, California 95376-9748

Dear Mr. Stokley:

Trace Analysis Laboratory received six soil samples on July 24, 1992 for your project, Berg (our custody log number 2354).

These samples were analyzed for Total Petroleum Hydrocarbons as Gasoline and Benzene, Toluene, Ethylbenzene and Xylenes. Our analytical report and a copy of the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

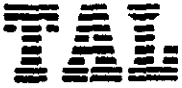
If you should have any questions or require additional information, please call me.

Sincerely yours,

A handwritten signature in cursive script, appearing to read 'Jennifer Rekol', written over the typed name.

Jennifer Rekol  
Project Specialist

Enclosures



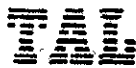
LOG NUMBER: 2354  
 DATE SAMPLED: 07/24/92  
 DATE RECEIVED: 07/24/92  
 DATE EXTRACTED: 07/27/92  
 DATE ANALYZED: 08/04/92  
 DATE REPORTED: 08/11/92

CUSTOMER: Stokley Construction  
 REQUESTER: James Tex Stokley  
 PROJECT: Berg

Sample Type: Soil

Method and Constituent:	Units	7-1		7-2		7-3	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	mg/kg	ND	0.50	ND	0.50	ND	0.50
Modified EPA Method 8020 for:							
Benzene	mg/kg	ND	0.0050	ND	0.0050	ND	0.0050
Toluene	mg/kg	0.0056	0.0050	0.0058	0.0050	ND	0.0050
Ethylbenzene	mg/kg	ND	0.0050	ND	0.0050	ND	0.0050
Xylenes	mg/kg	0.025	0.015	0.015	0.015	ND	0.015
Method and Constituent:	Units	7-4		7-5		7-6	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	mg/kg	ND	0.50	ND	0.50	ND	0.50
Modified EPA Method 8020 for:							
Benzene	mg/kg	ND	0.0050	ND	0.0050	ND	0.0050
Toluene	mg/kg	0.040	0.0050	0.029	0.0050	0.015	0.0050
Ethylbenzene	mg/kg	ND	0.0050	ND	0.0050	ND	0.0050
Xylenes	mg/kg	0.019	0.015	ND	0.015	0.027	0.015

Concentrations reported as ND were not detected at or above the reporting limit.



LOG NUMBER: 2354  
 DATE SAMPLED: 07/24/92  
 DATE RECEIVED: 07/24/92  
 DATE EXTRACTED: 07/27/92  
 DATE ANALYZED: 08/04/92  
 DATE REPORTED: 08/11/92  
 PAGE: Two

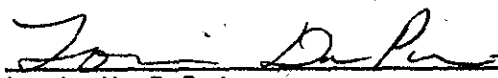
Sample Type: Soil

Method and Constituent:	Units	Method Blank	
		Concen- tration	Reporting Limit
DHS Method:			
Total Petroleum Hydrocarbons as Gasoline	mg/kg	ND	0.50
Modified EPA Method 8020 for:			
Benzene	mg/kg	ND	0.0050
Toluene	mg/kg	ND	0.0050
Ethylbenzene	mg/kg	ND	0.0050
Xylenes	mg/kg	ND	0.015

QC Summary:

% Recovery: 62  
 % RPD: 16

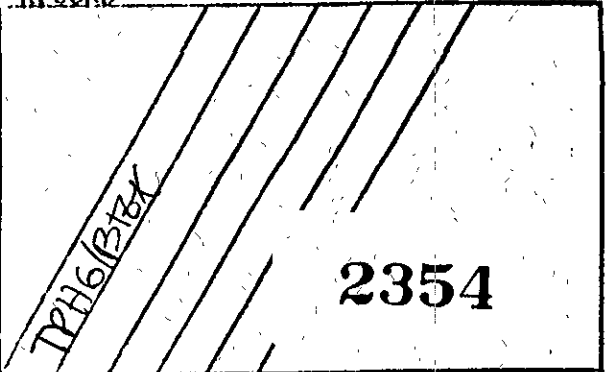
Concentrations reported as ND were not detected at or above the reporting limit.

