TC-9321-03

Final Report
for

SITE INVESTIGATION FOR KELLY'S TRUCK REPAIR OAKLAND, CA

Prepared for:

Caltrans District 4
Environmental Engineering Branch
111 Grand Avenue, 14th Floor
Oakland, California 94623-0660

Prepared by:

Tetra Tech
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February 1993

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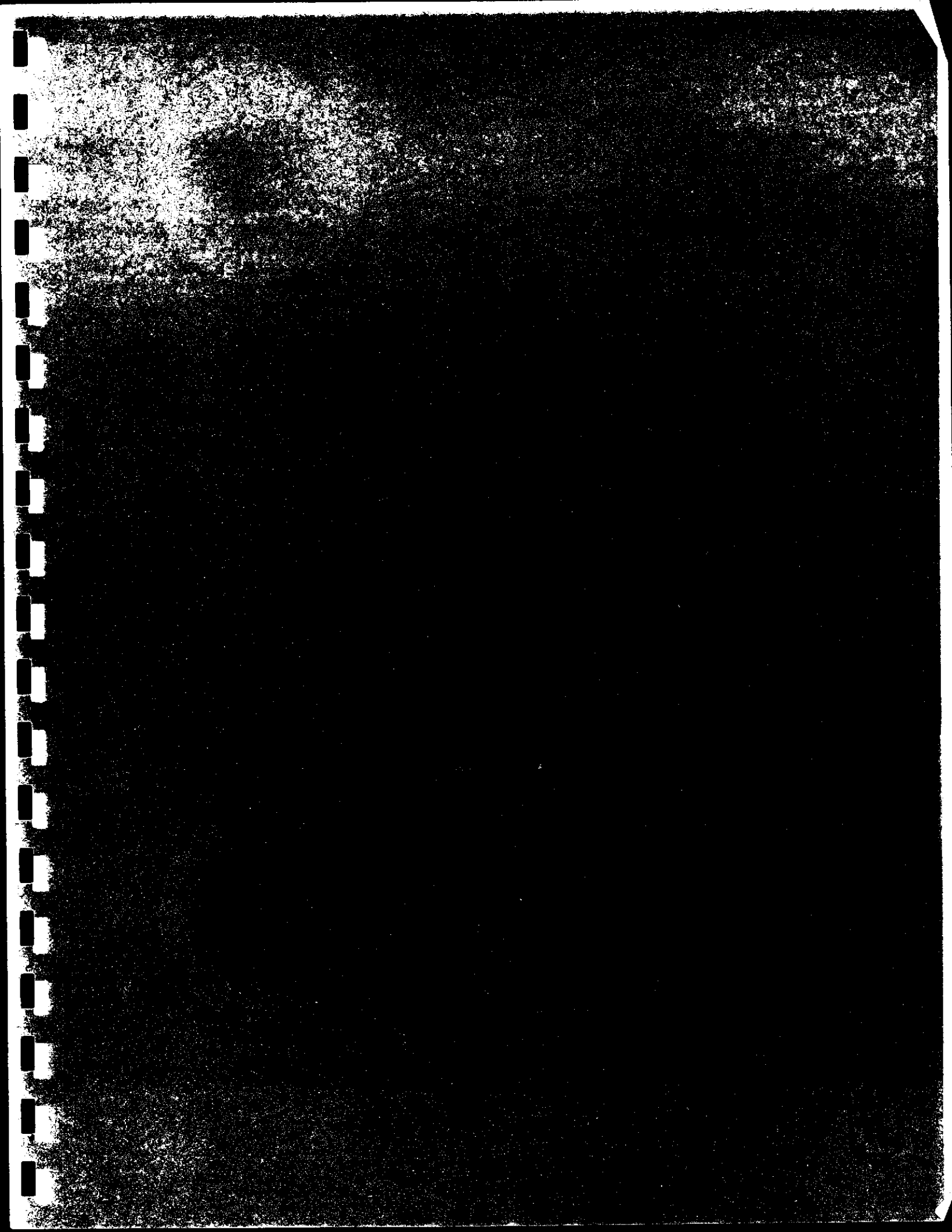

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Telephone (415) 974-1221

February 25, 1993

Mr. Allan Chow
State Department of Transportation
Environmental Engineering Branch
111 Grand Avenue, 14th Floor
Oakland, CA 94623-0660

Subject: Final Report: Site Investigation for Kelly's Truck Repair, Oakland, California
TC 9321-03, Contract No. 535515, Task Order No. 04-191991-01

Dear Mr. Chow:

I have enclosed five copies of the revised Final Report of the Site Investigation for the Kelly's Truck Repair, Oakland, CA. The report was revised as per your suggestions.

Please don't hesitate to call me or Henri Roca at (415) 974-1221 if you have any questions.

Very Truly Yours,

Michael A. Wopat, R.G.
Senior Geologist

Enclosures

TC 9321-03

Final Report
for

SITE INVESTIGATION FOR KELLY'S TRUCK REPAIR OAKLAND, CA

Caltrans Contract No. 53S515, Task Order No. 04-191991-01

Prepared for:

CALTRANS DISTRICT 4
Environmental Engineering Branch
111 Grand Avenue,, 14th Floor
Oakland, CA 94623-0660

February, 1993

Prepared by:

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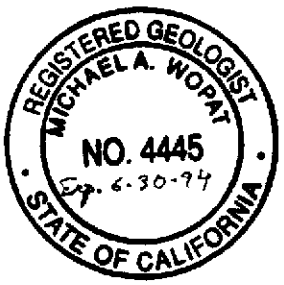
DISCLAIMER

"The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the federal Highway Administration. This report does not constitute a standard, specification, or regulation."

The signature and stamp below constitute a certification that this document was prepared under my direct supervision and guidance.

Michael A. Wopat, Ph.D., R.G.
Senior Geologist
Registered Geologist No. 4445



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1.0 INVESTIGATIVE SUMMARY

Geophysical methods were used at Kelly's Truck Repair to verify the location of the known underground storage tank (UST) and to determine if other USTs might be present on the site. Ground-penetrating radar could not discern or verify the location of the "known" UST, but did identify an unknown anomaly about 15 feet farther west that might represent a UST. Except for this anomaly, no indications of buried tanks were perceived.

The site is underlain by fine- to medium-grained sand. The water table was at a depth of 8.5-9 feet on January 29, when the four soil borings were drilled.

Both the soil and the ground water near the known tank are contaminated by gasoline. Maximum soil contamination is near the water table at a depth of about 8 feet. Concentrations of hydrocarbons in the soil are as high as 6960 mg/kg for Total Recoverable Petroleum Hydrocarbons (TRPH), 2900 mg/kg for Total Petroleum Hydrocarbons as Gasoline (TPH-G), and 7870 mg/kg for Total Petroleum Hydrocarbons as Diesel (TPH-D). A grab ground water sample collected from the down-gradient boring contained 18.2 mg/l TRPH, 8.8 mg/l TPH-G, and 23.9 mg/l TPH-D, and its BTEX contents were 5.88 mg/l Benzene, 0.188 mg/l Toluene, 0. 520 mg/l Ethylbenzene, and 0.586 mg/l Xylenes.

The horizontal extent of the hydrocarbon contamination cannot be ascertained from the data collected to date. However, the high permeability of the sand that underlies the site facilitates dispersion of the contamination by ground water and as vapor. Consequently, both ground water and soil contamination could be extensive.

Neither the ground water sample nor the soil samples contained arsenic, cadmium, chromium, lead, mercury, or zinc in concentrations high enough to be of regulatory concern. In the soil, volatile organic compounds and semivolatile organic compounds are present only in samples that contain significant levels of hydrocarbons.

2.0 INTRODUCTION

This report presents the methods used and results of the Site Investigation at Kelly's Truck Repair yin Oakland, California for Caltrans District 4 pursuant to Contract No. 53S515, Task Order No. 04-191991-01.

2.1 PURPOSE AND OBJECTIVES

The Site Investigation was performed to obtain information needed to accomplish the following objectives:

- Verify the location of the known underground storage tank (UST) using ground-penetrating radar.
- Using ground-penetrating radar and magnetometry, determine if any other underground storage tanks are present on the site.
- Characterize the degree and extent of any soil or ground water contamination that may be present near the known tanks.

2.2 SITE DESCRIPTION

Kelly's Truck Repair is located in west Oakland at the intersection of Mandela Parkway (formerly Cypress Street) and 7th Street (Figure 1). The address of the 0.45 acre site is 1370 7th Street, Oakland. Although used as a truck repair and maintenance facility during the past few years, the site most recently has been used as a parking lot for cars driven by Bay Area Rapid Transit (BART) users.

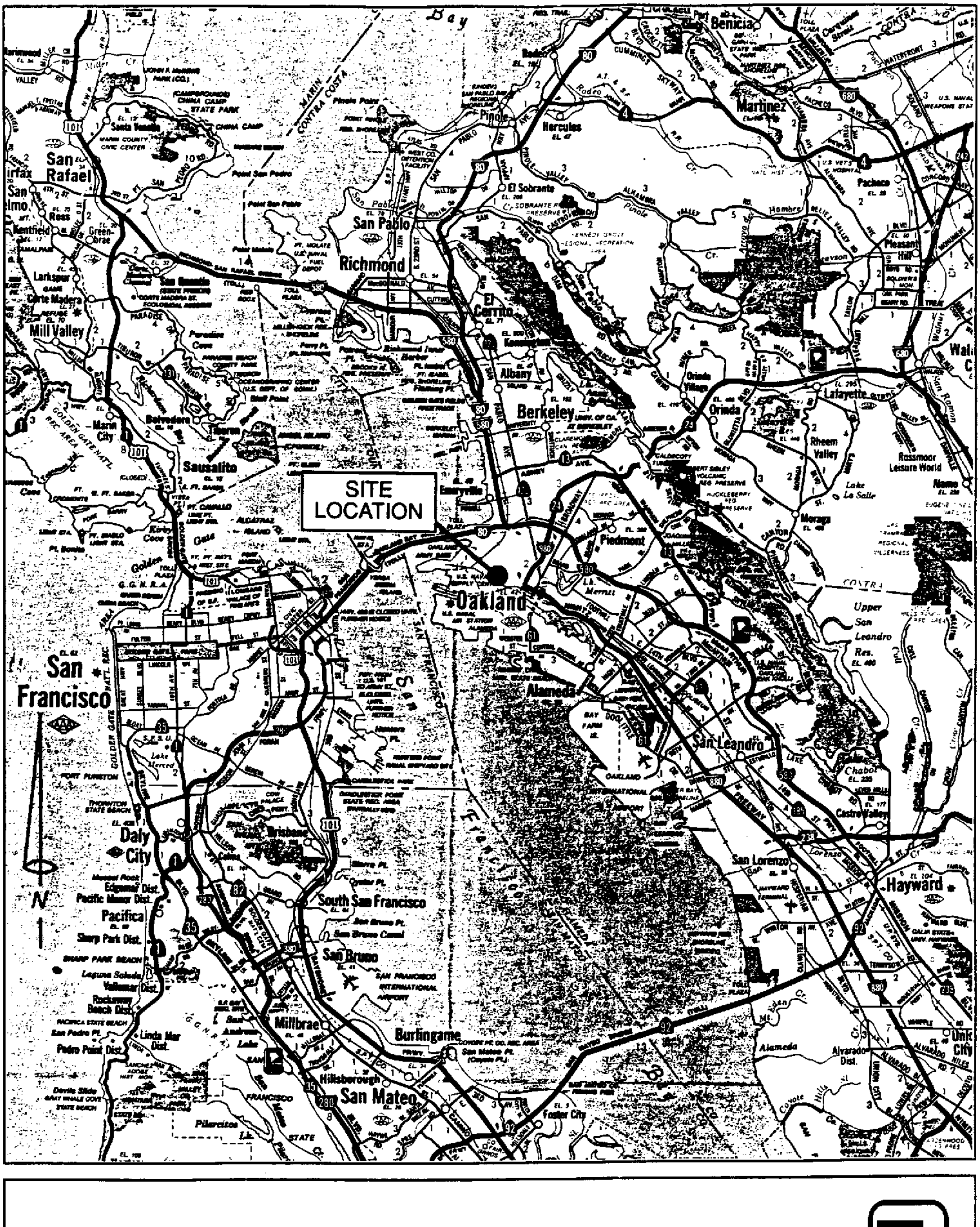


Figure 1A Regional Site Location

Scale: 1" = 4 miles

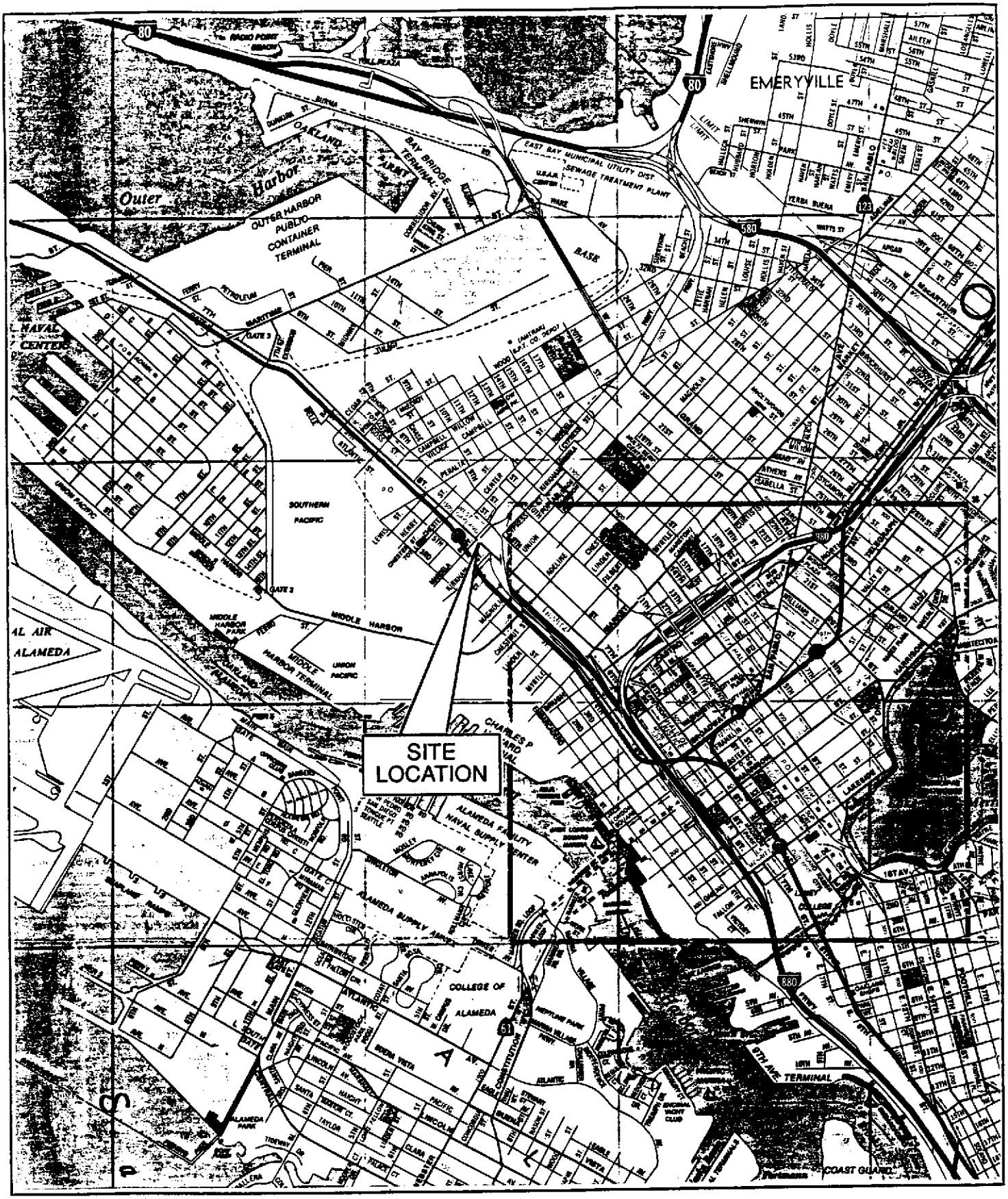


Figure 1B Site Location

Scale: 1" = 1/2 mile

Land surface in the vicinity of the site is at an elevation of about 15 feet above mean sea level and slopes very gently southward. Oakland Inner Harbor, the body of water that separates Alameda from Oakland, lies about 4000 ft to the south. San Francisco Bay (Oakland Outer Harbor) is about 1.5 mi to the northeast.

The site itself consists largely of an asphalt-paved parking lot (Fig. 2). A single-story 50 x 100 ft building, more than 20 ft high, occupies the northwestern side of the lot. A trailer is parked at the southwest end of the building. The site is largely surrounded by steel fencing.

A single 500 gallon underground storage tank is believed to exist on site. According to the owner, the tank is located under the sidewalk just northwest of the south driveway (Figure 2). A strip of fresh concrete covers the fill end of the tank. No pump presently exists for the tank and Mr. Green has removed the tank's vent pipe.

2.2.1 *Land Use*

The area northeast of 7th Street is residential. Southwest of 7th avenue is the BART tracks, trucking companies, a US Post Office Distribution Center, and medium industry.

2.2.2 *Geologic Setting*

Sediments underlying the site consist of Pleistocene-age Merritt Sand overlying peaty mud (Helley, et al, 1972; 1979, p. 26). The Merritt Sand consists of loose, well-sorted, fine- to medium-grained sand with subordinate silt and has a maximum thickness of about 50 ft.