  
 Louis W. DuPuis  
 Quality Assurance/Quality Control Manager

STOKLEY CONSTRUCTION  
 27550 SOUTH HANSEN ROAD  
 TRACY, CA. 95376-9749

(209) 832-5012 FAX (209) 832-5150

CHAIN OF CUSTODY RECORD

Proj. No.		Project Name		No. of Containers				
		Berg						
Samplers: (signature)								
<i>James A. Neuber</i>								
Sample ID	Date	Time	Site Location					
			15960 E. 14th St San Leandro, CA					
7-1	7-24-92	9:30		X				
7-2	7-24	9:31		X				
7-3	7-24	9:32		X				
7-4	7-24	9:34		X				
7-5	7-24	9:35		X				
7-6	7-24	9:36		X				
	1992							
Relinquished by: (signature)			Date/Time	Received by: (signature)		Date/Time		
<i>Sam Stokes</i>			7-24-92 10:00					
Relinquished by: (signature)			Date/Time	Received by: (signature)		Date/Time		
Received to Laboratory by: (signature)						Date/Time		
<i>TAH Jennifer Kelso</i>						7/24/92 10:00 am		
Remarks: TPH+6 - BTEX 15 day Turn Around								

P.O. 92-0630

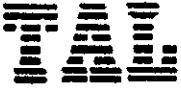
SOIL  
 walk in  
 1-bt ea  
 on ice  
 Y-S  
*JP*



**Trace Analysis Laboratory, Inc.**

3423 Investment Boulevard, #8 • Hayward, California 94545

Telephone (510) 783-6960  
Facsimile (510) 783-1512



August 28, 1992

Mr. James Tex Stokley  
Stokley Construction  
27550 South Hansen Road  
Tracy, California 95376-9748

Dear Mr. Stokley:

Trace Analysis Laboratory received two soil samples on August 14, 1992 for your project, Berg (our custody log number 2407):

These samples were analyzed according to your chain of custody. Our analytical report and a copy of the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

A handwritten signature in cursive script, appearing to read 'Jennifer Pekol', is written over the typed name.

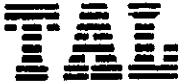
Jennifer Pekol  
Project Specialist

Enclosures

**Trace Analysis Laboratory, Inc.**

3423 Investment Boulevard, #8 • Hayward, California 94545

Telephone (510) 783-6960  
Facsimile (510) 783-1512



LOG NUMBER: 2407  
DATE SAMPLED: 08/14/92  
DATE RECEIVED: 08/14/92  
DATE ANALYZED: 08/24/92 and 08/25/92  
DATE REPORTED: 08/28/92

CUSTOMER: Stokley Construction  
REQUESTER: James Tex Stokley  
PROJECT: Berg

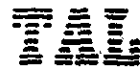
Sample Type: Toxicity Characteristic  
Leaching Procedure  
Extract of Soil

Method and Constituent:	Units	D-1		D-2	
		Concen- tration	Reporting Limit	Concen- tration	Reporting Limit
Modified EPA Method 8020 for:					
Benzene	mg/l	ND	0.00050	ND	0.00050
Toluene	mg/l	ND	0.00050	ND	0.00050
Ethylbenzene	mg/l	ND	0.00050	ND	0.00050
Xylenes	mg/l	ND	0.0015	ND	0.0015

QC Summary:

% Recovery: 93  
% RPD: 2

Concentrations reported as ND were not detected at or above the reporting limit.



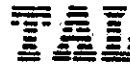
LOG NUMBER: 2407  
 DATE SAMPLED: 08/14/92  
 DATE RECEIVED: 08/14/92  
 DATE EXTRACTED: 08/19/92 and 08/24/92  
 DATE ANALYZED: 08/25/92  
 DATE REPORTED: 08/28/92  
 PAGE: Two

Sample Type: Waste Extraction Test  
 Extract of Soil

<u>Method and Constituent:</u>	<u>Units</u>	<u>D-1</u>		<u>D-2</u>	
		<u>Concen- tration</u>	<u>Reporting Limit</u>	<u>Concen- tration</u>	<u>Reporting Limit</u>
EPA Method 7420: Lead	mg/l	0.60	0.10	40	0.10

<u>Method and Constituent:</u>	<u>Units</u>	<u>Method Blank</u>		<u>QC Summary</u>	
		<u>Concen- tration</u>	<u>Reporting Limit</u>	<u>% Recovery</u>	<u>% RPD</u>
EPA Method 7420: Lead	mg/l	ND	0.10	102	4.3

Concentrations reported as ND were not detected at or above the reporting limit.