2.2.3 *Hydrogeology*

Because the elevation of the site is less than 15 ft, groundwater was expected to occur at a depth of ≤15 ft below ground surface. The direction of ground water flow is expected to be toward the nearest

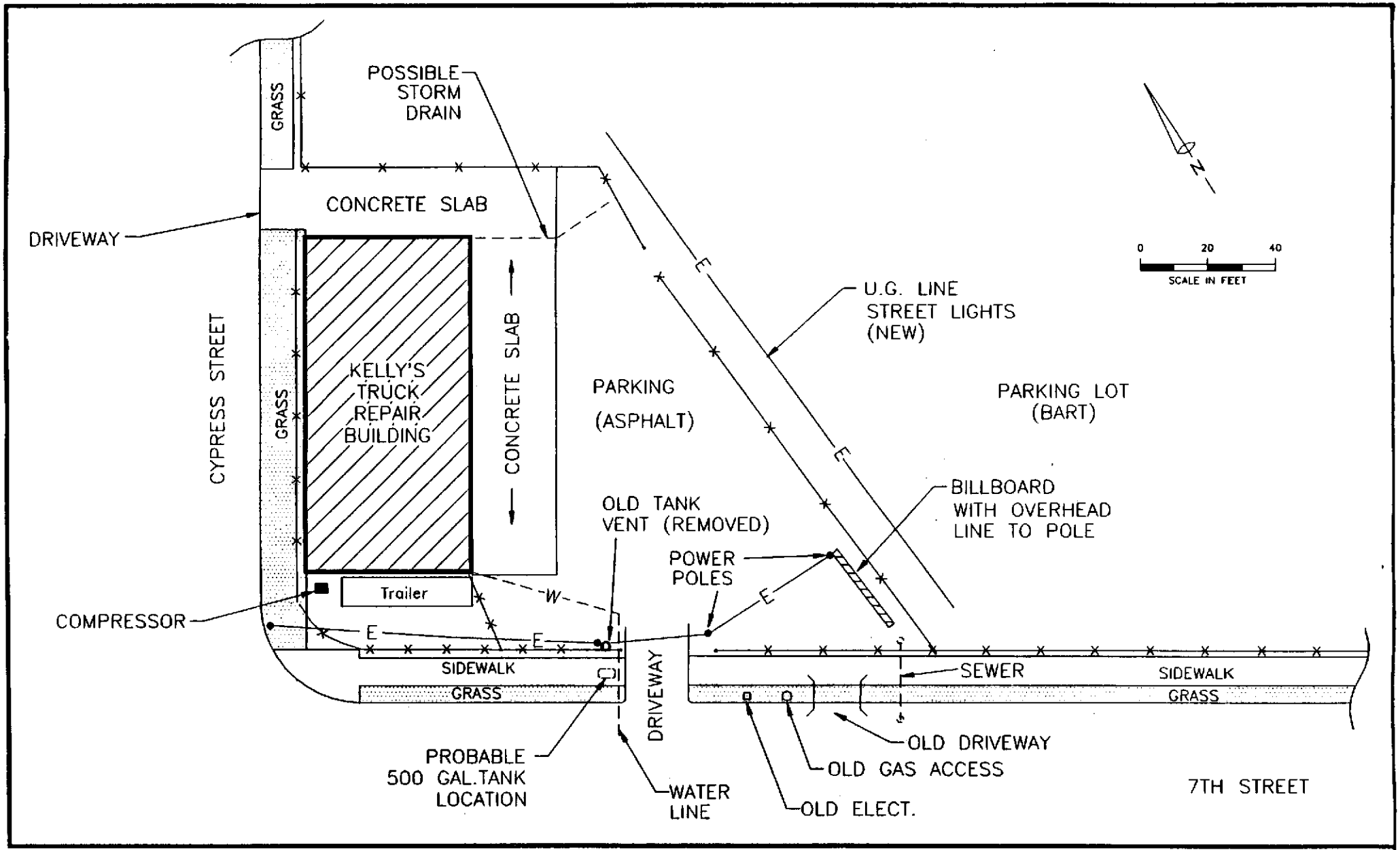


Figure 2

Site Map

KELLY'S TRUCK REPAIR
1370 7TH STREET
OAKLAND, CALIFORNIA

PROJECT NO. 9321-01 DRAWN BY EH DATE 12/23/92 FILE NO.

nearest open body of water, i.e., southward toward the Oakland Inner Harbor.

The Merritt Sand should have very high permeability and hydraulic conductivity. In contrast, the underlying peaty mud will have relatively low permeability and hydraulic conductivity.

2.3 SITE HISTORY

An initial site assessment (ISA) prepared by Caltrans showed the following site history.

- The area of the site contained only dwellings between 1911 and 1935
- The site was shown to be clear of dwellings in 1951
- A small gas station was located on the site for a few years later in the 1950's.
- Between 1967 and 1991 the following owners/tenants were listed at this address by the Haines and Polk Directories:
  - 1967 & 1969 No listing
  - 1973 McClains Trucking
  - 1975 R & R Trailer Repair
  - 1977 No listing
  - 1979 & 1981 Swearingin Trucking
  - 1982 No listing
  - 1985 Kelly's Truck Repair

- 1991 Kelly's Truck Repair
  Kelly's Towing
  Oakland Frame and Axle

The site is owned by Douglas Kelly Green and Carleen Green. As of late December, the site was leased by Caltrans. At that time, the building was used by Caltrans as temporary storage and the parking area was used by Bay Area Rapid Transit (BART) for a passengers parking area. Presently, the site is vacant and is advertised as for lease.

Review of the following lists showed no listing for the Kelly's Truck Repair parcel:

- U.S. Environmental Protection Agency (U.S. EPA) National Priorities list (NPL) for Uncontrolled Hazardous Waste Sites, February 1991
- U.S. EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), July 1991
- California Regional Water Quality Control Board, San Francisco Bay Region (RWWCB) Fuel Leaks List, July 1991
- California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) Unregulated Sites List Region II, July 1991
- Hazardous Waste and Substances Sites List (Cortese List), November 1990
- California Environmental Protection Agency (Cal-EPA), Department of Toxic Substances Control - Calsites List, November 1991

According to Mr. Green, a 500 gallon underground storage tank is located under the sidewalk near the south entrance to the lot. Inquiries of the following local agencies showed no record of an UST for this site.

- City of Oakland, Planning and Building Department
- Fire Department of Oakland
- Alameda County Health Department, Environmental Health Department.

The former contents of the tank were not known. Mr. Green did say that most recently the tank contained water whose elevation rose and fell with the ground water. This indicates that an opening in the tank or piping exists that allows the contents of the tank to equilibrate with the ground water.

2.4 WORK DONE FOR THE INVESTIGATION

The work performed for this investigation consists of the following:

- Prepare Work Plan and Health and Safety Plan (Tetra Tech, 1992a, 1992b);
- Investigate the site using geophysical methods to verify the location of the known UST and to determine if other USTs exist onsite;
- Drill four soil borings adjacent to the known UST and collect 3 soil samples from each boring;
- Collect one grab ground water sample from the down-gradient soil boring;
- Analyze all samples for TPH-G (gasoline), TPH-D (diesel), TRPH (heavy petroleum hydrocarbons such as oil and grease), BTEX (benzene, toluene, ethylbenzene, and xylene), volatile organics, semi-volatile organics, and the six metals arsenic, cadmium, chromium, lead, mercury, and zinc;
- Dispose of the drummed soil and wash water from the soil borings; and,
- Prepare and submit Final Report.

3.0 METHODS

3.1 GEOPHYSICAL INVESTIGATION

The purpose of the geophysical investigation was to (1) precisely locate the known underground storage tank (UST) pointed out by the owner, and (2) survey the rest of the lot to determine if any other USTs may be present.

The geophysical investigation was carried out by JR Associates. JR Associates provided a registered geophysicist, a technician, and equipment to perform a magnetic and radar investigation for one day at the site. Magnetic data was collected on 10 foot centers in the parking area on the east side of the old truck repair building. Radar data was collected over any magnetic anomaly that might indicate a buried tank, along the sidewalks adjacent to 7th Street and Cypress Street including the area designated as the site of the known UST, and in the parking area on the north side of the truck repair building. Radar data was collected along scan lines spaced approximately 5 feet apart. The field work took place on Sunday, December 27th.

A report of the geophysical investigation at Kelly's Truck Repair that describes the methods and results of the investigation was prepared by JR Associates, and is included in its entirety in this report (Appendix A). The report contains brief descriptions of the site, the equipment, and how the equipment was used. The report also contains a magnetic contour map, example radar profiles, and a site map showing the locations of buried pipe, storm drains, and a radar anomaly that might be indicative of a buried tank.

3.2 DRILLING AND SOIL SAMPLING

The purpose of the soil borings and the soil and ground water sampling was to determine if the soil and/or ground water is contaminated with any of the contaminants of concern. Originally, four soil

borings were proposed, one at each side and end of the probable tank. A fifth soil boring was later sited near a possible tank discovered during the geophysical investigation.

After locations of the five borings were marked in white paint, Underground Service Alert (USA) was contacted, so underground utilities could be marked prior to the geophysical investigation. USA No. 37809 was issued December 15, 1992. Final soil boring locations were adjacent to the known and inferred tanks, and took into account the locations of marked and inferred underground utilities.

Prior to drilling, a drilling permit was obtained from the Alameda County Flood Control and Water Conservation District, Zone 7, in Pleasanton, California (Appendix B).

Four soil borings were drilled using a hollow-stem auger drill rig with seven-inch outer-diameter augers. The fifth boring was not drilled due to time constraints. The presence of a overhead power line near the known tank prevented the use of a conventional drill rig because the mast would be too close to the line and might possibly contact it. Because of this, a special low-clearance drill rig, the Access II, was used for drilling. The drilling contractor was Soils Exploration Services of Vacaville, California. Because most of the soil borings were sited in the sidewalks, Vicker's Concrete Sawing, Inc., of San Francisco was subcontracted to core the concrete so the soil borings could be drilled.

Each of the four borings extended to a total depth of 13.5 ft below ground surface (bgs). Soil samples were collected at 5-foot intervals starting at the inferred top edge of the UST and extending to below the water table[1]. Ground water was encountered at an average depth of 8.5 ft bgs. Three soil samples were collected from each soil boring.

Samples were collected using an 18-inch split-spoon sampler containing three 2 x 6 inch stainless-steel sample liners. Samples were obtained by driving the sampler into undisturbed soil ahead of the augers. After the sampler was recovered, the bottom sample liner was removed and prepared for shipment to the analytical laboratory by placing teflon film over both ends of the liner, holding the teflon

[1]Although the task order requested that soil sampling stop at the water table, Tetra Tech recommended that at least one soil sample be collected below the water table in each boring. Fuel hydrocarbons commonly pool at the top of the water table. The sample of uncontaminated soil from below any zone of contamination is needed to constrain the vertical extent of the contamination.

in place with plastic caps, sealing the caps with adhesiveless tape, labeling the liner, and sealing it inside a plastic bag. The sample was then immediately placed in a cooler containing sufficient ice and blue ice to preserve the sample at 4 degrees Celsius until delivered to the laboratory. The field geologist then recorded the lithological description of the sample according to the Unified Soil Classification System (USCS). Field soil boring logs are in Appendix D.

Soil from the borings was put in two 55 gallon DOT drums and labelled for temporary storage onsite.

3.2.1 Surface Repair

Borings were abandoned by backfilling the borings to grade with neat cement.

3.2.2 Decontamination

All auger flights were decontaminated before and between borings using a steam cleaner. Soil sampling equipment was cleaned before and between each sampling event by scrubbing with a brush and laboratory-grade detergent, then triple rinsing with tap water, followed by a distilled water rinse. Decontamination water was put in a 55-gallon drum and labelled for temporary storage onsite.

3.2.3 Soil Sample Analysis

Each sample was labelled and a chain of custody form identifying the samples and analyses to be performed accompanied each sample shipment to the laboratory. All samples were analyzed by the following methods:

- EPA Method 8015 (modified) for Total Petroleum Hydrocarbons as diesel;
- EPA Method 8015 (modified) for Total Petroleum Hydrocarbons as gasoline;

- EPA Method 8020 for Benzene, Toluene, Xylene, and Ethylbenzene;
- EPA Method 418.1 for Total Recoverable Petroleum Hydrocarbons;
- EPA Method 8240 GC/MS for volatile organic compounds;
- EPA Method 8270 for semivolatile organic compounds; and,
- EPA Method 6010 for arsenic, cadmium, chromium, lead, mercury, and zinc.

A 48-hour turnaround time was requested for all analyses. If review of the analytical results showed any analytical result for a metal or volatile organic compound to be more than 10 times the Soluble Threshold Limit Concentration (STLC), a Waste Extraction Test (WET) was to be performed to determine the amount of soluble constituent. Similarly, if any total result for a metal or volatile organic compound was larger than 20 times the Toxicity Characteristic Leaching Procedure (TCLP) value, the TCLP was to be performed to determine the amount of TCLP soluble constituent.

The laboratory was required to perform the appropriate QA/QC procedures for each method used. If the particular method did not specify a QA/QC procedure, then the lab performed analysis on one spiked sample for each 10 samples analyzed, and did a percent recovery on at least one out of every ten samples analyzed.

3.3 GROUND WATER SAMPLING

A grab ground water sample was collected from the downgradient boring (B-4) using a teflon bailer lowered through the hollow-stem auger. The sample bottles were labelled and stored in a cooler with sufficient ice or blue ice to maintain the temperature at 4 degrees Celsius pending delivery to the laboratory. The bailer was decontaminated and cleaned before the sampling event by scrubbing it with a brush and laboratory-grade high-phosphate detergent and triple rinsing it with tap water, followed by a distilled water rinse.

The ground water sample was analyzed by the following methods:

- EPA Method 8015 (modified) for Total Petroleum Hydrocarbons as diesel;
- EPA Method 8015 (modified) for Total Petroleum Hydrocarbons as gasoline;
- EPA Method 602 for Benzene, Toluene, Xylene, and Ethylbenzene;
- EPA Method 418.1 for Total Recoverable Petroleum Hydrocarbons;
- EPA Method 8240 GC/MS for volatile organic compounds;
- EPA Method 8270 for semivolatile organic compounds; and,
- EPA Method 6010 (ICP) for dissolved arsenic, cadmium, chromium, lead, mercury and zinc.

3.4 ACCESS

Caltrans insured that the lot contained no parked cars during the geophysical investigation, and that sufficient space was available in the lot for the driller's trailer and support vehicle during drilling.

3.5 DRUM REMOVAL AND DISPOSAL

A total of three 55-gallon steel drums were completely or partly filled with soil (two drums) and washwater from steam cleaning of the augers and decontamination of the sampling equipment (one drum). The drums were moved January 8, 1993 from Kelly's Truck Repair to 1821 Goss Street, Oakland, California, for temporary storage until disposal. The Goss Street property is owned by Caltrans and is considered to be part of the larger Cypress Project site, as is Kelly's Truck Repair. MBM and Daughters, Redwood City, who specialize in loading and transportation of hazardous materials, moved the drums.

On Friday, January 29, 1993, H&H Environmental Services of San Francisco, who specialize in transportation and disposal of hazardous waste, picked up the drums for disposal. The drums containing soil were transported to Appropriate Technologies in Chula Vista, California, for disposal (Manifest No. 92216323, Appendix E). The drums containing water were taken to H&H Ship Service Company in San Francisco, California (Manifest No. 92216322, Appendix E).

4.0 RESULTS

4.1. GEOPHYSICAL INVESTIGATION

The information presented in this section is largely drawn from the geophysical report by JR Associates (Appendix A).

4.1.1. Magnetics

The parking area east of the building was surveyed on 10 foot centers with a magnetometer. A contour map was generated from the data. The map shows several anomalies, most of which appear to be caused by surface metal. Radar was used to scan those not clearly associated with surface metal. Results of the radar scans suggest the remaining anomalies probably result from buried pipes or metal reinforcement in the cement pad next to the building. There were no geophysical indications of buried tanks in the parking area.

4.1.2. Radar

Ground-penetrating radar was unable to verify the location of the "known" tank located by the owner. However, the radar was able to discern several utilities under the sidewalk, and an unknown anomaly that could be a tank about 15 ft west of the "known" tank (Appendix A, Figure 5). Except for this anomaly, no indications of buried tanks were perceived in the radar data.

4.2. SITE GEOLOGY

Site geology determined from soils encountered in the soil borings is similar to that anticipated (Sec. 2.2.2). The soil consists of grey to brown fine- to medium-grained sand that in some places is silty

and clayey. In borings 1 and 3, a coarse- to very coarse-grained pebbly sand was encountered at 3-3.5 feet below ground surface (bgs). This coarse sand is interpreted as possibly being backfill around the underground storage tank located by the site owner.

Ground water was encountered in the borings at depths of 8.5-9 ft bgs. The direction of ground water flow is presumed to be to the south or southwest, towards the nearest body of open water, Oakland's Inner Harbor. Because the site is about 4,000 feet north of the harbor, ground water flow is unlikely to be affected by tides.

4.3. ANALYTICAL RESULTS

Analytical results for hydrocarbon and metals analyses were initially reported in a letter report to Allan Chow on January 7, 1993. Laboratory reports of analytical results are in Appendix C.

4.3.1. Soil Samples

The soil is clearly contaminated with hydrocarbons at a depth of about 8 feet on the north and east side of the underground storage tank (Figure 3, Table 1A). Concentrations of hydrocarbons in samples B1-8 and B3-8 are as high as 6960 mg/kg for Total Recoverable Petroleum Hydrocarbons (TRPH), 2900 mg/kg for Total Petroleum Hydrocarbons as Gasoline (TPH-G), and 7870 mg/kg for Total Petroleum Hydrocarbons as Diesel (TPH-D). These samples also contained elevated concentrations of Benzene (12.3 mg/kg), Toluene (76.1 mg/kg), Ethylbenzene (24.1 mg/kg) and Xylenes (147.9 mg/kg) (BTEX). According to Shawn Coleman of DAS, the soils and water are contaminated with gasoline; high TPH-D values are a result of overlap of the gasoline contamination into the diesel range.

Concentrations of the six metals were all well below levels of regulatory concern (Figure 3, Table 1B).

Volatile and semivolatile organics are found in the same samples that exhibit significant hydrocarbon contamination (Table 1C). Maximum concentrations are found in samples from about 8 feet

Sample Number	Depth (ft.)	TRPH (ppm)	TPHg (ppm)	TPHd (ppm)	Benzene (ppb)	Toluene (ppb)	Xylene (ppb)	Ethylbenzene (ppb)	Arsenic(ppm)	Cadmium(ppm)	Chromium (ppm)	Lead (ppm)	Mercury(ppm)	Zinc (ppm)
B1-3'	3-3.5	ND	ND	1.6	ND	ND	ND	ND	ND	ND	15.4	ND	ND	17.2
B1-8'	8-8.5	6960	2900	7870	12300	76100	147900	24100	ND	ND	21.6	ND	ND	11.5
B1-13'	13-13.5	ND	10.4	32.3	ND	ND	45	ND	ND	ND	25.3	ND	ND	11.8
B2-3'	3-3.5	ND	1.2	3.5	ND	ND	ND	ND	ND	ND	16.0	9.2	ND	23.3
B2-8'	8-8.5	ND	23.0	59.0	ND	114	238	82	ND	ND	24.5	ND	ND	13.8
B2-13'	13-13.5	ND	1.5	3.8	ND	ND	ND	ND	ND	ND	32.2	ND	ND	18.0
B3-3'	3-3.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	16.6	2.5	ND	20.4
B3-8'	8-8.5	422	562	1470	ND<40	1800	6113	2390	ND	ND	21.3	ND	ND	13.3
B3-13'	13-13.5	ND	3.7	10.3	68	10	ND	ND	ND	ND	17.2	ND	ND	8.0
B4-3'	3-3.5	23.2	1.3	6.9	ND	14	35	ND	1.3	1.6	18.1	43.7	ND	162
B4-8'	8-8.5	ND	14.5	37.8	20	52	ND	169	1.3	ND	41.2	ND	ND	10.7
B4-13'	13-13.5	ND	4.3	12.8	612	16	42	31	ND	ND	31.4	ND	ND	10.6
B4-W1	NA	18.2	8.8	23.9	5880	188	586	520	ND	ND	0.1	ND	ND	ND