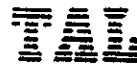
LOG NUMBER: 2407  
DATE SAMPLED: 08/14/92  
DATE RECEIVED: 08/14/92  
DATE ANALYZED: 08/14/92  
DATE REPORTED: 08/28/92  
PAGE: Three

Sample Type: Soil

Method and  
Constituent:

EPA Method 150.1:  
pH

<u>D-1</u>		<u>D-2</u>	
<u>Concen-</u>	<u>Reporting</u>	<u>Concen-</u>	<u>Reporting</u>
<u>tration</u>	<u>Limit</u>	<u>tration</u>	<u>Limit</u>
8.1	± 0.1	8.0	± 0.1

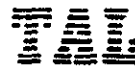


LOG NUMBER: 2407  
DATE SAMPLED: 08/14/92  
DATE RECEIVED: 08/14/92  
DATE ANALYZED: 08/28/92  
DATE REPORTED: 08/28/92  
PAGE: Four

Sample Type: Soil

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<u>Method and Constituent:</u>	<u>Units</u>	<u>D-1</u>		<u>D-2</u>	
		<u>Concen- tration</u>	<u>Reporting Limit</u>	<u>Concen- tration</u>	<u>Reporting Limit</u>
EPA Method 1010: Flashpoint	of	> 140	140	> 140	140



LOG NUMBER: 2407  
DATE SAMPLED: 08/14/92  
DATE RECEIVED: 08/14/92  
DATE ANALYZED: 08/28/92  
DATE REPORTED: 08/28/92  
PAGE: Five

Sample Type: Soil

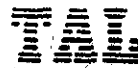
Method and  
Constituent

Reactivity in Water:

5 g of soil sample D-1 was put in contact with deionized water. No temperature change, color change, or bubbling was detected during fifteen minutes of observation.

Reactivity in Water:

5 g of soil sample D-2 was put in contact with deionized water. No temperature change, color change, or bubbling was detected during fifteen minutes of observation.



LOG NUMBER: 2407  
DATE SAMPLED: 08/14/92  
DATE RECEIVED: 08/14/92  
DATE ANALYZED: 08/21/92 and 08/25/92  
DATE REPORTED: 08/28/92  
PAGE: Six

Sample Type: Soil

Method and Constituent:	Units	D-1		D-2	
		Concen- tration	Reporting Limit	Concen- tration	Reporting Limit
SW-846 Section 7.3.3.2: Reactive Cyanide	mg/kg	ND	1.0	ND	1.0

QC Summary:

% Recovery: 78  
% RPD: 19

Method and Constituent:	Units	D-1		D-2	
		Concen- tration	Reporting Limit	Concen- tration	Reporting Limit
SW-846 Section 7.3.4.1: Reactive Sulfide	mg/kg	ND	1.0	ND	1.0

QC Summary:

% Recovery: 74  
% RPD: < 1

Concentrations reported as ND were not detected at or above the reporting limit.

Louis W. DuPuis  
Quality Assurance/Quality Control Manager

(209) 832-5012 FAX (209) 832-5150

(N) Reschive South

CUSTODY RECORD

Proj. No.	Project Name			No. of Containers	REMARKS
	Berg				
Sampler: (Signature)					
Jam (24) Maiky					
Sample ID	Date	Time	Site Location		
		AM	15960 East 14th St		
D-1	8/14/92	8:25	"	1	
D-2	8/14/92	8:30	"	1	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Jam (24) Maiky	8-14/9:00 AM		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Received for Laboratory by: (Signature)	Date/Time
TAL Jimmie Phol See attached	8/14/92 9:00 AM

10 day

walkin soil, 1-bag on ice, 10-day  
 • transferred to 2-4oz jors each for in-house work  
 y-9  
 JP



**APPENDIX D**  
**SITE SAFETY PLAN**

SITE SAFETY PLAN

Project No. E-19-2-064 Field Activities Date Feb/March 1993  
 Client Stokley Construction Address POB 1008 / 72 W. 11th St, Suite E  
 Contact Person James R. "Tex" Stokley Telephone No. Tracy, CA 95378-1008  
209-832-5012  
 Job Location 15960 E-14th St, San Leandro, CA  
 Project Description Exploratory boring/monitoring well installation - former  
U.G. Tanks, Petroleum hydrocarbons  
 Project Manager David F. Hoexter Site Health & Safety Manager David F. Hoexter <sup>(SHSM)</sup>  
 Site History In 1992, two UG tanks which formerly contained petroleum  
hydrocarbons, were removed. Other portions of site were an auto  
wrecking yard