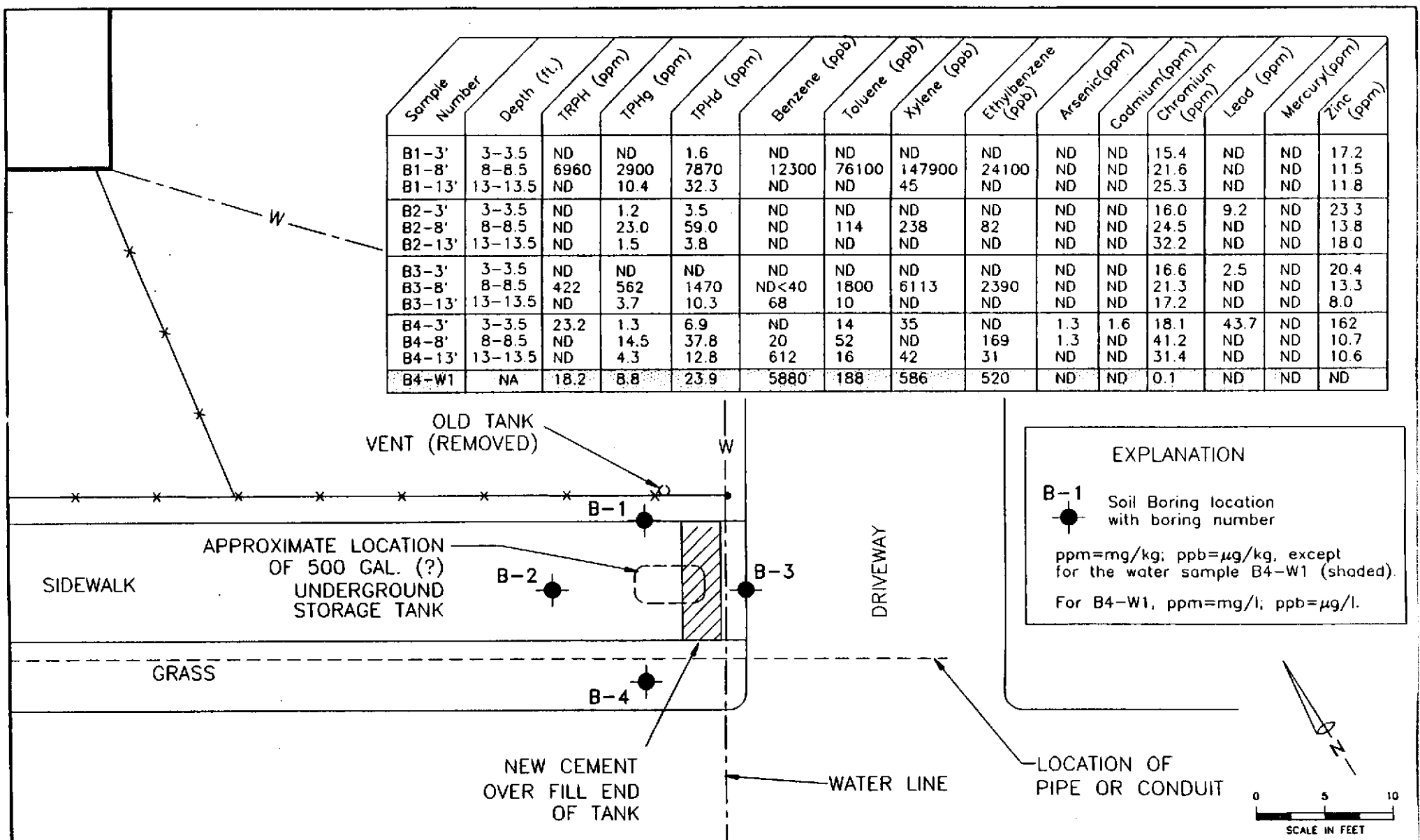


Figure 3 Tank Area, showing location of soil borings and analytical results

KELLY'S TRUCK REPAIR
1370 7TH STREET
OAKLAND, CALIFORNIA

PROJECT NO. 9321-01 DRAWN BY EH DATE 2/1/93 FILE NO.

TABLE 1A
ANALYTICAL RESULTS FOR HYDROCARBONS IN SOIL SAMPLES COLLECTED FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Date Collected	TRPH (418.1) (mg/kg)	TPH-G (8015 mod) (mg/kg)	TPH-D (8015 mod) (mg/kg)	Benzene (8020) (ug/kg)	Toluene (8020) (ug/kg)	Ethylbenzene (8020) (ug/kg)	Xylenes (8020) (ug/kg)
B1-3	12/29/92	ND	ND	1.6	ND	ND	ND	ND
B1-8	12/29/92	6960	2900	7870	12300	76100	24100	147900
B1-13	12/29/92	ND	10.4	32.3	ND	ND	ND	45
B2-3	12/29/92	ND	1.2	3.5	ND	ND	ND	ND
B2-8	12/29/92	ND	23	59	ND	114	82	238
B2-13	12/29/92	ND	1.5	3.8	ND	ND	ND	ND
B3-3	12/29/92	ND	ND	ND	ND	ND	ND	ND
B3-8	12/29/92	422	562	1470	ND	1800	2390	6113
B3-13	12/29/92	ND	3.7	10.3	68	10	ND	ND
B4-3	12/29/92	23.2	1.3	6.9	ND	14	ND	35
B4-8	12/29/92	ND	14.5	37.8	20	52	169	ND
B4-13	12/29/92	ND	4.3	12.8	612	16	31	42
Detection Limit		5	1	1	10	10	10	10
Average		617	293.5	792.3	1083	6509	2231	12864
Maximum		6960	2900	7870	12300	76100	24100	147900
Minimum		ND	ND	ND	ND	ND	ND	ND

ND = Not detected at or above listed detection limit.

TABLE 1B
ANALYTICAL RESULTS FOR METALS IN SOIL SAMPLES COLLECTED FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Date Collected	Arsenic (6010) (mg/kg)	Cadmium (6010) (mg/kg)	Chromium (6010) (mg/kg)	Lead (6010) (mg/kg)	Mercury (6010) (mg/kg)	Zinc (6010) (mg/kg)
B1-3	12/29/92	ND	ND	15.4	ND	ND	17.2
B1-8	12/29/92	ND	ND	21.6	ND	ND	11.5
B1-13	12/29/92	ND	ND	25.3	ND	ND	11.8
B2-3	12/29/92	ND	ND	16	9.2	ND	23.3
B2-8	12/29/92	ND	ND	24.5	ND	ND	13.8
B2-13	12/29/92	ND	ND	32.2	ND	ND	18
B3-3	12/29/92	ND	ND	16.6	2.5	ND	20.4
B3-8	12/29/92	ND	ND	21.3	ND	ND	13.3
B3-13	12/29/92	ND	ND	17.2	ND	ND	8
B4-3	12/29/92	1.3	1.6	18.1	43.7	ND	162
B4-8	12/29/92	1.3	ND	41.2	ND	ND	10.7
B4-13	12/29/92	ND	ND	31.4	ND	ND	10.6
Detection Limit		1	0.5	1	1	1	1
TTLC		500	100	2500	1000	20	5000
STLC		5	1.0	5	5	0.2	250
Average		0.2	0.1	23.4	4.6	0.0	26.7
Maximum		1.3	1.6	41.2	43.7	0	162
Minimum		ND	ND	15.4	ND	ND	8

ND = Not detected at or above listed detection limit.
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration

TABLE 1C
ANALYTICAL RESULTS FOR VOLATILE AND SEMIVOLATILE ORGANICS IN SOIL SAMPLES COLLECTED FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Volatile Organic Compounds (EPA 8240)		Semivolatile Organic Compounds (EPA 8270)	
	Name	Results (ug/kg)	Name	Results (ug/kg)
B1-3	All analytes (n = 40)	ND	All analytes (n = 67)	ND
B1-8	Benzene	7,310	Napthalene	34,229
	Toluene	90,800	2-Methylnapthene	34,995
	Ethylbenzene	50,900	Other 65 analytes	ND
	Meta- & Para-Xylene	201,000		
	Ortho-Xylene	78,900		
	Other 35 analytes	ND		
B1-13	All analytes (n = 40)	ND	All analytes (n = 67)	ND
B2-3	All analytes (n = 40)	ND	All analytes (n = 67)	ND
B2-8	Ethylbenzene	11	All analytes (n = 67)	ND
	Meta- & Para-Xylene	18		
	Other 38 analytes	ND		
B2-13	All analytes (n = 40)	ND	All analytes (n = 67)	ND

TABLE 1C
ANALYTICAL RESULTS FOR VOLATILE AND SEMIVOLATILE ORGANICS IN SOIL SAMPLES COLLECTED FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Volatile Organic Compounds (EPA 8240)		Semivolatile Organic Compounds (EPA 8270)	
	Name	Results (ug/kg)	Name	Results (ug/kg)
B3-3	All analytes (n = 40)	ND	All analytes (n = 67)	ND
B3-8	Ethylbenzene	496	Pyrene	10,526
	Meta- & Para-Xylene	411	Benzo(A)Anthracene	13,062
	Other 38 analytes	ND	Chrysene	17,962
			Benzo(B)Fluoranthene	26,697
			Benzo(K)Fluoranthene	11,961
			Benzo(A)Pyrene	22,106
			Indeno(1,2,3-CD)Pyrene	27,566
			Dibenzo(A,H)Anthracene	8,338
			Benzo(G,H,I)Perylene	31,744
			Other 58 analytes	ND
B3-13	Benzene	12	All analytes (n = 67)	ND
	Other 39 analytes	ND		
B4-3	Toluene	7	All analytes (n = 67)	ND
	All other analytes (n = 39)	ND		
B4-8	Ethylbenzene	9	All analytes (n = 67)	ND
	All other analytes (n = 39)	ND		
B4-13	Benzene	46	All analytes (n = 67)	ND
	All other analytes (n = 39)	ND		

ND = Not Detected at or above listed detection limit for each analyte. See Laboratory results (Appendix C) for detection limits.

TABLE 2A
ANALYTICAL RESULTS FOR HYDROCARBONS IN WATER SAMPLE COLLECTED FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Date Collected	TRPH (418.1) (mg/l)	TPH-G (8015 mod) (mg/l)	TPH-D (8015 mod) (mg/l)	Benzene (602) (ug/l)	Toluene (602) (ug/l)	Ethylbenzene (602) (ug/l)	Xylenes (602) (ug/l)
B4-W1	12/29/92	18.2	8.8	23.9	5880	188	520	586
Detection Limit		1	1	1	10	10	10	10

ND = Not Detected at or above listed detection limit.

TABLE 2B
ANALYTICAL RESULTS FOR DISSOLVED METALS IN WATER SAMPLE COLLECTED FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Date Collected	Arsenic (6010) (mg/l)	Cadmium (6010) (mg/l)	Chromium (6010) (mg/l)	Lead (6010) (mg/l)	Mercury (6010) (mg/l)	Zinc (6010) (mg/l)
B4-W1	12/29/92	ND	ND	0.1	ND	ND	ND
Detection Limit		0.5	0.1	0.1	0.5	0.2	0.1

ND = Not Detected at or above listed detection limit.

TABLE 2C
ANALYTICAL RESULTS FOR VOLATILE AND SEMIVOLATILE ORGANICS
IN GROUND WATER SAMPLE COLLECTED
FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Volatile Organic Compounds (EPA 8240)		Semivolatile Organic Compounds (EPA 8270)	
	Name	Results (ug/l)	Name	Results (ug/l)
B4-W1	Benzene	5,500	Napthalene	306
	Toluene	212	All other analytes (n = 66)	ND
	Ethylbenzene	660		
	Meta- & Para-Xylene	612		
	Other 36 analytes	ND		

ND = Not Detected at or above listed detection limit for each analyte. See Laboratory results (Appendix C) for detection limits.

5.0 DATA EVALUATION AND DISCUSSION

The soils adjacent to the known tank at Kelly's Truck Repair are clearly contaminated with gasoline. The soil contamination appears to be largest about 8 ft bgs, i.e., near the water table. The horizontal extent of soil and ground water contamination is unknown. The high concentration of TPH in samples from borings 1 and 3 suggests that the bulk of the soil contamination is north and east of the tank.

The TPH contents of the water sample clearly demonstrate that the ground water has been contaminated. Ground water is expected to flow to the south or southwest. The elevated levels of BTEX, the water-soluble constituents of gasoline and diesel, in the soil samples from 13 ft bgs (below the water table) in borings B3 and B4 are consistent with down-gradient transport of these constituents by ground water.

The extent of the ground water contamination cannot be determined from the data collected to date. The high permeability of the Merritt Sand facilitates dispersion of the contamination by the ground water and as vapor. Thus, both ground water and soil contamination could be extensive.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Both soil and ground water at the Kelly's Truck Repair site are contaminated with gasoline. The extent of contamination is not known. Additional investigations will be needed if Caltrans wishes to determine the extent of contamination. Because the contaminant is gasoline, Tetra Tech suggests that the extent of contamination be approximately determined with a soil vapor survey. Then, soil borings could be sited on the basis of the soil vapor results and drilled to collect soil and groundwater samples to confirm the extent of contamination.

Once the extent of contamination has been satisfactorily determined, the contaminated soil and ground water should be remediated. The soil could be remediated by (a) excavating it and remediating it on or off site using bioremediation or possibly other methods, or (b) installing a vapor extraction system to remove the volatile gasoline with the soil in place. Ground water could be remediated by pumping the groundwater to the surface, treating it by any of a variety of methods, and either disposing of it, or if approved, returning it to the subsurface. Various other remediation methods are possible, but for the purposes of providing a cost estimate only these are considered.

Once the soil and ground water have been remediated, the ground water will have to be monitored for a minimum of one year to demonstrate that the contamination has been successfully remediated.

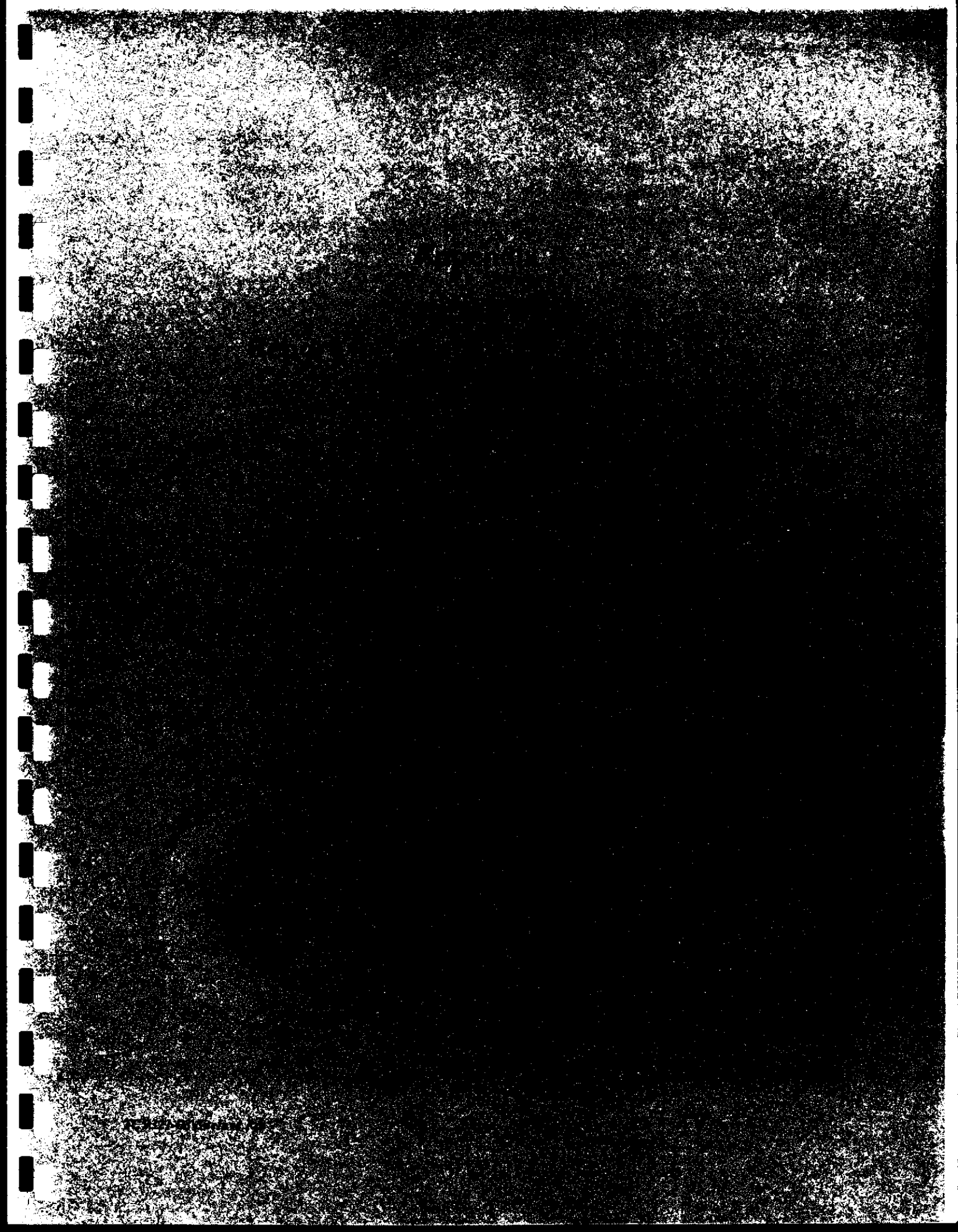
7.0 REFERENCES CITED

Helley, E.J., K.R. Lajoie, and D.B. Burba. 1972. Geologic map of Late Cenozoic deposits, Alameda County, California. Scale 1:62,500.

Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair. 1979. Flatland deposits of the San Francisco Bay Region, California -- their geology and engineering properties, and their importance to comprehensive planning. US Geological Survey Professional Paper 943. 88 pages. 3 Plates, scale 1:125,000.

Tetra Tech, Inc. 1992a. Work Plan for Site Investigation for Kelly's Truck Repair, Oakland, CA (December, 1992).

Tetra Tech, Inc. 1992b. Health and Safety Plan for Site Investigation for Kelly's Truck Repair, Oakland, CA (December, 1992).



J R ASSOCIATES

Engineering Geophysics
1886 Emory Street
San Jose, CA 95126
(408) 293-7390

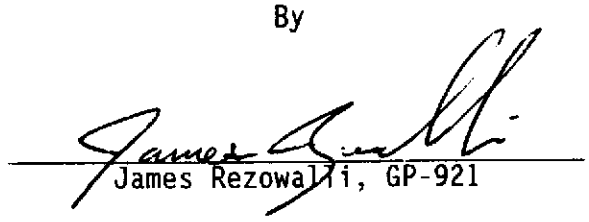
GEOPHYSICAL INVESTIGATION AT KELLY'S TRUCK REPAIR
1370 7TH STREET
OAKLAND, CALIFORNIA

January 5, 1993

For

Tetra Tech, Incorporated
180 Howard Street, Suite 250
San Francisco, California 94105-1221

By



James Rezowalli, GP-921

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LIST OF ILLUSTRATIONS

I INTRODUCTION

This report presents the results of a geophysical investigation performed by J R Associates for Tetra Tech, Incorporated. J R Associates performed the investigation at the Kelly's Truck Repair Site in Oakland, California (Drawing 1). The investigation's purpose was to look for geophysical indications of buried tanks at the site. James Rezowalli, Principal Geophysicist, and Tom Barry, Technician, of J R Associates performed the field investigation on December 27, 1992.

A. Site

Kelly's Truck Repair is at 1370 7th Street in Oakland, California. The site consists of a building formerly used for truck repair, a trailer, and a parking lot (Drawing 1). Cypress Street bounds the site's west side and 7th Street bounds the site's south side. A cyclone fence surrounds the area. The site is currently used for parking.

Tetra Tech provided information regarding an alleged buried tank. The tank is said to be buried under the sidewalk near the 7th Street entrance to the parking lot. The alleged tank's fill spout apparently was covered during the demolition of the Highway 880 overpass. There was no information available to determine if there were other tanks buried at the site. The purpose of the geophysical investigation was to help locate the alleged tank and to help determine if any other tanks are buried at the site.

II METHODS

Several geophysical techniques can detect buried metal objects such as fuel storage tanks. The most appropriate method for this site was a combination of magnetics and ground penetrating radar. A magnetic investigation maps the vertical magnetic gradient. The magnetic gradient is uniform throughout a site free of metal. The magnetic gradient at a site that contains ferrous metal is not uniform. Metal objects produce magnetic anomalies with characteristic shapes and magnitudes. A tank anomaly is characterized by a strong magnetic low just south of the center of the tank and a weaker magnetic high just north of the tank. Magnetic lows typically range from -300 gammas to -1000 gammas. Magnetic highs are usually half the value of the magnetic lows. This type of anomaly is what we use to locate buried tanks.

We augmented the magnetic investigation with a ground penetrating radar. The radar was used in areas where surface metal would interfere with the magnetometer. Also the radar was used to help image the source of magnetic anomalies. The radar sends an energy pulse into the ground. The pulse can be reflected back to the surface by objects such as buried tanks or pipes. Pulses reflected off buried objects are commonly called radar anomalies.

A. Magnetic Instrumentation

We used a Geometrics model 856AG proton precession magnetometer/gradiometer to collect magnetic data at the site. The magnetometer has two sensors and an electronics package. The magnetometer can collect both total field data and vertical gradient data. The magnetometer can discriminate to 0.2 gammas in a total field of 40,000 to 60,000 gammas. Magnetic readings are stored in memory with the time of day, station numbers, and line numbers of the

readings. The data were downloaded to a computer in the field. We then processed and contoured the data using the computer.

B. Magnetic Field Procedures

Magnetic data were collected in the open parking lot (Drawing 2). The data were collected on stations at 10 foot intervals along traverse lines spaced 10 feet apart. A data collection station is shown by "+" on the magnetic contour map. An anomaly is indicated by a series of concentric magnetic contours. There were several magnetic anomalies at the site. These anomalies will be discussed later in the report.

C. Radar Instrumentation

We used a SIR 3 ground penetrating radar system to collect radar data at the site. The SIR 3 has a radar control unit, a graphic profiler, and a 500 MHz antenna. The antenna transmits a radio frequency electromagnetic pulse into the ground. The pulse travels through the ground at approximately 2½ nanoseconds per foot. Buried features, such as tanks, reflect the pulse back to the ground surface. The radar detects the returning reflections and plots them on the graphic profiler.

D Radar Field Procedures

Radar data were collected along the 7th Street sidewalk, the Cypress Street sidewalk, and in the driveway on the north side of the building (Drawing 2). In addition, we collected radar data over magnetic anomalies found in the parking lot. Radar collection began by marking the beginning and the end of a radar scan line. A tape measure was then laid on the ground between the beginning and end marks. The antenna, connected to the control unit by a cable, was dragged along the traverse while collecting a radar profile next to the tape measure. The antenna operator manually marked the radar records

every time the radar antenna traveled 5 feet. The vertical dashed lines on the radar records were created by pressing a momentary switch connected to the antenna. After a traverse was completed, the tape measure was moved to the next scan line and the above process was repeated. Scan lines were spaced approximately 5 feet apart and were oriented both north to south and east to west.

III RESULTS

A. Magnetic Contours

Drawing 3 is a magnetic contour map of the parking area. The contour map contains several magnetic anomalies. Most of the anomalies appear to be caused by surface metal. The anomalies not clearly associated with surface metal were scanned with the radar. The radar indicated the remaining anomalies were probably caused by buried pipes or by metal reinforcement within the concrete pad next to the building. There were no geophysical indications of buried tanks in the parking area.

B. Radar Profiles

Drawing 4 illustrates two radar profiles collected at the site. The profile on the left is one profile collected on the Cypress Street sidewalk. A gas pipe buried beneath the sidewalk is clearly seen in the profile. The depth to the pipe was measured with a pipe and cable locator and determined to be approximately 3.2 feet. The profile on the right shows a pipe buried a little more than 1 foot beneath the surface and an unknown object buried approximately 4½ feet beneath the ground surface. It is possible the unknown anomaly is a small buried tank.

Drawing 5 shows the results of the radar profiles. The radar identified several utilities, many apparently abandoned pipes, and the unknown anomaly illustrated in Drawing 4. Except for the unknown radar anomaly, there were no indications of buried tanks in the radar data.

C. Limitations

Magnetic methods locate ferrous objects from the anomalies they produce in the earth's magnetic field. It is possible that some ferrous objects will not produce an anomaly. Some possible reasons are that the object is buried too deep, the object is too small, the object is buried under or near another ferrous object, or an object is buried near a utility. It is possible there are materials buried at the site that were not detected by the magnetic survey.

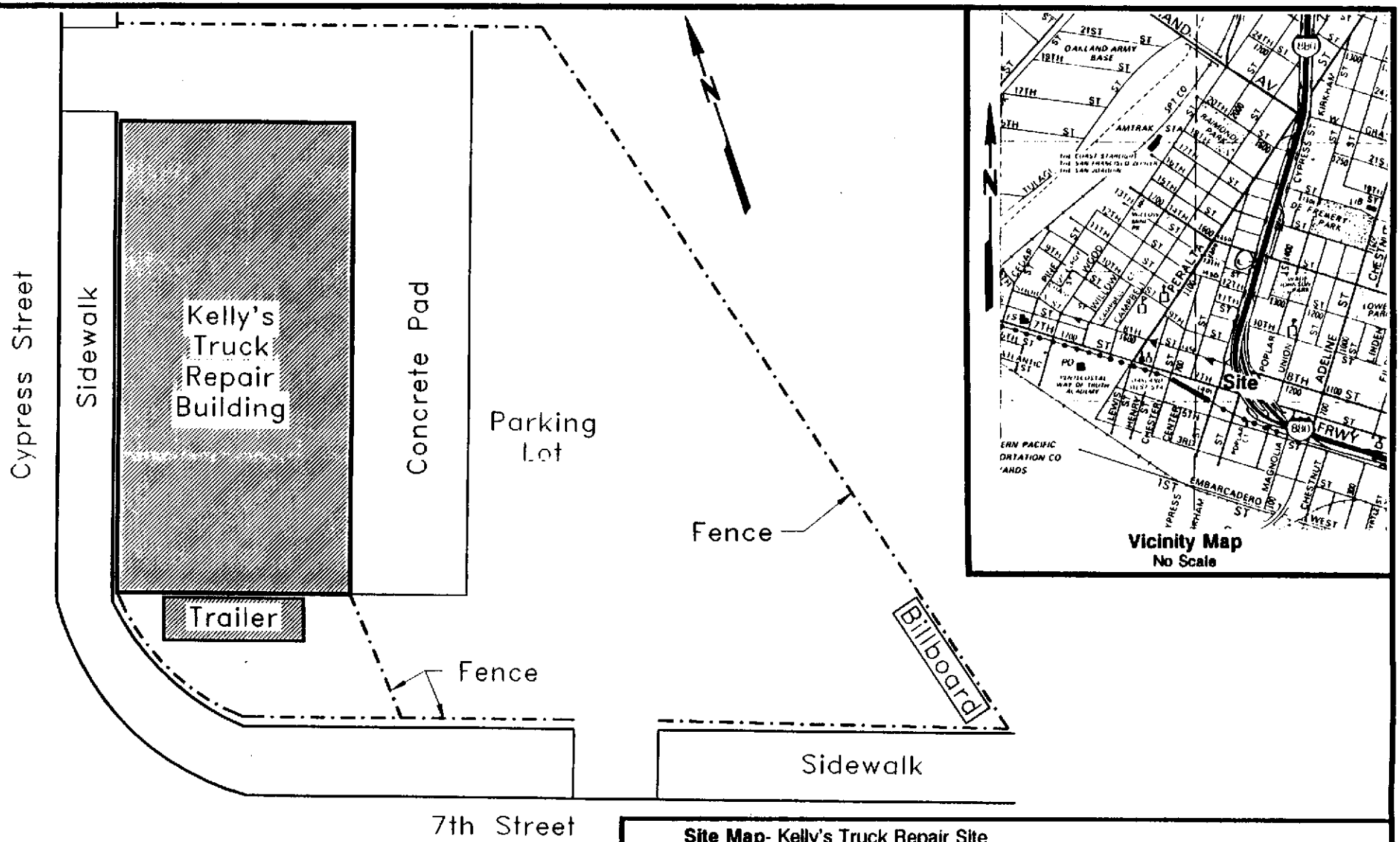
The radar's usefulness is limited by its depth of penetration. The depth of penetration can vary from a few inches to several feet. If a clear reflection is created by a buried object, the reflection can be used to help determine the size and depth of the object. If we see no reflections in an area, the results might be inconclusive. There could be no reflections because there are no buried objects or because the objects were buried deeper than the radar could penetrate. Also the radar cannot distinguish a buried tank from another similar sized object.

We can locate most, but not all, buried utilities in a given area. A buried utility must emit a signal, either a signal transmitted by us or a naturally occurring signal, to be detected by our equipment. The most common type of buried utilities not detected are nonmetal water and sewer lines. Other types of utilities that might not be detected are some communication lines and metal pipelines that are electrically insulated between joints.

D. Conclusions

The geophysical investigation located many objects buried at the site. All of the objects, except one, appear to be buried pipes or metal reinforcement in the concrete pad. There was one buried object that created a radar anomaly that could not be identified (Drawings 4 and 5). The object is buried

approximately 15 feet west of the alleged buried tank location. The buried object could be a small tank. However, the object would have to be excavated to identify it positively.



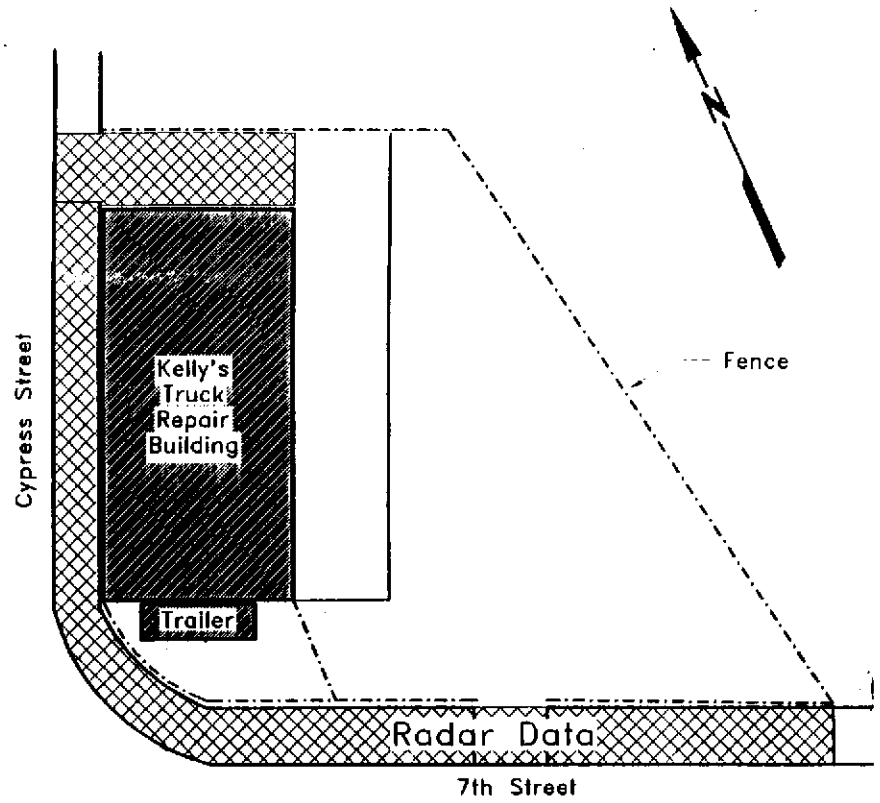
Note: Base map modified from site map provided to us by Tetra Tech.

Site Map- Kelly's Truck Repair Site
Tetra Tech, Incorporated
San Francisco, California

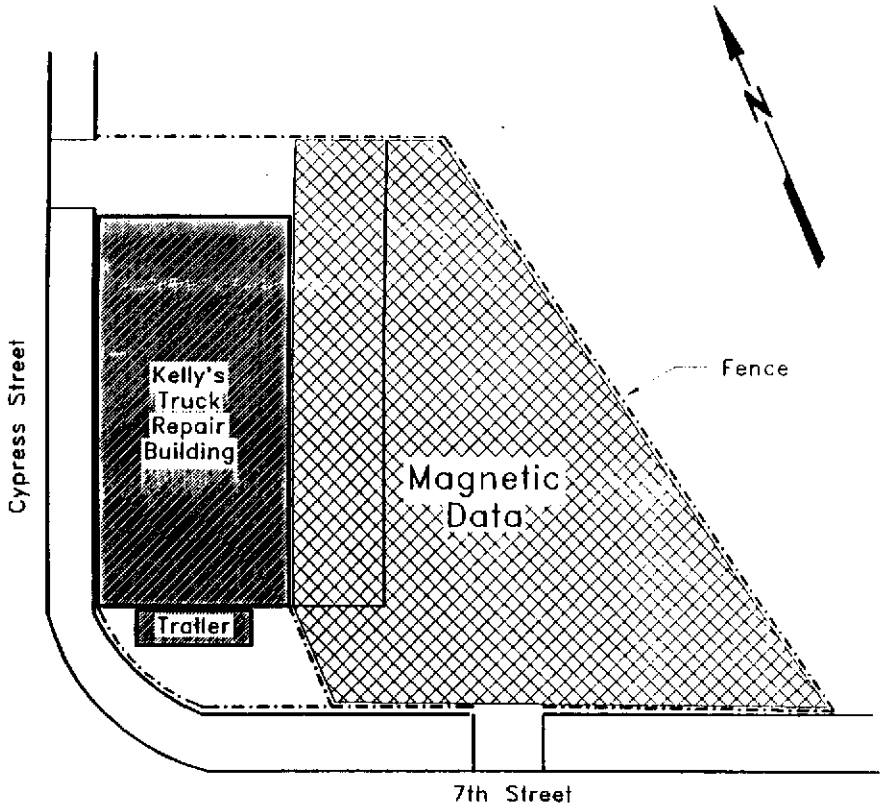
SCALE: 1" = 30'		DRAWN BY J.J.R.
DATE: 1-5-1993	Job Number: 058129-92	REVISED

J R ASSOCIATES Engineering Geophysics
1886 Emory Street, San Jose, CA 95126 (408) 293-7390

DRAWING NUMBER
1



Radar Data Coverage



Magnetic Data Coverage

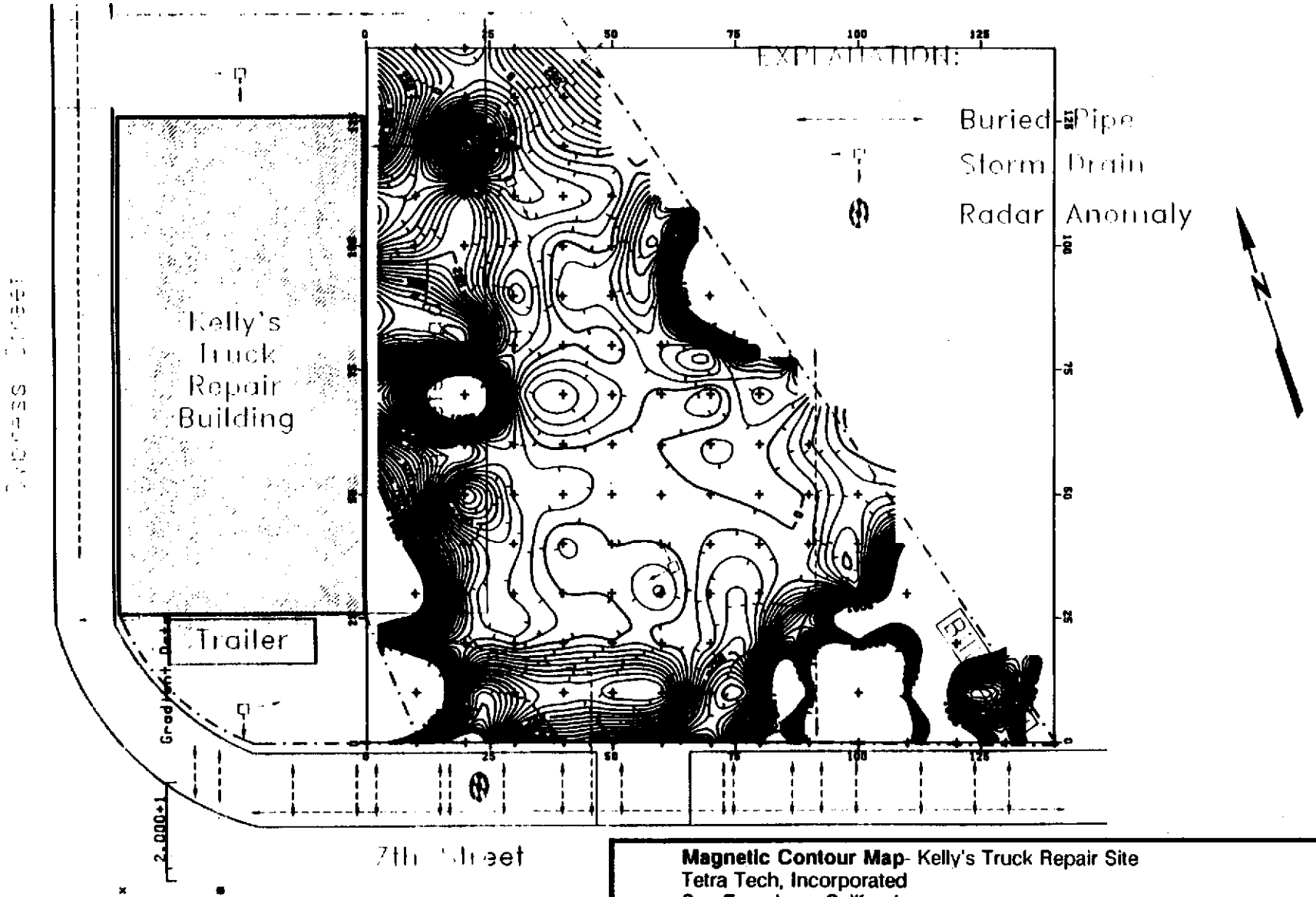
Note: Base map modified from site map provided to us by Tetra Tech.

Data Coverage- Kelly's Truck Repair Site
Tetra Tech, Incorporated
San Francisco, California

SCALE: 1" = 50'		DRAWN BY J.J.R.
DATE: 1-5-1993	Job Number: 058129-92	REVISED

J R ASSOCIATES Engineering Geophysics
1886 Emory Street, San Jose, CA 95126 (408) 293-7390

DRAWING NUMBER
2



Major contours every 250 gammas
Minor contours every 50 gammas

Note: Base map modified from site map provided to us by Tetra Tech.