Chemical Hazards

Chemical Name	Description	Health & Safety Standards	Persons Exposed and Potential Routes of Exposure	Symptoms of Acute Exposure
<u>Gasoline</u>	<u>Flammable liquid</u>	<u>300ppm</u>	<u>Driller &amp; field geob-</u>	<u>Dizziness,</u>
	<u>or contaminated</u>	<u>- B W</u>	<u>gist - inhalation</u>	<u>headache,</u>
	<u>solid soil</u>		<u>&amp; skin (dermal)</u>	<u>nausea</u>

Physical Hazards Normal drilling hazards - trip/fall, handling heavy equipment,  
dust; potential nearby auto traffic; underground utilities

Personal Protective Equipment Required PPE - D; have PPE - C available  
Steel-toed boots, hard hats required

Air Monitoring Strategy (including action levels) Anticipated soil, water and air levels  
are low (based on previous analytical levels). Therefore, if nuisance  
odors persist, level C protection (half face protection with organic  
vapor cartridge) may be employed.

Site Control Measures Use traffic cones to block auto and  
limit pedestrian traffic; no smoking, eating  
or drinking in the work area

Decontamination Procedures (personal and equipment) Sampling equipment - TSP/water;  
drilling equipment - steam cleaning w/ decon water retained;  
dermal exposure - soap & water