Magnetic Contour Map- Kelly's Truck Repair Site
Tetra Tech, Incorporated
San Francisco, California

SCALE: 1" = 30'		DRAWN BY J.J.R.
DATE: 1-5-1993	Job Number: 058129-92	REVISED

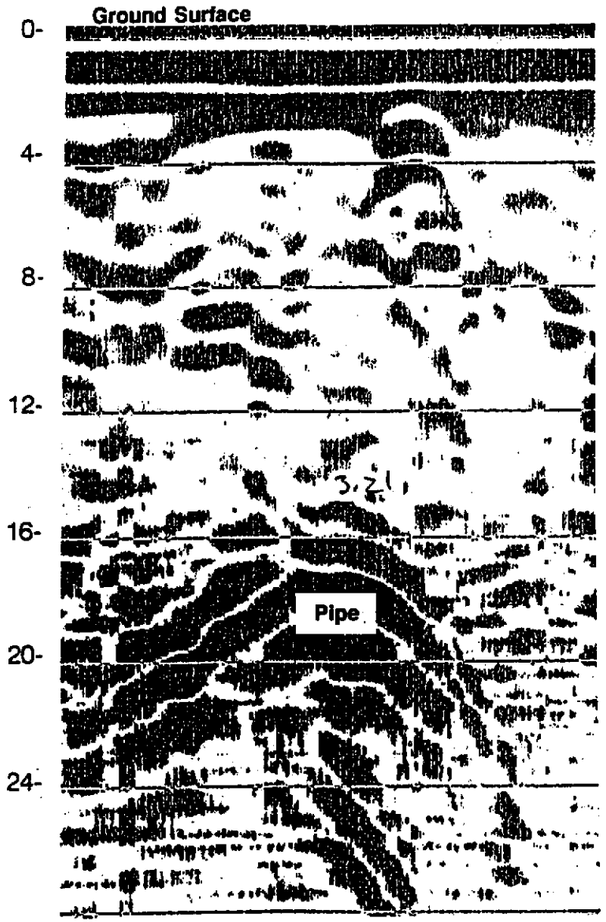
J R ASSOCIATES Engineering Geophysics
1888 Emory Street, San Jose, CA 95126 (408) 293-7390

DRAWING NUMBER
3

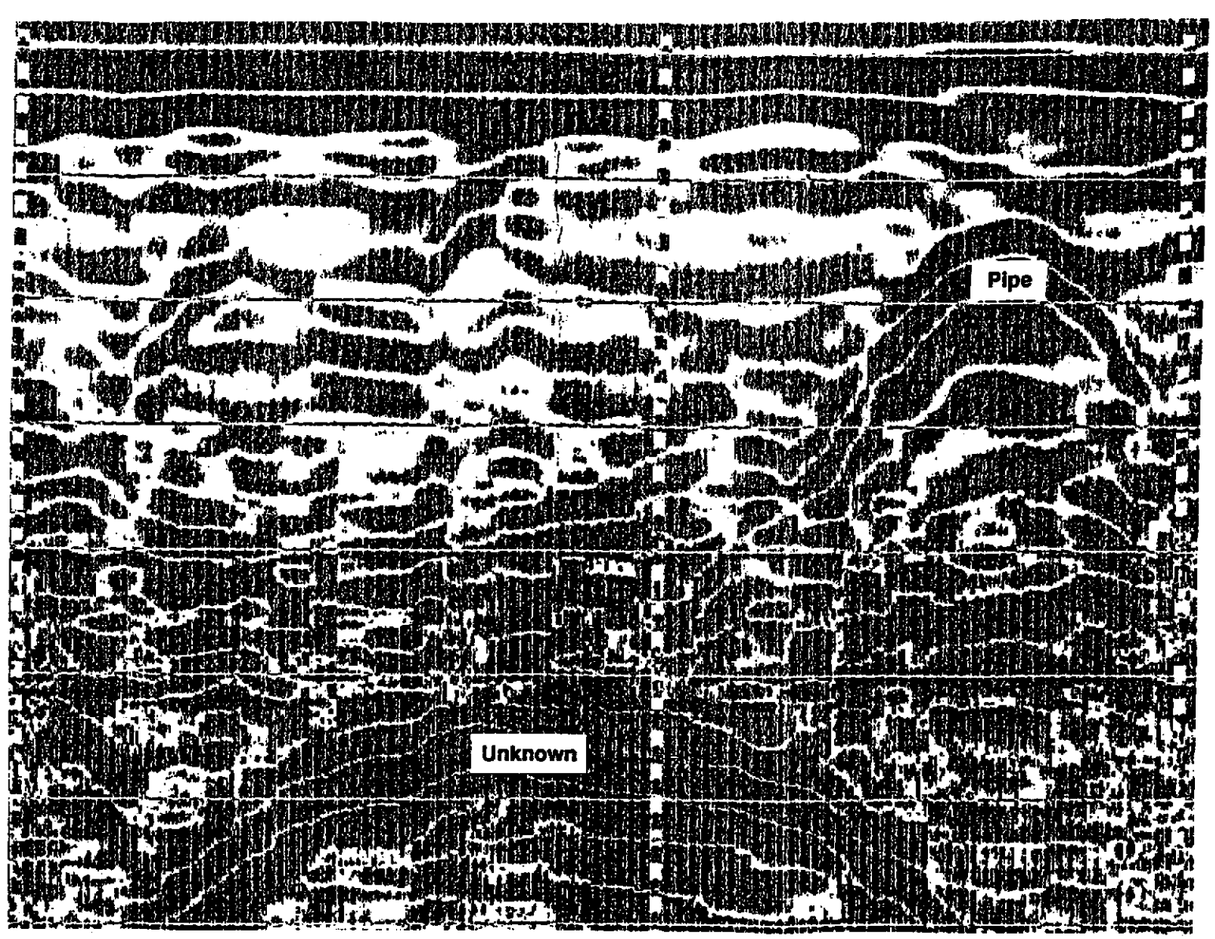
Time (nanoSec)

Approximate Depth (feet)

Time (nanoSec)



Gas Pipe



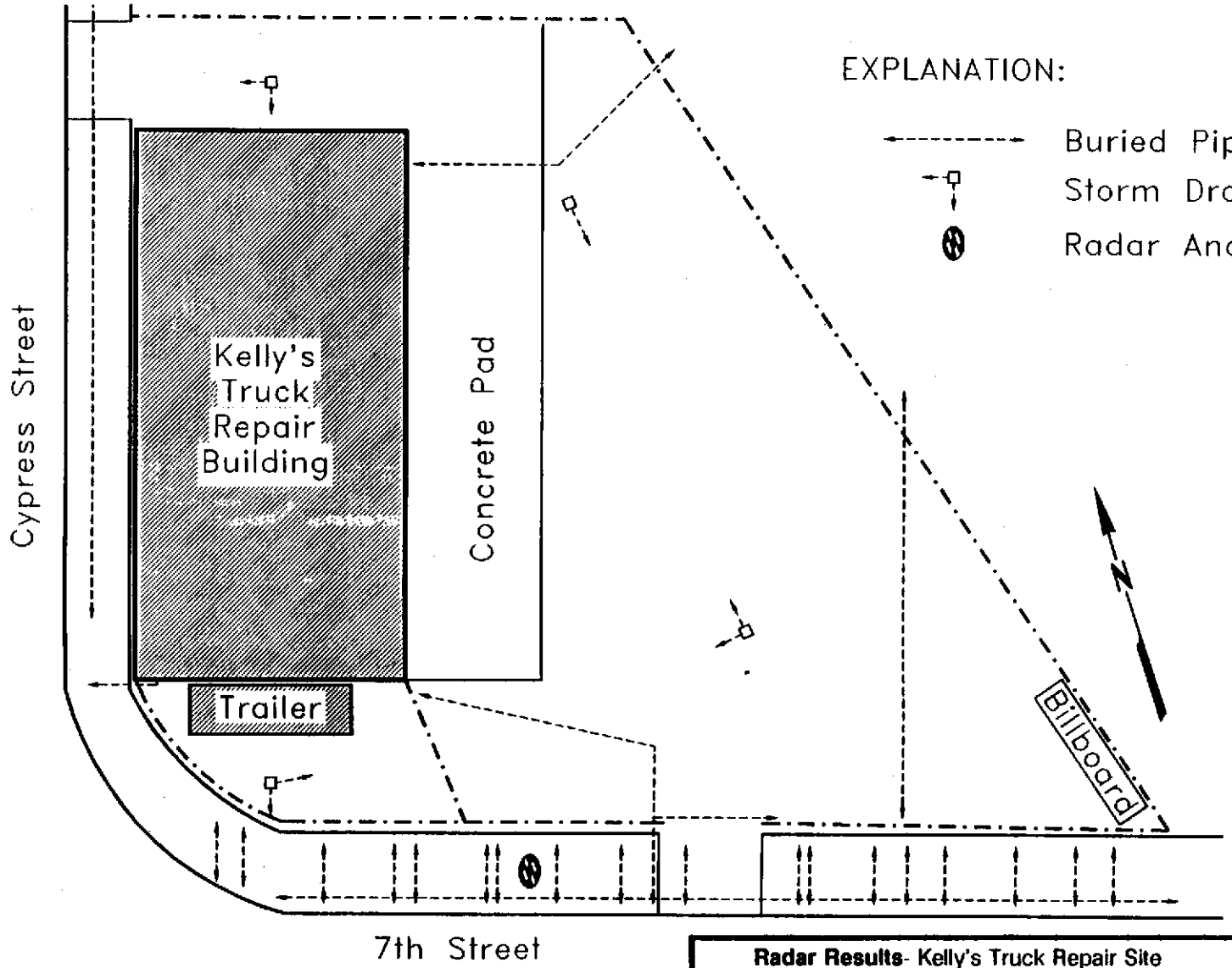
Unknown Anomaly

Example Radar Profiles- Kelly's Truck Repair Site
Tetra Tech, Incorporated
San Francisco, California

SCALE: No Scale		DRAWN BY J.J.R.
DATE: 1-5-1993	Job Number: 058129-92	REVISED

J R ASSOCIATES Engineering Geophysics
1886 Emory Street, San Jose, CA 95126 (408) 293-7390

DRAWING NUMBER
4



Note: Base map modified from site map provided to us by Tetra Tech.

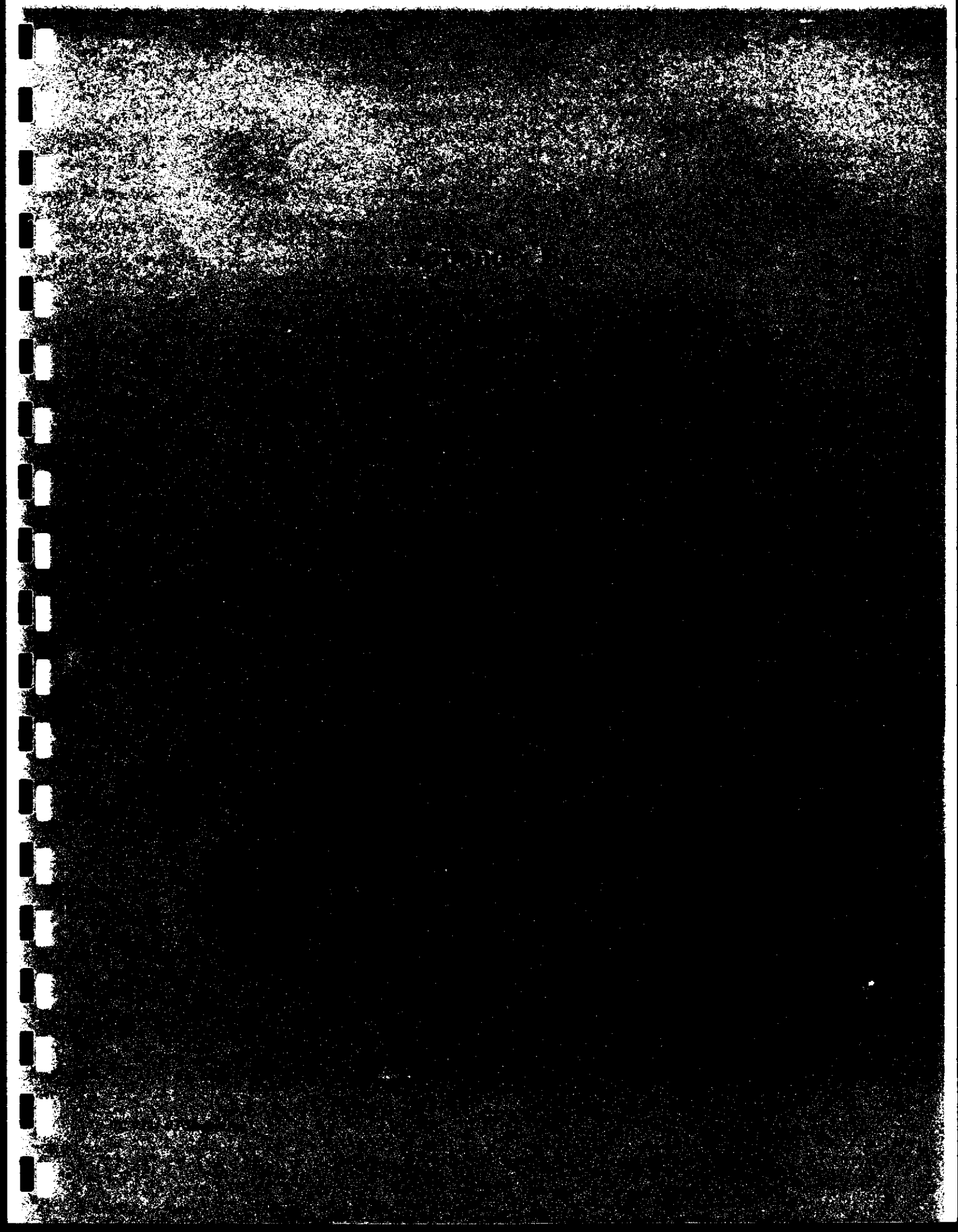
Note: Utility locations are only approximate and some buried utilities may not be mapped.

Radar Results- Kelly's Truck Repair Site
Tetra Tech, Incorporated
San Francisco, California

SCALE: 1" = 30'		DRAWN BY J.J.R.
DATE: 1-5-1993	Job Number: 058129-92	REVISED

J R ASSOCIATES Engineering Geophysics
1886 Emory Street, San Jose, CA 95126 (408) 293-7390

DRAWING NUMBER **5**



ZONE 7 WATER AGENCY

6997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600 FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

PERMIT NUMBER 92654
LOCATION NUMBER

LOCATION OF PROJECT # Former site of Kelly's Truck Repair 1370 7th St, Oakland CA. Site is on the east corner of the intersection of Handola Parkway (Cypress St) and 7th St.

CLIENT
Name Cal. Dept of Transportation - Contact Person: Allan Wong
Address Box 23660 Voice (510) 286-5646
City Oakland, CA Zip 94623-0660

APPLICANT
Name Mike Wopat for Tetra Tech, Inc.
Fax (415) 474-1221
Address 180 Howard St., Suite 250 Voice (415) 474-5914
City San Francisco, CA Zip 94105

TYPE OF PROJECT

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

PROPOSED WATER SUPPLY WELL USE N/A
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ H/S Auger ✓
Cable ___ Other ___

DRILLER'S LICENSE NO. C57 # 582696

WELL PROJECTS N/A
Drill Hole Diameter ___ in. Maximum
Casing Diameter ___ in. Depth ___ ft.
Surface Seal Depth ___ ft. Number ___

GEOTECHNICAL PROJECTS
Number of Borings 4 Maximum
Hole Diameter 2 in. Depth 15 ft.

ESTIMATED STARTING DATE 12/21/92
ESTIMATED COMPLETION DATE 12/23/92
Drill w/in these window frames

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

APPLICANT'S SIGNATURE Mike Wopat Date Dec. 16, 1992

PERMIT CONDITIONS

Circled Permit Requirements Apply

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

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial well or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

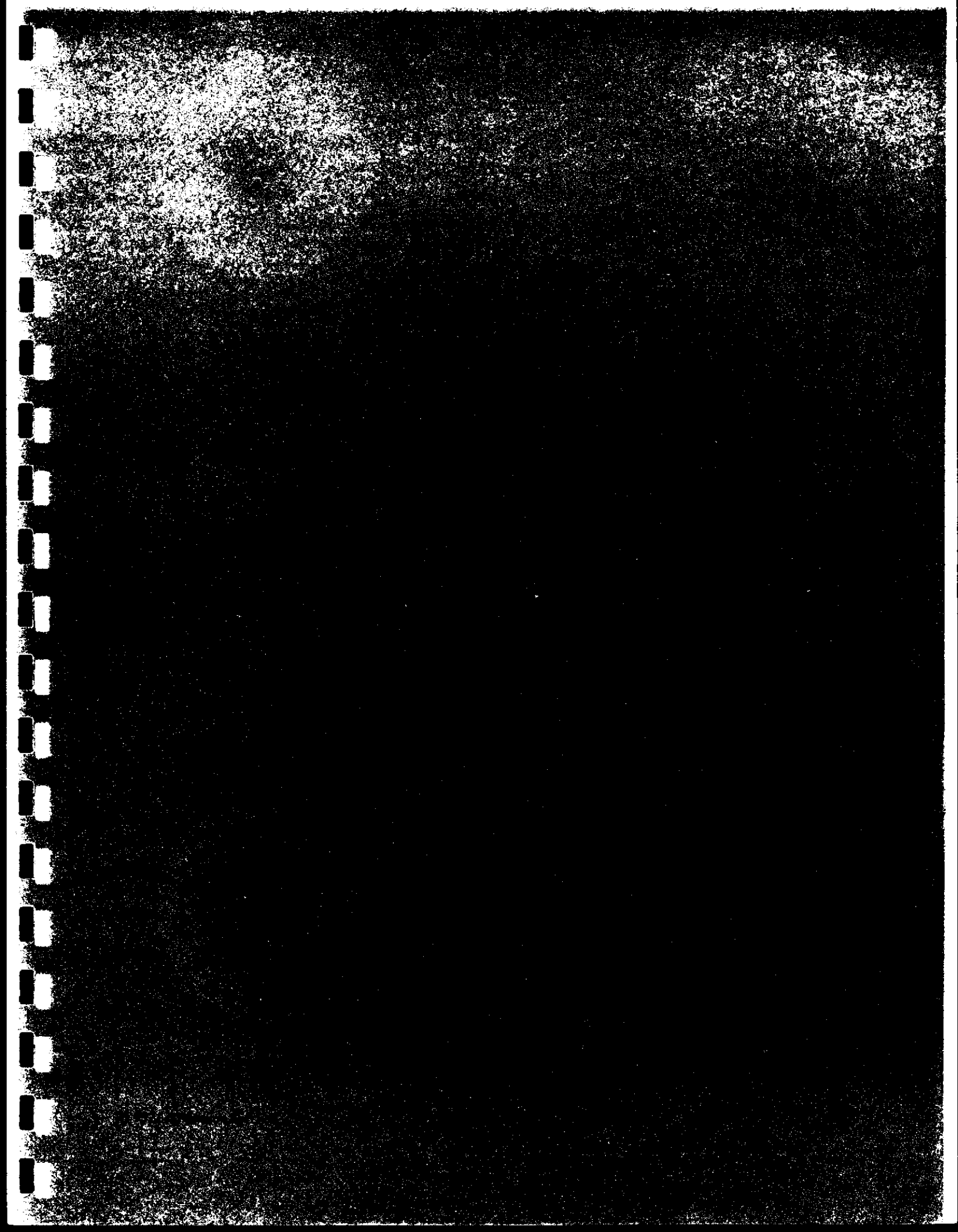
(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

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

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 17 Dec 9
Wyman Hong
Cal. Reg. Geologist # 4445

6/93



DIVERSIFIED ANALYTICAL SERVICES, INC.

Environmental Laboratory

3732 W. Century Boulevard, Building 1, Unit 3, Inglewood, CA 90303 • (310) 671-5346 • Fax: (310) 671-7216 • (800) 862-9310

L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 418.1 for Total Recoverable Petroleum Hydrocarbons (TRPH)

Date Received: December 30, 1992
Date Analyzed: December 31, 1992
Date Reported: January 1, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S
All Results in ppm (mg/kg) Unless Otherwise Specified

Lab ID Number	Client ID Number	Depth (feet)	Component Name	Result (mg/kg)	Detection Limit
12-08612	B3	3	TRPH	ND	5.0
12-08613	B3	8	TRPH	422	5.0
12-08614	B3	13	TRPH	ND	5.0
12-08615	B2	3	TRPH	ND	5.0
12-08616	B2	8	TRPH	ND	5.0
12-08617	B2	13	TRPH	ND	5.0
12-08618	B4	3	TRPH	23.2	5.0
12-08619	B4	8	TRPH	ND	5.0
12-08620	B4	13	TRPH	ND	5.0
12-08621	B4-W1	None Given	TRPH	18.2 mg/L	1.0
12-08622	B1	3	TRPH	ND	5.0
12-08623	B1	8	TRPH	6960	5.0
12-08624	B1	13	TRPH	ND	5.0

ND = Not Detected

Diversified Analytical Services currently maintains Certificate Number 1201 under the California State Department of Health Services Environmental Laboratory Accreditation Program.

Respectfully Submitted,

Shawn A. Coleman,
Laboratory Director/
Analytical Chemist

DIVERSIFIED ANALYTICAL SERVICES, INC.

Environmental Laboratory

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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: Modified EPA Method 8015 for TPH as Diesel

Date Received: December 30, 1992
Date Analyzed: December 31, 1992
Date Reported: January 1, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppm (mg/kg) Unless Otherwise Specified

Lab ID Number	Client ID Number	Depth (feet)	Component Name	Result (mg/kg)		Detection Limit
12-08612	B3	3	TPH-Diesel	ND		1.0
12-08613	B3	8	TPH-Diesel	1470		1.0
12-08614	B3	13	TPH-Diesel	10.3		1.0
12-08615	B2	3	TPH-Diesel	3.5		1.0
12-08616	B2	8	TPH-Diesel	59.0		1.0
12-08617	B2	13	TPH-Diesel	3.8		1.0
12-08618	B4	3	TPH-Diesel	6.9		1.0
12-08619	B4	8	TPH-Diesel	37.8		1.0
12-08620	B4	13	TPH-Diesel	12.8		1.0
12-08621	B4-W1	None Given	TPH-Diesel	23.9	mg/L	1.0
12-08622	B1	3	TPH-Diesel	1.6		1.0
12-08623	B1	8	TPH-Diesel	7870		1.0
12-08624	B1	13	TPH-Diesel	32.3		1.0

ND = Not Detected

Diversified Analytical Services currently maintains Certificate Number 1201 under the California State Department of Health Services Environmental Laboratory Accreditation Program.

Respectfully Submitted,

Shawn A. Coleman,
Laboratory Director/
Analytical Chemist

DIVERSIFIED ANALYTICAL SERVICES, INC.

Environmental Laboratory

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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: Modified EPA Method 8015 for TPH as Gasoline

Date Received: December 30, 1992
Date Analyzed: December 31, 1992
Date Reported: January 1, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppm (mg/kg) Unless Otherwise Specified

Lab ID Number	Client ID Number	Depth (feet)	Component Name	Result (mg/kg)	Detection Limit
12-08612	B3	3	TPH-Gasoline	ND	1.0
12-08613	B3	8	TPH-Gasoline	562	1.0
12-08614	B3	13	TPH-Gasoline	3.7	1.0
12-08615	B2	3	TPH-Gasoline	1.2	1.0
12-08616	B2	8	TPH-Gasoline	23.0	1.0
12-08617	B2	13	TPH-Gasoline	1.5	1.0
12-08618	B4	3	TPH-Gasoline	1.3	1.0
12-08619	B4	8	TPH-Gasoline	14.5	1.0
12-08620	B4	13	TPH-Gasoline	4.3	1.0
12-08621	B4-W1	None Given	TPH-Gasoline	8.8 mg/L	1.0
12-08622	B1	3	TPH-Gasoline	ND	1.0
12-08623	B1	8	TPH-Gasoline	2900	1.0
12-08624	B1	13	TPH-Gasoline	10.4	1.0

ND = Not Detected

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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 8020 for Volatile Aromatics (BTXE)

Date Received: December 30, 1992
Date Analyzed: December 31, 1992
Date Reported: January 1, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppb (ug/kg) Unless Otherwise Specified

Constituent	12-08612 B3-3	12-08613 B3-8	12-08614 B3-13	12-08615 B2-3
Benzene	<10	<40	68	<10
Toluene	<10	1800	10	<10
Ethylbenzene	<10	2390	<10	<10
para+meta-Xylene	<10	5840	<10	<10
ortho-Xylene	<10	273	<10	<10

Constituent	12-08616 B2-8	12-08617 B2-13	12-08618 B4-3	12-08619 B4-8
Benzene	<10	<10	<10	20
Toluene	114	<10	14	52
Ethylbenzene	82	<10	<10	169
para+meta-Xylene	224	<10	22	<10
ortho-Xylene	14	<10	13	<10

Constituent	12-08620 B4-13	12-08621 B4-W1	12-08622 B1-3	12-08623 B1-8
Benzene	612	5880 ug/L	<10	12300
Toluene	16	188 ug/L	<10	76100
Ethylbenzene	31	520 ug/L	<10	24100
para+meta-Xylene	42	586 ug/L	<10	100000
ortho-Xylene	<10	<10 ug/L	<10	47900

Results continued on next page.

Constituent	12-08624 B1-13
Benzene	<10
Toluene	<10
Ethylbenzene	<10
para+meta-Xylene	32
ortho-Xylene	13

< = less than; the number following this sign is the detection limit for that specific constituent.

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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 6010 for Heavy Metals
EPA Method 3050 for Metals Digestion

Date Received: December 30, 1992
Date Analyzed: December 31, 1992
Date Reported: January 1, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppm (mg/kg) Unless Otherwise Specified

Lab ID #	12-08612	12-08613	12-08614	12-08615
Constituent	B3-3	B3-8	B3-13	B2-3
Arsenic	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	<0.5	<0.5
Chromium (total)	16.6	21.3	17.2	16.0
Lead	2.5	<1.0	<1.0	9.2
Mercury	<1.0	<1.0	<1.0	<1.0
Zinc	20.4	13.3	8.0	23.3

Lab ID #	12-08616	12-08617	12-08618	12-08619
Constituent	B2-8	B2-13	B4-3	B4-8
Arsenic	<1.0	<1.0	1.3	1.3
Cadmium	<0.5	<0.5	1.6	<0.5
Chromium (total)	24.5	32.2	18.1	41.2
Lead	<1.0	<1.0	43.7	<1.0
Mercury	<1.0	<1.0	<1.0	<1.0
Zinc	13.8	18.0	162	10.7

Lab ID #	12-08620	12-08621	12-08622	12-08623
Constituent	B4-13	B4-W1	B1-3	B1-8
Arsenic	<1.0	<0.5 mg/L	<1.0	<1.0
Cadmium	<0.5	<0.1 mg/L	<0.5	<0.5
Chromium (total)	31.4	0.1 mg/L	15.4	21.6
Lead	<1.0	<0.5 mg/L	<1.0	<1.0
Mercury	<1.0	<0.2 mg/L	<1.0	<1.0
Zinc	10.6	<0.1 mg/L	17.2	11.5

Results continued on next page.

Lab ID #	12-08624
Constituent	B4-13
Arsenic	<1.0
Cadmium	<0.5
Chromium (total)	25.3
Lead	<1.0
Mercury	<1.0
Zinc	11.8

< = less than; the number following this sign is the detection limit for that specific constituent.

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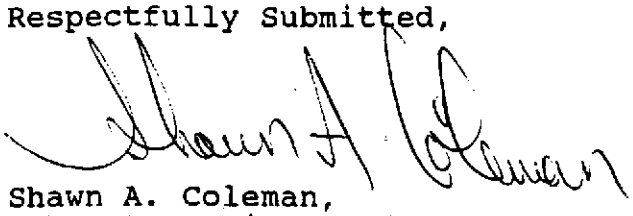
Respectfully Submitted,



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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 8240 for Volatile Compounds

Date Received: December 30, 1992
Date Analyzed: January 5 - 6, 1993
Date Reported: January 7, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppb (ug/kg) Unless Otherwise Specified

Lab ID # / Constituent	12-08612 B3-3	12-08613 B3-8	12-08614 B3-13	12-08615 B2-3
Chloromethane	<10	<100	<10	<10
Vinyl Chloride	<10	<100	<10	<10
Bromomethane	<10	<100	<10	<10
Chloroethane	<25	<250	<25	<25
Trichlorofluoromethane	< 5	< 50	< 5	< 5
1,1-Dichloroethene	< 5	< 50	< 5	< 5
Acetone	<50	<500	<50	<50
Carbon Disulfide	< 5	< 50	< 5	< 5
Methylene Chloride	<10	<100	<10	<10
trans-1,2-Dichloroethene	< 5	< 50	< 5	< 5
1,1-Dichloroethane	< 5	< 50	< 5	< 5
cis-1,2-Dichloroethene	< 5	< 50	< 5	< 5
2-Butanone (MEK)	<25	<250	<25	<25
Chloroform	< 5	< 50	< 5	< 5
1,1,1-Trichloroethane	<10	<100	<10	<10
Carbon Tetrachloride	< 5	< 50	< 5	< 5
Benzene	< 5	< 50	12	< 5
1,2-Dichloroethane	< 5	< 50	< 5	< 5
Trichloroethene	< 5	< 50	< 5	< 5
1,2-Dichloropropane	< 5	< 50	< 5	< 5
Bromodichloromethane	< 5	< 50	< 5	< 5
2-Chloroethyl Vinyl Ether	< 5	< 50	< 5	< 5
cis-1,3-Dichloropropene	< 5	< 50	< 5	< 5
2-Hexanone	<10	<100	<10	<10
Toluene	< 5	< 50	< 5	< 5
trans-1,3-Dichloropropene	< 5	< 50	< 5	< 5
1,1,2-Trichloroethane	< 5	< 50	< 5	< 5
Tetrachloroethene	< 5	< 50	< 5	< 5
4-Methyl-2-Pentanone (MIBK)	<25	<250	<25	<25
Dibromochloromethane	< 5	< 50	< 5	< 5

Results continued on next page.

dfb ID #	12-08612	12-08613	12-08614	12-08615
Constituent	B3-3	B3-8	B3-13	B2-3
Chlorobenzene	< 5	< 50	< 5	< 5
Ethybenzene	< 5	496	< 5	< 5
Meta+Para-Xylene	<10	411	<10	<10
Ortho-Xylene	<10	<100	<10	<10
Styrene	< 5	< 50	< 5	< 5
Bromoform	<10	<100	<10	<10
1,1,2,2-Tetrachloroethane	< 5	< 50	< 5	< 5
1,3-Dichlorobenzene	< 5	< 50	< 5	< 5
1,4-Dichlorobenzene	< 5	< 50	< 5	< 5
1,2-Dichlorobenzene	< 5	< 50	< 5	< 5

< = less than; the number following this sign is the detection limit for that specific constituent.

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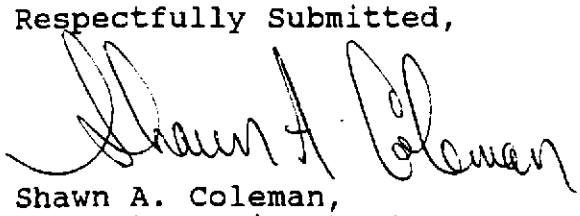
Respectfully Submitted,



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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 8240 for Volatile Compounds

Date Received: December 30, 1992
Date Analyzed: January 5 - 6, 1993
Date Reported: January 7, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppb (ug/kg) Unless Otherwise Specified

Lab ID # / Constituent	12-08616 B2-8	12-08617 B2-13	12-08618 B4-3	12-08619 B4-8
Chloromethane	<10	<10	<10	<10
Vinyl Chloride	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10
Chloroethane	<25	<25	<25	<25
Trichlorofluoromethane	< 5	< 5	< 5	< 5
1,1-Dichloroethene	< 5	< 5	< 5	< 5
Acetone	<50	<50	<50	<50
Carbon Disulfide	< 5	< 5	< 5	< 5
Methylene Chloride	<10	<10	<10	<10
trans-1,2-Dichloroethene	< 5	< 5	< 5	< 5
1,1-Dichloroethane	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	< 5	< 5	< 5	< 5
2-Butanone (MEK)	<25	<25	<25	<25
Chloroform	< 5	< 5	< 5	< 5
1,1,1-Trichloroethane	<10	<10	<10	<10
Carbon Tetrachloride	< 5	< 5	< 5	< 5
Benzene	< 5	< 5	< 5	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 5
Trichloroethene	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 5
Bromodichloromethane	< 5	< 5	< 5	< 5
2-Chloroethyl Vinyl Ether	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	< 5	< 5	< 5	< 5
2-Hexanone	<10	<10	<10	<10
Toluene	< 5	< 5	7	< 5
trans-1,3-Dichloropropene	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5
Tetrachloroethene	< 5	< 5	< 5	< 5
4-Methyl-2-Pentanone (MIBK)	<25	<25	<25	<25
Dibromochloromethane	< 5	< 5	< 5	< 5

Results continued on next page.

Lab ID #	12-08616	12-08617	12-08618	12-08619
Constituent	B2-8	B2-13	B4-3	B4-8
Chlorobenzene	< 5	< 5	< 5	< 5
Ethybenzene	11	< 5	< 5	9
Meta+Para-Xylene	18	<10	<10	<10
Ortho-Xylene	<10	<10	<10	<10
Styrene	< 5	< 5	< 5	< 5
Bromoform	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5
1,3-Dichlorobenzene	< 5	< 5	< 5	< 5
1,4-Dichlorobenzene	< 5	< 5	< 5	< 5
1,2-Dichlorobenzene	< 5	< 5	< 5	< 5

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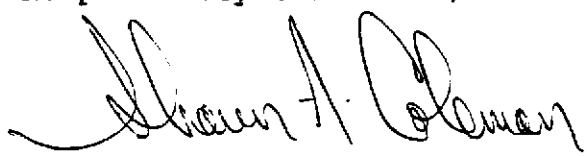

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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 8240 for Volatile Compounds

Date Received: December 30, 1992
Date Analyzed: January 5 - 6, 1993
Date Reported: January 7, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppb (ug/kg) Unless Otherwise Specified

Lab ID # / Constituent	12-08620 B4-13	12-08621 B4-W1	12-08622 B1-3	12-08623 B1-8
Chloromethane	<10	<100ug/L	<10	<1000
Vinyl Chloride	<10	<100ug/L	<10	<1000
Bromomethane	<10	<100ug/L	<10	<1000
Chloroethane	<25	<250ug/L	<25	<2500
Trichlorofluoromethane	< 5	< 50ug/L	< 5	< 500
1,1-Dichloroethene	< 5	< 50ug/L	< 5	< 500
Acetone	<50	<500ug/L	<50	<5000
Carbon Disulfide	< 5	< 50ug/L	< 5	< 500
Methylene Chloride	<10	<100ug/L	<10	<1000
trans-1,2-Dichloroethene	< 5	< 50ug/L	< 5	< 500
1,1-Dichloroethane	< 5	< 50ug/L	< 5	< 500
cis-1,2-Dichloroethene	< 5	< 50ug/L	< 5	< 500
2-Butanone (MEK)	<25	<250ug/L	<25	<2500
Chloroform	< 5	< 50ug/L	< 5	< 500
1,1,1-Trichloroethane	<10	<100ug/L	<10	<1000
Carbon Tetrachloride	< 5	< 50ug/L	< 5	< 500
Benzene	46	5500ug/L	< 5	7310
1,2-Dichloroethane	< 5	< 50ug/L	< 5	< 500
Trichloroethene	< 5	< 50ug/L	< 5	< 500
1,2-Dichloropropane	< 5	< 50ug/L	< 5	< 500
Bromodichloromethane	< 5	< 50ug/L	< 5	< 500
2-Chloroethyl Vinyl Ether	< 5	< 50ug/L	< 5	< 500
cis-1,3-Dichloropropene	< 5	< 50ug/L	< 5	< 500
2-Hexanone	<10	<100ug/L	<10	<1000
Toluene	<10	212ug/L	<10	90800
trans-1,3-Dichloropropene	< 5	< 50ug/L	< 5	< 500
1,1,2-Trichloroethane	< 5	< 50ug/L	< 5	< 500
Tetrachloroethene	< 5	< 50ug/L	< 5	< 500
4-Methyl-2-Pentanone (MIBK)	<25	<250ug/L	<25	<2500
Dibromochloromethane	< 5	< 50ug/L	< 5	< 500

Results continued on next page.

Lab ID #	12-08620	12-08621	12-08622	12-08623
Constituent	B4-13	B4-W1	B1-3	B1-8
Chlorobenzene	< 5	< 50ug/L	< 5	< 500
Ethybenzene	< 5	660ug/L	< 5	50900
Meta+Para-Xylene	<10	612ug/L	<10	201000
Ortho-Xylene	<10	<100ug/L	<10	78900
Styrene	< 5	< 50ug/L	< 5	< 500
Bromoform	<10	<100ug/L	<10	<1000
1,1,2,2-Tetrachloroethane	< 5	< 50ug/L	< 5	< 500
1,3-Dichlorobenzene	< 5	< 50ug/L	< 5	< 500
1,4-Dichlorobenzene	< 5	< 50ug/L	< 5	< 500
1,2-Dichlorobenzene	< 5	< 50ug/L	< 5	< 500

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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 8240 for Volatile Compounds

Date Received: December 30, 1992
Date Analyzed: January 5 - 6, 1993
Date Reported: January 7, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppb (ug/kg) Unless Otherwise Specified

Lab ID #	12-08624
Constituent	B1-13
Chloromethane	<10
Vinyl Chloride	<10
Bromomethane	<10
Chloroethane	<25
Trichlorofluoromethane	< 5
1,1-Dichloroethene	< 5
Acetone	<50
Carbon Disulfide	< 5
Methylene Chloride	<10
trans-1,2-Dichloroethene	< 5
1,1-Dichloroethane	< 5
cis-1,2-Dichloroethene	< 5
2-Butanone (MEK)	<25
Chloroform	< 5
1,1,1-Trichloroethane	<10
Carbon Tetrachloride	< 5
Benzene	< 5
1,2-Dichloroethane	< 5
Trichloroethene	< 5
1,2-Dichloropropane	< 5
Bromodichloromethane	< 5
2-Chloroethyl Vinyl Ether	< 5
cis-1,3-Dichloropropene	< 5
2-Hexanone	<10
Toluene	<10
trans-1,3-Dichloropropene	< 5
1,1,2-Trichloroethane	< 5
Tetrachloroethene	< 5
4-Methyl-2-Pentanone (MIBK)	<25
Dibromochloromethane	< 5

Results continued on next page.