Hospital/Clinic Fairmont Hospital Phone 510-667-7800

Hospital Address 15400 Foothill Blvd, San Leandro

Paramedic 911 Fire Dept. 911 Police Dept. 911

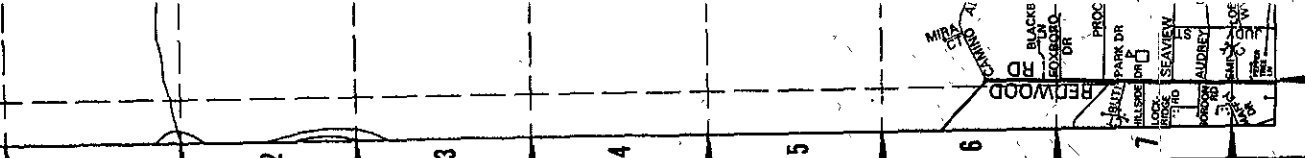
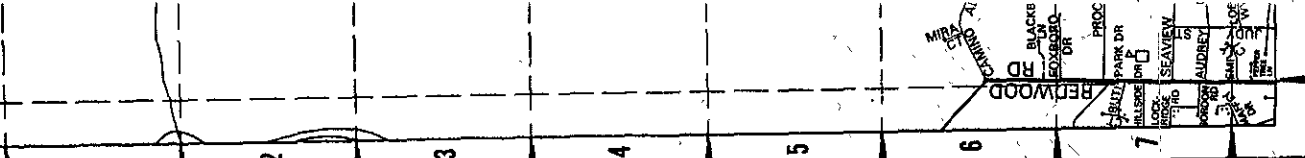
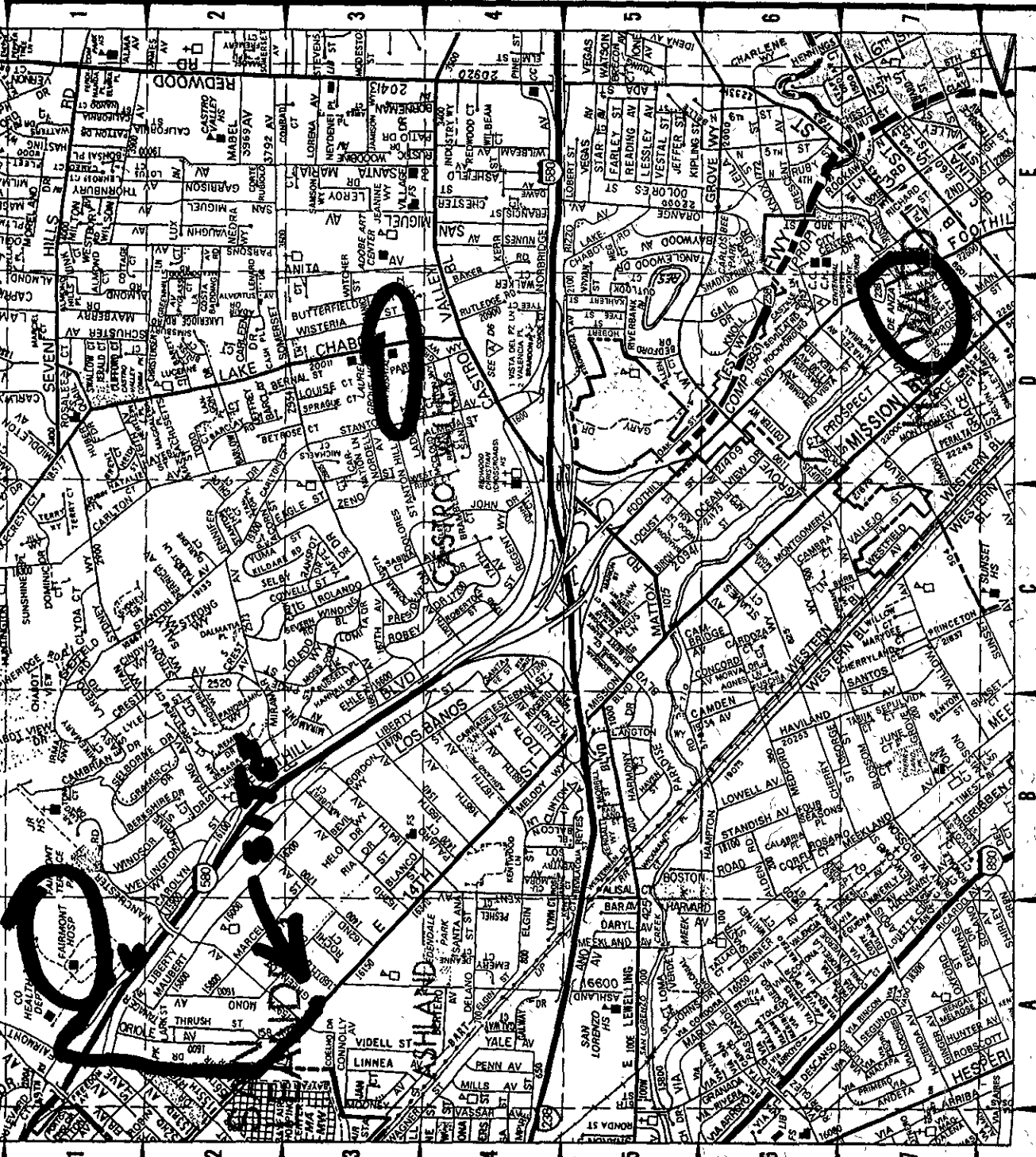
Emergency Procedures Evacuate to open air, First aid equipment (first aid  
kit, fire extinguisher, emergency eye wash) located with drill rig  
and with SHSM/project mgr)

Prepared by D. J. White  
Date 2/8/93

Reviewed/Approved by \_\_\_\_\_  
Date \_\_\_\_\_

Read by \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_  
Date \_\_\_\_\_  
Date \_\_\_\_\_



# SAFETY MEETING

Date \_\_\_\_\_ Time \_\_\_\_\_ Job Number \_\_\_\_\_  
Project Name \_\_\_\_\_ Address \_\_\_\_\_  
Specific Location \_\_\_\_\_  
Type of Work \_\_\_\_\_  
Chemicals Used \_\_\_\_\_

## SAFETY TOPICS PRESENTED

Protective Clothing/Equipment \_\_\_\_\_  
Chemical Hazards \_\_\_\_\_  
Physical Hazards \_\_\_\_\_  
Emergency Procedures \_\_\_\_\_  
Hospital/Clinic \_\_\_\_\_ Phone \_\_\_\_\_ Paramedic Phone \_\_\_\_\_  
Hospital Address \_\_\_\_\_  
Special Equipment \_\_\_\_\_  
Other \_\_\_\_\_

Name (printed)	ATTENDEES	Signature
----------------	-----------	-----------

_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____

Meeting conducted by:

\_\_\_\_\_ Name (printed)

\_\_\_\_\_ Signature

Supervisor \_\_\_\_\_

APPENDIX E  
MONITORING WELL  
CONSTRUCTION DIAGRAM

PROJECT: ABC Mustang

BORING NO: MW-1

DATE DRILLED/LOGGED BY

SAMPLES

TYPE OF BORING/DIAMETER 8" H5A

SURFACE ELEVATION

HAMMER WEIGHT 30" 140#

DESCRIPTION OF MATERIALS:

DEPTH IN FT.	SAMPLE	NUMBER - DIAMETER	BLOWS/FT.	PIG - PPM	GROUND WATER LEVEL	OTHER TESTS	WELL COMPLETION
0							Traffic road
0							Box
5							
10							
15							
20							
25							
30							

locking cap

500t

ben tonite

Anticipated completion - see text for details

slotted

sand

TD ± 25'

Bottom cap

JOB NO: E-19-2-064

HOEXTER CONSULTING, INC.