Lab ID #	12-08624
Constituent	B1-13
Chlorobenzene	< 5
Ethybenzene	< 5
Meta+Para-Xylene	<10
Ortho-Xylene	<10
Styrene	< 5
Bromoform	<10
1,1,2,2-Tetrachloroethane	< 5
1,3-Dichlorobenzene	< 5
1,4-Dichlorobenzene	< 5
1,2-Dichlorobenzene	< 5

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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 8270 for Semivolatile Compounds

Date Received: December 30, 1992
Date Analyzed: January 7 - 8, 1993
Date Reported: January 11, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppb (ug/kg) Unless Otherwise Specified

Lab ID # / Constituent	12-08612 B3-3	12-08613 B3-8	12-08614 B3-13	12-08615 B2-3
N-Nitrosodimethylamine	<333	<8325	<333	<333
Phenol	<333	<8325	<333	<333
Bis(2-Chloroethyl)Ether	<333	<8325	<333	<333
2-Chlorophenol	<333	<8325	<333	<333
1,3-Dichlorobenzene	<400	<10000	<400	<400
1,4-Dichlorobenzene	<400	<10000	<400	<400
Benzyl Alcohol	<666	<16650	<666	<666
1,2-Dichlorobenzene	<400	<10000	<400	<400
2-Methylphenol	<333	<8325	<333	<333
Bis(2-Chloroisopropyl)Ether	<333	<8325	<333	<333
N-Nitrosodi-N-Propylamine	<333	<8325	<333	<333
4-Methylphenol	<333	<8325	<333	<333
Hexachloroethane	<333	<8325	<333	<333
Nitrobenzene	<333	<8325	<333	<333
Isophorone	<333	<8325	<333	<333
2-Nitrophenol	<333	<8325	<333	<333
2,4-Dimethylphenol	<333	<8325	<333	<333
Bis(2-Chloroethoxy)Methane	<333	<8325	<333	<333
2,4-Dichlorophenol	<333	<8325	<333	<333
Benzoic Acid	<1665	<41625	<1665	<1665
1,2,4-Trichlorobenzene	<333	<8325	<333	<333
Naphthalene	<333	<8325	<333	<333
4-Chloroanaline	<666	<16650	<666	<666
Hexachlorobutadiene	<333	<8325	<333	<333
4-Chloro-3-Methylphenol	<666	<16650	<666	<666
2-Methylnaphthalene	<333	<8325	<333	<333
Hexachlorocyclopentadiene	<666	<16650	<666	<666
2,4,6-Trichlorophenol	<333	<8325	<333	<333
2,4,5-Trichlorophenol	<333	<8325	<333	<333
2-Chloronaphthalene	<333	<8325	<333	<333
2-Nitroanaline	<1665	<41625	<1665	<1665
Dimethyl Phthalate	<333	<8325	<333	<333
Acenaphthylene	<333	<8325	<333	<333
2,6-Dinitrotoluene	<333	<8325	<333	<333

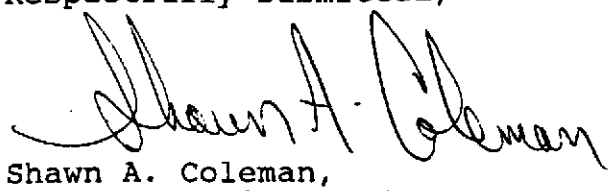
Results continued on next page.

Lab ID #	12-08612	12-08613	12-08614	12-08615
Constituent	B3-3	B3-8	B3-13	B2-3
3-Nitroanaline	<1665	<41625	<1665	<1665
Acenaphthene	<333	<8325	<333	<333
2,4-Dinitrophenol	<1665	<41625	<1665	<1665
Dibenzofuran	<333	<8325	<333	<333
4-Nitrophenol	<1665	<41625	<1665	<1665
2,4-Dinitrotoluene	<333	<8325	<333	<333
Fluorene	<333	<8325	<333	<333
Diethyl Phthalate	<333	<8325	<333	<333
4-Chlorophenyl-Phenyl Ether	<333	<8325	<333	<333
4-Nitroanaline	<1665	<41625	<1665	<1665
4,6-Dinitro-2-Methylphenol	<1665	<41625	<1665	<1665
N-Nitrosodiphenylamine	<333	<8325	<333	<333
4-Bromophenyl Phenyl Ether	<333	<8325	<333	<333
Hexachlorobenzene	<333	<8325	<333	<333
Pentachlorophenol	<1665	<41625	<1665	<1665
Phenanthrene	<333	<8325	<333	<333
Anthracene	<333	<8325	<333	<333
Di-N-Butyl Phthalate	<333	<8325	<333	<333
Fluoranthene	<333	<8325	<333	<333
Benzidene	<1665	<41625	<1665	<1665
Pyrene	<333	10526	<333	<333
Butyl Benzyl Phthalate	<333	<8325	<333	<333
Benzo(A)Anthracene	<333	13062	<333	<333
3,3'-Dichlorobenzidine	<666	<16650	<666	<666
Chrysene	<333	17962	<333	<333
Bis(2-Ethylhexyl)Phthalate	<333	<8325	<333	<333
Di-N-Octyl Phthalate	<333	<8325	<333	<333
Benzo(B)Fluoranthene	<333	26697	<333	<333
Benzo(K)Fluoranthene	<333	11961	<333	<333
Benzo(A)Pyrene	<333	22106	<333	<333
Indeno(1,2,3-CD)Pyrene	<333	27566	<333	<333
Dibenzo(A,H)Anthracene	<333	8338	<333	<333
Benzo(G,H,I)Perylene	<333	31774	<333	<333

< = less than; the number following this sign is the detection limit for that specific constituent.

Diversified Analytical Services currently maintains Certificate Number 1201 under the California State Department of Health Services Environmental Laboratory Accreditation Program.

Respectfully Submitted,



Shawn A. Coleman,
Laboratory Director/
Analytical Chemist

DIVERSIFIED ANALYTICAL SERVICES, INC.

Environmental Laboratory

3732 W. Century Boulevard, Building 1, Unit 3, Inglewood, CA 90303 • (310) 671-5346 • Fax: (310) 671-7216 • (800) 862-9310

L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 8270 for Semivolatile Compounds

Date Received: December 30, 1992
Date Analyzed: January 7 - 8, 1993
Date Reported: January 11, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppb (ug/kg) Unless Otherwise Specified

Lab ID # / Constituent	12-08616 B2-8	12-08617 B2-13	12-08618 B4-3	12-08619 B4-8
N-Nitrosodimethylamine	<333	<333	<333	<333
Phenol	<333	<333	<333	<333
Bis(2-Chloroethyl)Ether	<333	<333	<333	<333
2-Chlorophenol	<333	<333	<333	<333
1,3-Dichlorobenzene	<400	<400	<400	<400
1,4-Dichlorobenzene	<400	<400	<400	<400
Benzyl Alcohol	<666	<666	<666	<666
1,2-Dichlorobenzene	<400	<400	<400	<400
2-Methylphenol	<333	<333	<333	<333
Bis(2-Chloroisopropyl)Ether	<333	<333	<333	<333
N-Nitrosodi-N-Propylamine	<333	<333	<333	<333
4-Methylphenol	<333	<333	<333	<333
Hexachloroethane	<333	<333	<333	<333
Nitrobenzene	<333	<333	<333	<333
Isophorone	<333	<333	<333	<333
2-Nitrophenol	<333	<333	<333	<333
2,4-Dimethylphenol	<333	<333	<333	<333
Bis(2-Chloroethoxy)Methane	<333	<333	<333	<333
2,4-Dichlorophenol	<333	<333	<333	<333
Benzoic Acid	<1665	<1665	<1665	<1665
1,2,4-Trichlorobenzene	<333	<333	<333	<333
Naphthalene	<333	<333	<333	<333
4-Chloroanaline	<666	<666	<666	<666
Hexachlorobutadiene	<333	<333	<333	<333
4-Chloro-3-Methylphenol	<666	<666	<666	<666
2-Methylnaphthalene	<333	<333	<333	<333
Hexachlorocyclopentadiene	<666	<666	<666	<666
2,4,6-Trichlorophenol	<333	<333	<333	<333
2,4,5-Trichlorophenol	<333	<333	<333	<333
2-Chloronaphthalene	<333	<333	<333	<333
2-Nitroanaline	<1665	<1665	<1665	<1665
Dimethyl Phthalate	<333	<333	<333	<333
Acenaphthylene	<333	<333	<333	<333
2,6-Dinitrotoluene	<333	<333	<333	<333

Results continued on next page.

Lab ID # / Constituent	12-08616 B2-8	12-08617 B2-13	12-08618 B4-3	12-08619 B4-8
3-Nitroanaline	<1665	<1665	<1665	<1665
Acenaphthene	<333	<333	<333	<333
2,4-Dinitrophenol	<1665	<1665	<1665	<1665
Dibenzofuran	<333	<333	<333	<333
4-Nitrophenol	<1665	<1665	<1665	<1665
2,4-Dinitrotoluene	<333	<333	<333	<333
Fluorene	<333	<333	<333	<333
Diethyl Phthalate	<333	<333	<333	<333
4-Chlorophenyl-Phenyl Ether	<333	<333	<333	<333
4-Nitroanaline	<1665	<1665	<1665	<1665
4,6-Dinitro-2-Methylphenol	<1665	<1665	<1665	<1665
N-Nitrosodiphenylamine	<333	<333	<333	<333
4-Bromophenyl Phenyl Ether	<333	<333	<333	<333
Hexachlorobenzene	<333	<333	<333	<333
Pentachlorophenol	<1665	<1665	<1665	<1665
Phenanthrene	<333	<333	<333	<333
Anthracene	<333	<333	<333	<333
Di-N-Butyl Phthalate	<333	<333	<333	<333
Fluoranthene	<333	<333	<333	<333
Benzidene	<1665	<1665	<1665	<1665
Pyrene	<333	<333	<333	<333
Butyl Benzyl Phthalate	<333	<333	<333	<333
Benzo(A)Anthracene	<333	<333	<333	<333
3,3'-Dichlorobenzidine	<666	<666	<666	<666
Chrysene	<333	<333	<333	<333
Bis(2-Ethylhexyl)Phthalate	<333	<333	<333	<333
Di-N-Octyl Phthalate	<333	<333	<333	<333
Benzo(B)Fluoranthene	<333	<333	<333	<333
Benzo(K)Fluoranthene	<333	<333	<333	<333
Benzo(A)Pyrene	<333	<333	<333	<333
Indeno(1,2,3-CD)Pyrene	<333	<333	<333	<333
Dibenzo(A,H)Anthracene	<333	<333	<333	<333
Benzo(G,H,I)Perylene	<333	<333	<333	<333

< = less than; the number following this sign is the detection limit for that specific constituent.

Diversified Analytical Services currently maintains Certificate Number 1201 under the California State Department of Health Services Environmental Laboratory Accreditation Program.

Respectfully Submitted,

Shawn A. Coleman,
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Analytical Chemist

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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 8270 for Semivolatile Compounds

Date Received: December 30, 1992
Date Analyzed: January 7 - 8, 1993
Date Reported: January 11, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppb (ug/kg) Unless Otherwise Specified

Lab ID # / Constituent	12-08620 B4-13	12-08621 B4-W1	12-08622 B1-3	12-08623 B1-8
N-Nitrosodimethylamine	<333	<100ug/L	<333	<1665
Phenol	<333	<100ug/L	<333	<1665
Bis(2-Chloroethyl)Ether	<333	<100ug/L	<333	<1665
2-Chlorophenol	<333	<100ug/L	<333	<1665
1,3-Dichlorobenzene	<400	<100ug/L	<400	<2000
1,4-Dichlorobenzene	<400	<100ug/L	<400	<2000
Benzyl Alcohol	<666	<150ug/L	<666	<3330
1,2-Dichlorobenzene	<400	<100ug/L	<400	<2000
2-Methylphenol	<333	<100ug/L	<333	<1665
Bis(2-Chloroisopropyl)Ether	<333	<100ug/L	<333	<1665
N-Nitrosodi-N-Propylamine	<333	<100ug/L	<333	<1665
4-Methylphenol	<333	<100ug/L	<333	<1665
Hexachloroethane	<333	<100ug/L	<333	<1665
Nitrobenzene	<333	<100ug/L	<333	<1665
Isophorone	<333	<100ug/L	<333	<1665
2-Nitrophenol	<333	<100ug/L	<333	<1665
2,4-Dimethylphenol	<333	<100ug/L	<333	<1665
Bis(2-Chloroethoxy)Methane	<333	<100ug/L	<333	<1665
2,4-Dichlorophenol	<333	<100ug/L	<333	<1665
Benzoic Acid	<1665	<100ug/L	<1665	<8325
1,2,4-Trichlorobenzene	<333	<100ug/L	<333	<1665
Naphthalene	<333	306ug/L	<333	34229
4-Chloroanaline	<666	<100ug/L	<666	<3330
Hexachlorobutadiene	<333	<100ug/L	<333	<1665
4-Chloro-3-Methylphenol	<666	<100ug/L	<666	<3330
2-Methylnaphthalene	<333	<100ug/L	<333	34995
Hexachlorocyclopentadiene	<666	<200ug/L	<666	<3330
2,4,6-Trichlorophenol	<333	<100ug/L	<333	<1665
2,4,5-Trichlorophenol	<333	<100ug/L	<333	<1665
2-Chloronaphthalene	<333	<100ug/L	<333	<1665
2-Nitroanaline	<1665	<100ug/L	<1665	<8325
Dimethyl Phthalate	<333	<100ug/L	<333	<1665
Acenaphthylene	<333	<100ug/L	<333	<1665
2,6-Dinitrotoluene	<333	<100ug/L	<333	<1665

Results continued on next page.

Lab ID #	12-08620	12-08621	12-08622	12-08623
Constituent	B4-13	B4-W1	B1-3	B1-8
3-Nitroanaline	<1665	<100ug/L	<1665	<8325
Acenaphthene	<333	<100ug/L	<333	<1665
2,4-Dinitrophenol	<1665	<150ug/L	<1665	<8325
Dibenzofuran	<333	<100ug/L	<333	<1665
4-Nitrophenol	<1665	<100ug/L	<1665	<8325
2,4-Dinitrotoluene	<333	<100ug/L	<333	<1665
Fluorene	<333	<100ug/L	<333	<1665
Diethyl Phthalate	<333	<100ug/L	<333	<1665
4-Chlorophenyl-Phenyl Ether	<333	<100ug/L	<333	<1665
4-Nitroanaline	<1665	<100ug/L	<1665	<8325
4,6-Dinitro-2-Methylphenol	<1665	<100ug/L	<1665	<8325
N-Nitrosodiphenylamine	<333	<100ug/L	<333	<1665
4-Bromophenyl Phenyl Ether	<333	<100ug/L	<333	<1665
Hexachlorobenzene	<333	<100ug/L	<333	<1665
Pentachlorophenol	<1665	<200ug/L	<1665	<8325
Phenanthrene	<333	<100ug/L	<333	<1665
Anthracene	<333	<100ug/L	<333	<1665
Di-N-Butyl Phthalate	<333	<100ug/L	<333	<1665
Fluoranthene	<333	<100ug/L	<333	<1665
Benzidene	<1665	<100ug/L	<1665	<8325
Pyrene	<333	<100ug/L	<333	<1665
Butyl Benzyl Phthalate	<333	<100ug/L	<333	<1665
Benzo(A)Anthracene	<333	<100ug/L	<333	<1665
3,3'-Dichlorobenzidine	<666	<100ug/L	<666	<3330
Chrysene	<333	<100ug/L	<333	<1665
Bis(2-Ethylhexyl)Phthalate	<333	<100ug/L	<333	<1665
Di-N-Octyl Phthalate	<333	<100ug/L	<333	<1665
Benzo(B)Fluoranthene	<333	<100ug/L	<333	<1665
Benzo(K)Fluoranthene	<333	<100ug/L	<333	<1665
Benzo(A)Pyrene	<333	<100ug/L	<333	<1665
Indeno(1,2,3-CD)Pyrene	<333	<100ug/L	<333	<1665
Dibenzo(A,H)Anthracene	<333	<100ug/L	<333	<1665
Benzo(G,H,I)Perylene	<333	<100ug/L	<333	<1665

< = less than; the number following this sign is the detection limit for that specific constituent.

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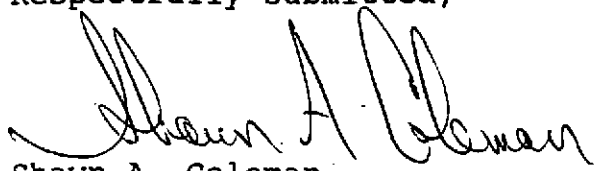
Respectfully Submitted,



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L A B O R A T O R Y R E P O R T

Reference: Tetra Tech, San Francisco - Project Number TC9321 Soil Samples Collected From Kelly's Truck Repair in Oakland on 12/29/92

Test Methods: EPA Method 8270 for Semivolatile Compounds

Date Received: December 30, 1992
Date Analyzed: January 7 - 8, 1993
Date Reported: January 11, 1993

Note: See attached documents for further information.

A N A L Y T I C A L R E S U L T S

All Results in ppb (ug/kg) Unless Otherwise Specified

Lab ID #	12-08624
Constituent	B1-13
N-Nitrosodimethylamine	<333
Phenol	<333
Bis(2-Chloroethyl)Ether	<333
2-Chlorophenol	<333
1,3-Dichlorobenzene	<400
1,4-Dichlorobenzene	<400
Benzyl Alcohol	<666
1,2-Dichlorobenzene	<400
2-Methylphenol	<333
Bis(2-Chloroisopropyl)Ether	<333
N-Nitrosodi-N-Propylamine	<333
4-Methylphenol	<333
Hexachloroethane	<333
Nitrobenzene	<333
Isophorone	<333
2-Nitrophenol	<333
2,4-Dimethylphenol	<333
Bis(2-Chloroethoxy)Methane	<333
2,4-Dichlorophenol	<333
Benzoic Acid	<1665
1,2,4-Trichlorobenzene	<333
Naphthalene	<333
4-Chloroanaline	<666
Hexachlorobutadiene	<333
4-Chloro-3-Methylphenol	<666
2-Methylnaphthalene	<333
Hexachlorocyclopentadiene	<666
2,4,6-Trichlorophenol	<333
2,4,5-Trichlorophenol	<333
2-Chloronaphthalene	<333
2-Nitroanaline	<1665
Dimethyl Phthalate	<333
Acenaphthylene	<333
2,6-Dinitrotoluene	<333

Results continued on next page.

Lab ID #	12-08624
Constituent	B1-13
3-Nitroanaline	<1665
Acenaphthene	<333
2,4-Dinitrophenol	<1665
Dibenzofuran	<333
4-Nitrophenol	<1665
2,4-Dinitrotoluene	<333
Fluorene	<333
Diethyl Phthalate	<333
4-Chlorophenyl-Phenyl Ether	<333
4-Nitroanaline	<1665
4,6-Dinitro-2-Methylphenol	<1665
N-Nitrosodiphenylamine	<333
4-Bromophenyl Phenyl Ether	<333
Hexachlorobenzene	<333
Pentachlorophenol	<1665
Phenanthrene	<333
Anthracene	<333
Di-N-Butyl Phthalate	<333
Fluoranthene	<333
Benzidene	<1665
Pyrene	<333
Butyl Benzyl Phthalate	<333
Benzo(A)Anthracene	<333
3,3'-Dichlorobenzidine	<666
Chrysene	<333
Bis(2-Ethylhexyl)Phthalate	<333
Di-N-Octyl Phthalate	<333
Benzo(B)Fluoranthene	<333
Benzo(K)Fluoranthene	<333
Benzo(A)Pyrene	<333
Indeno(1,2,3-CD)Pyrene	<333
Dibenzo(A,H)Anthracene	<333
Benzo(G,H,I)Perylene	<333

< = less than; the number following this sign is the detection limit for that specific constituent.