FIGURE:

**APPENDIX F**  
**QUALIFICATIONS**  
**DAVID F. HOEXTER**



## HOEXTER CONSULTING, INC.

734 Torrey Court  
Palo Alto, California 94303

(415) 494-2505

### DAVID F. HOEXTER

## ENVIRONMENTAL QUALIFICATIONS

### BACKGROUND SUMMARY

David F. Hoexter is an engineering geologist with 18 years of varied geoscience consulting experience. His career has included both engineering geology and environmental consultations, including soil and ground water remediation studies, property transfer assessments, and geologic input to environmental impact reports. He has particular experience within Northern California, as well as throughout the United States, and abroad. Mr. Hoexter founded Hoexter Consulting, Inc., in October, 1991.

### PROFESSIONAL EDUCATION

M.S. Engineering Geology, 1975, Stanford University.

B.A. Geology and Political Science, 1972, University of California, Santa Barbara.

### REGISTRATION

Registered Geologist, RG 3536, 1981.

Certified Engineering Geologist, CEG 1158, 1983.

Registered Environmental Assessor, REA 762, 1988.

### GENERAL EXPERIENCE

- \* Soil and ground water remediation of industrial, commercial, underground tank sites.
- \* Property transfer/environmental assessments, including initial Phase I and Phase II soil and ground water quality studies; studies conducted for developers, financial institutions, engineers.
- \* Completed and current certifications of Health and Safety Training for Hazardous Waste Workers [OSHA 29CFR 1910.120(e)]: 40 hour basic, 8 hour update, and 8 hour supervisor's training.
- \* Corporate Health and Safety Manager for 60 person firm.
- \* Engineering geologic studies for site development, including subdivisions, residences, office and commercial structures; dam sites; slope stability studies; fault rupture hazard; seismicity; stream erosion; environmental impact reports.
- \* Expert witness testimony.
- \* Damage causation evaluations for insurance companies, attorneys, homeowners.
- \* Publications in engineering geology and environmental studies.
- \* Current chairman (1992-94) of 400 member San Francisco Section of the Association of Engineering Geologists.

## REPRESENTATIVE EXPERIENCE

Parcel Distribution Facility, Richmond California: conducted preliminary environmental assessment and follow-up subsurface investigations and remediation of 63 acre former industrial site; initial studies resulted in delineation of 12 areas of possible contamination and consequent soil and ground water quality investigation. Delineated contaminated areas. Contaminants consisted of TCE, petroleum hydrocarbons, oils, and heavy metals. Conducted hydrogeologic parameter and beneficial use studies. Negotiated cleanup standards with regulatory agencies. Developed work plan for mitigation and remediation of contaminated soils and ground water. Initiated site remediation.

Proposed San Pablo Shopping Center, San Pablo, California: conducted preliminary environmental assessment of approximate 25 acre property, and delineated potential environmental concerns. Performed soil sampling and analytical testing of a former service station on the site, to determine the extent of soils contaminated by gasoline. Confirmed that there was no contamination of ground water to a depth of 50 feet. Recommended contaminated soil mitigation by removal and encapsulation under pavement areas. Negotiated clean-up levels with agencies, and observed and documented the soil remediation.

Clement Street Building, Alameda, California: project manager of cyanide remediation project. Soils contaminated with cyanide and metals from a photoetching company were identified, and the extent of contamination evaluated. The site was located in the basement of a building in use as offices. An innovative combination of soil removal and in-situ encapsulation was developed and implemented. A health-risk evaluation, and extensive regulatory agency negotiations were conducted. Ground water testing indicated minimal risk to drinking water or marine resources.

Los Gatos Parking Structure, Los Gatos, California: during site grading, petroleum hydrocarbon, solvent, and semi-volatile organic compounds were encountered in the vicinity of three previously unknown wooden vats and two underground fuel tanks. A historical review established that the site had been utilized for coal gasification. Managed investigation of this site, including installation of eight monitoring wells and 16 additional borings. Provided observation of tank, vat, and contaminated soil removals, and provided recommendations for soil and ground water remediation.

Paradox Basin Nuclear Waste Repository, Moab, Utah: as member of hydrogeologic team assessing 3,000 foot deep proposed nuclear waste repository for Battelle Memorial Institute and the U.S. Department of Energy; supervised drilling and testing of 5,000 foot deep hydrogeologic test borings and wells. Study involved a multi-million dollar budget to determine primary non-military nuclear waste for entire United States.

Waste Chemical Disposal Wells, Tennessee, Louisiana, Ohio, Alabama: responsible for permitting, installation, and rehabilitation of 3-4,000 foot deep waste chemical by-product brine injection wells.

Chemical Plant Studies, California, Idaho, Utah: investigated the seismic setting of 12 chemical production facilities, as input to structural engineering studies of each site. Evaluated production facilities, waste ponds, and chemical storage vessels.

Proposed Subdivision, Lafayette, California: prepared engineering geologic and geotechnical engineering input to environmental impact evaluation and report for proposed subdivision.

Insurance Company Causation Studies, Northern California: evaluated soil and erosion problems at numerous sites for insurance company claims; studies included extensive evaluation of the flooding at Alviso, Santa Clara County, during winter of 1982-83; landslides; settlement; expansive soil; stream erosion.

Tallahalla Creek Oil Field, Mississippi: evaluated the production potential of an operating oil field. Study included correlation and interpretation of geophysical well logs and structural sections, and determination of remaining recoverable oil.

## PUBLICATIONS

"A Method of Evaluating the Relative Stability of Ground for Hillside Development" (with G. Holzhausen and A.E. Soto); Engineering Geology (Elsevier), 12:319-336, 1978.

"The Structure of a Monocline in the Syrian Arc System, Middle East - Surface and Subsurface Analysis" (with Z. Reches and F. Hirsch), Journal Petroleum Geology, 3.4:413-425, April, 1981.

"Holocene Seismic and Tectonic Activity in the Dead Sea Area" (with Z. Reches), in Dead Sea Rift, R. Freund and Z. Garfunkel, eds., Tectonophysics 80:235-254, 1981.

"Hydrogeologic Testing of the E.J. Kubat Borehole, San Juan County, Utah: Utilization of a High Pressure Instrumented Flow Control System", in Proceedings 1982 Symposium on Instrumentation and Control of Fossil Energy Processes, Argonne National Laboratory, prepared for U.S. Department of Energy, 540-547, 1982.

"Deformation Along the Hayward Fault Zone, North Berkeley: Fault Creep and Landsliding" (with C. Levine, B. Hecht, and G. Collier", in Hart, E.W., et al, Proceedings: Conference on Earthquake Hazards of the Eastern San Francisco Bay Area: C.D.M.G. S.P. 62:217-226, 1982.

"Results of Hydrologic Tests at Gibson Dome No. 1, Elk Ridge No. 1, and E.J. Kubat Boreholes, Paradox Basin, Utah" (with J.W. Thackston, L.M. Preslo and N. Donnelly); Battelle Memorial Institute, Report 491, 1984.

"Pre-Purchase Site Characterization of Soil and Ground Water Quality from the Perspective of California's Silicon Valley" (with D.M. Laduzinsky), Association of Engineering Geologists, Abstracts and Program, 29th Annual Meeting, 1986.

"Pre-Purchase Site Characterization of Soil and Ground Water Quality", Association of South Bay Brokers, Newsletter, Summer, 1986.

"Creep and Downslope Movements in the Hayward Fault Zone in North Berkeley: Ten Years Later", with K. Knudsen, B. Hecht, D. Laduzinsky, and G. Fiedler, in Borchardt, G, et al, Proceedings of the Second Conference on Earthquake Hazards in the eastern San Francisco Bay Area, California Division of Mines and Geology, Special Publication 113, in press.

"Potential for Triggered Slip on Secondary Faults in the East Bay: Implications for the Planning Process", in Borchardt, G, et al, Proceedings of the Second Conference on Earthquake Hazards in the eastern San Francisco Bay Area, California Division of Mines and Geology, Special Publication 113, in press.

dfhrev 1/13/93