Diversified Analytical Services currently maintains Certificate Number 1201 under the California State Department of Health Services Environmental Laboratory Accreditation Program.

Respectfully Submitted,

Shawn A. Coleman,
Laboratory Director/
Analytical Chemist

To: Diversified Analytical Services
3732 W. Century Blvd., Unit 3
Inglewood, Ca. 90303
Tel: (310) 671-5346 Shawn Coleman

TETRA TECH
CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

CLIENT:	PROJECT MANAGER:	PROJ. NO.:
TETRA TECH SAN FRANCISCO	Mike Wopat	TC-7321

PROJECT NAME / LOCATION: Kelly's Truck Repair, Oakland, CA

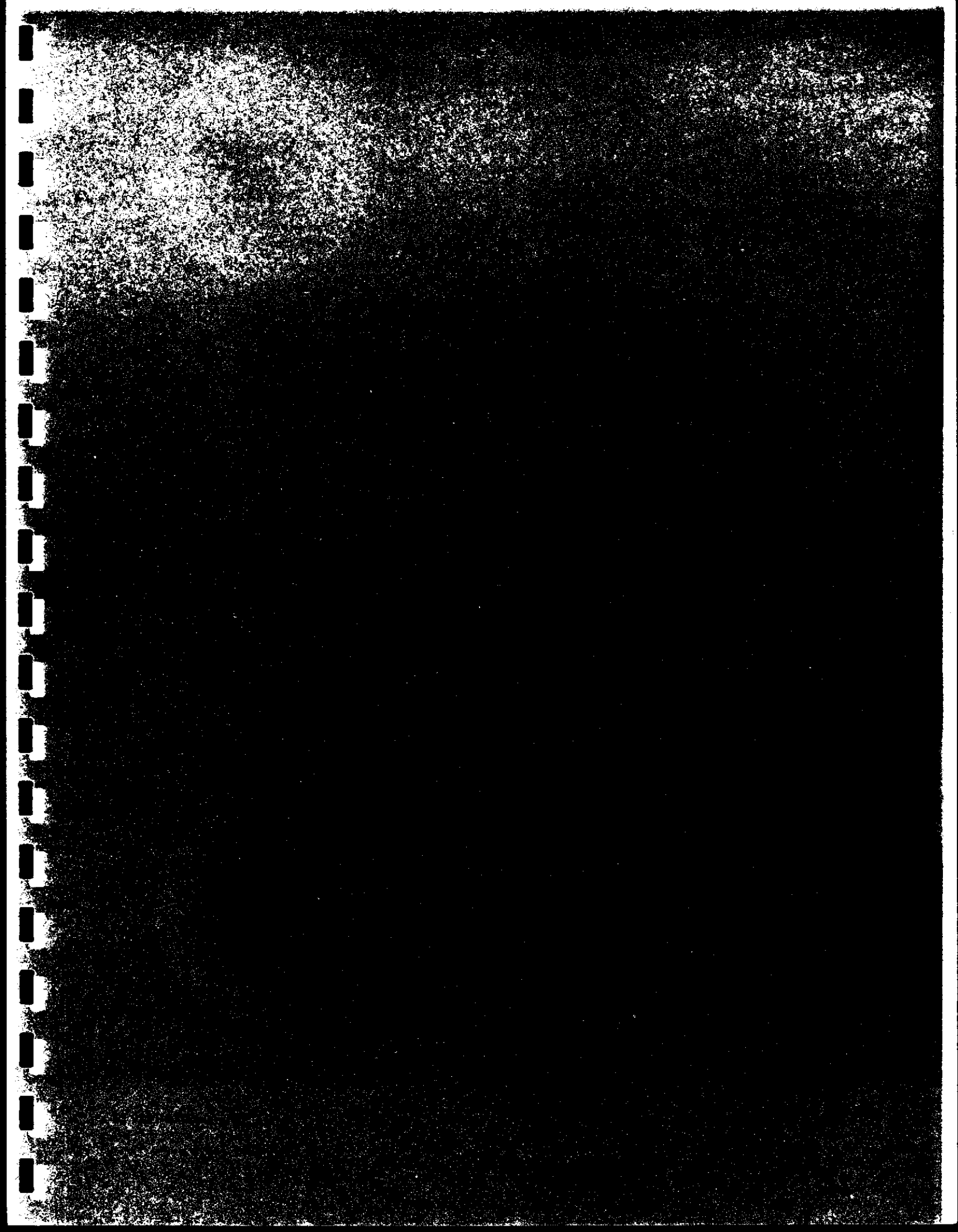
SAMPLER(S): (SIGNATURE) KEVIN McNAMARA

SAMPLE ID	DATE	TIME	MATRIX	SAMPLE LOCATION	NO. OF CONTAINERS	TPH-G (8015 mod)	TPH-D (8015 mod)	BTEX (8240)	TRPH (418.1)	Volatile Org. (8240)	Semi-vol. org. (8270)	As, Cd, Cr, Pb, Hg + Zn (6010)	TURNAROUND TIME	REMARKS
B3-3	12/24	0930	SOIL	BORING 3	1	✓	✓	✓	✓	✓	✓	✓	48hr	All samples not analyzed
B3-8		0955		"	1	✓	✓	✓	✓	✓	✓	✓		for TPH-G, TPH-D,
B3-13		1020		"	1	✓	✓	✓	✓	✓	✓	✓		BTEX, TRPH, Volatile
B2-3		1055		BORING 2	1	✓	✓	✓	✓	✓	✓	✓		organics, semi-volatile
B2-8		1110		"	1	✓	✓	✓	✓	✓	✓	✓		organics and six
B2-13		1125		"	1	✓	✓	✓	✓	✓	✓	✓		metals; As, Cd, Cr,
B4-3		1330		BORING 4	1	✓	✓	✓	✓	✓	✓	✓		Pb, Hg, and Zn.
B4-8		1340		"	1	✓	✓	✓	✓	✓	✓	✓		
B4-13		1345	↓	"	1	✓	✓	✓	✓	✓	✓	✓		48 hr turnaround Time
B4-W		1430	WATER	" (GROUND WATER)	8	✓	✓	✓	✓	✓	✓	✓		has especially applies
B1-3		1525	SOIL	BORING 1	1	✓	✓	✓	✓	✓	✓	✓		the 8270's, because
B1-8		1540		"	1	✓	✓	✓	✓	✓	✓	✓		of the 7 day holding
B1-13	↓	1555	↓	"	1	✓	✓	✓	✓	✓	✓	✓		Time see below
														NOTE: FILTER GROUND WATER
														BEFORE METALS ANALYSIS.

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
Kevin McNamara	12/24/96 1600				
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME		
		Mark Coleman	12/31/96 9:46		

REMARKS Review 8270 Data as it comes out. If any semi-vol. organic is ≥10x its STLC limit, do the WET procedure; if >20x its TCLP limit, do TCLP extraction. All other data will be reviewed by Tetra Tech.

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO COORDINATOR FIELD FILES



SITE TYPE | SITE ID: BORE | B-

FIELD LOG OF BORING

SHEET 1 OF 1

PROJECT NAME AND LOCATION: KELLY'S TRUCK REPAIR	PROJECT NUMBER: TC-9321-02	ELEVATION AND DATUM:	
DRILLING COMPANY: SOILS EXPLORATION SERVICES	DRILLER: SCOTT	DATE AND TIME STARTED: 12/29/92 1510	DATE AND TIME COMPLETED: 12/29/92 1600
DRILLING EQUIPMENT: METHOD: ACCESS RIG, HSA		COMPLETION DEPTH: 13.5	TOTAL NO. OF SAMPLES: 3
SIZE AND TYPE OF BIT: 7"		NO. OF SAMPLES: JAR: SS:	BRITE: PITCHER:
DRILLING FLUID:		WATER LEVEL: FIRST 9.0' bgs	AFTER ____ HOURS
SAMPLER: 2" TYPE CA MOD. SPLIT SPOON DRIVING WT. 140 lbs DROP		HYDROGEOLOGIST/DATE: KEVIN McNAMARA	CHECKED BY/DATE:

DEPTH (FEET)	SAMPLES: TYPE AND NUMBER	SAMPLES: INTERVAL	SAMPLES: RECOVERY	SAMPLES: BLOW COUNT	DESCRIPTION	USCS SYMBOL	ESTIMATED PERCENT OF: GR	SA	SI	CL	MOISTURE	CONSISTENCY	COLOR	COMMENTS
0			—		5" CONCRETE AT SURFACE									
1														
2				4										
3				7	LIGHT TO MEDIUM GRAY FINE									1525 N.SAM
	B1-3			7	TO VERY COARSE GRAINED	SW	20	70	10	TR				
4					SAND (SW), WELL GRADED,									
					LOOSE, "FILL MATERIAL"									
5					COMMON PEBBLE SIZE									
					FRAGMENTS.									
6														
7														
				21										
8				26	BROWN MEDIUM TO FINE-									
	B1-8			32	DOMINANTLY FINE GRAINED	SP	TR	75	20	5				15:40 42 ppm
9			▽		SAND (SP), MEDIUM DENSE, MOIST,									
					ABUNDANT GRAY COLORED LENSES,									
10					MODERATE PRODUCT ODOR.									
					NOTE: GROUNDWATER ENCOUNTERED									
11					AT 9.0' bgs.									
12														
				18										
13				25	MEDIUM BROWN SILTY AND									
	B1-13			19	CLAYEY SANDS, SATURATED,	SM	0	60	25	15				1555 1.5 ppm
14					MEDIUM DENSE, COMMON GRAY									NOTE: PLUG BACK
					COLORED LENSES.									BORING WITH PORT-
15														LAND CEMENT.

SITE TYPE | SITE ID | BORE B-2 | SHEET 1 OF 1

FIELD LOG OF BORING

PROJECT NAME AND LOCATION: KELLY'S TRUCK REPAIR	PROJECT NUMBER: TC-9321-02	ELEVATION AND DATUM:	
DRILLING COMPANY: SOILS EXPLORATION SERVICES	DRILLER: SCOTT	DATE AND TIME STARTED: 12/29/92, 1030	DATE AND TIME COMPLETED: 12/29/92, 1145
DRILLING EQUIPMENT: METHOD: ACCESS RIG, HSA		COMPLETION DEPTH:	TOTAL NO. OF SAMPLES: 3
SIZE AND TYPE OF BIT: 7"		NO. OF SAMPLES: JAR: BB:	SKIVE: PITCHER:
DRILLING FLUID:		WATER LEVEL: FIRST:	AFTER ____ HOURS
SAMPLER 2" I.D. CA MOD. SPLIT SPOON DRIVING WT. 140 LBS DROP		HYDROGEOLOGIST/DATE: KEVIN MCNAMARA	CHECKED BY/DATE:

DEPTH (FEET)	SAMPLES: TYPE AND NUMBER	SAMPLES: INTERVAL	SAMPLES: RECOVERED	SAMPLES: BLOW COUNT	DESCRIPTION	USCS SYMBOL	ESTIMATED PERCENT OF: GR	SA	SI	CL	MOISTURE	CONSISTENCY	COLOR	COMMENTS
0			—		3" OF CONCRETE AT SURFACE									
1														
2		1		3										
		1		4										
3	B2-3	1		5	DARK BROWN FINE GRAINED	SP	5	85	10	TR				0 PPM 1055
					SAND (SP), MOIST LOOSE,									
4					SUBANGULAR TO SUBROUNDED									
					GRAINS, TRACE TO 5% GRAVEL									
5														
6														
7		1		16										
		1		22	GRAYISH BROWN FINE TO									
8	B2-8	1	▼	40	MEDIUM GRAINED SAND MOIST	SP	TR	80	20	TR				0.5 PPM 11:10
					DENSE SUBANGULAR TO SUB-									
9					ROUNDED GRAINS, COMMON SILT									
					MATRIX. NOTE: GROUNDWATER									
10					ENCOUNTERED AT 8.75' BGS									
11														
12		1		13										
		1		13										
13	B2-13	1		15	GRAY SILTLY SAND (SM),	SM	TR	70	30	TR				0 PPM 11:25
					SATURATED MEDIUM DENSE,									
14					WITH SOME MOTTLING.									
					TOTAL DEPTH = 13.5' BGS									
15														

FIELD LOG OF BORING

SITE TYPE / SITE ID: BORE B-3 — SHEET 1 OF 1

PROJECT NAME AND LOCATION: Kelly's Truck Repair	PROJECT NUMBER: TC-9321-02	ELEVATION AND DATUM:	
DRILLING COMPANY: Soils Exploration Services	DRILLER:	DATE AND TIME STARTED: 12/29/92, 0920	DATE AND TIME COMPLETED: 12/29/92, 1020
DRILLING EQUIPMENT: METHOD: Access Rig, HSA		COMPLETION DEPTH:	TOTAL NO. OF SAMPLES: 3
SIZE AND TYPE OF BIT: 7"		NO. OF SAMPLES:	JAR / SS / SLEEVE / PITCHER
DRILLING FLUID:		WATER LEVEL: FIRST 8.5'	AFTER ____ HOURS
SAMPLER: TYPE: CA Mod. Split Spoon; DRIVING WT. 140 lbs; DROP		HYDROGEOLOGIST/DATE: Kevin McNamara	CHECKED BY/DATE

DEPTH IN FEET	SAMPLES: TYPE AND NUMBER	INTERVAL	RECOVERY	BLOW COUNT	DESCRIPTION	USCS SYMBOL	ESTIMATED PERCENT OF: GR	SA	SI	CL	MOISTURE	CONSISTENCY	COLOR	COMMENTS
0			—		14" AC CONCRETE AT SURFACE.									
1														
2				3										
3				5	MEDIUM TO LIGHT GRAY									
	B3-3			6	WELL GRADED SAND, LOOSE,	SW	15	75	10	TR				0930 0 PPM
4					SLIGHTLY MOIST, MEDIUM TO									
					VERY COARSE GRAINED SAND									
5					GRAVEL.									APPEARANCE
														ON CUTTINGS
6														
7				4	MEDIUM TAN/BROWN COARSE									
				33	GRADED SAND AS ABOVE									
8	B3-8		▼	50	MEDIUM GRAYISH BROWN	SP	10	80	10	TR				1955 0 PPM
					SAND (SP) POORLY GRADED, FINE TO COARSE GRAINED									
9					SATURATED AT 8.5' LOS									
					WATER ENCOUNTERED WHILE									
10					DRILLING AT 8.5'									
11														
12				16										
				21	BROWN VERY FINE TO FINE									
13	B3-13			19	GRAINED SILTY SAND, MEDIUM	SM	0	70	30	TR				1020 0PPM
					DENSE SATURATED COMMON									
14					GRAY MOTTLED APPEARANCE.									
					NOTE TOTAL DEPTH = 13.5'									
15														
16														

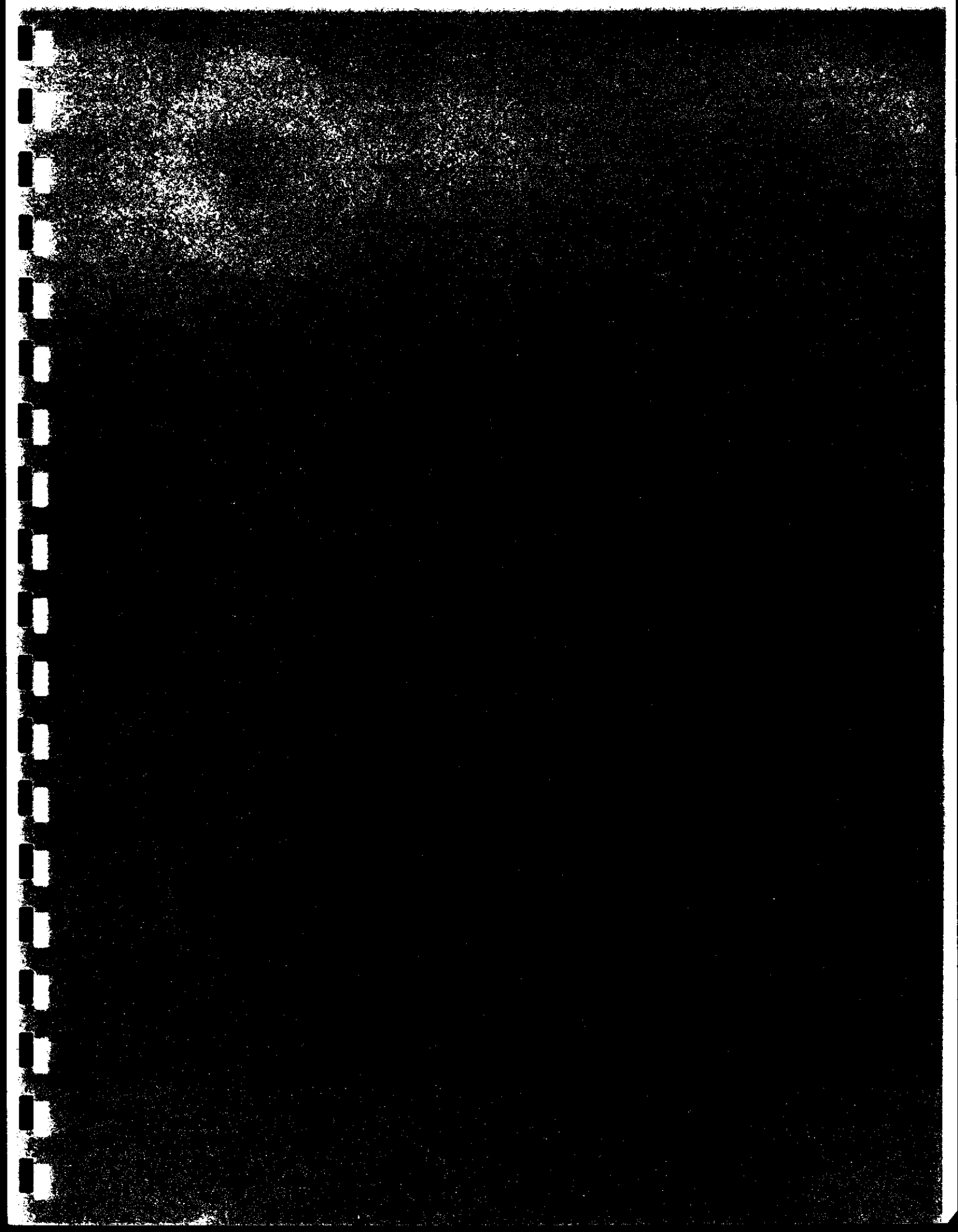
SITE TYPE SITE ID

FIELD LOG OF BORING

BORE B-4 SHEET 1 OF 1

PROJECT NAME AND LOCATION: Kelly's Truck Repair	PROJECT NUMBER: TC-9321-02	ELEVATION AND DATUM:	
DRILLING COMPANY: Soils Exploration Services	DRILLER: SCOTT	DATE AND TIME STARTED: 12/29/92, 1320	DATE AND TIME COMPLETED: 12/29/92 1400
DRILLING EQUIPMENT: RIG NO. Access Rig, HSA		COMPLETION DEPTH: 13.5' (SAMPLE DEPTH)	TOTAL NO. OF SAMPLES: (3) SOIL (1) WATER
SIZE AND TYPE OF BIT: 7"		NO. OF SAMPLES: JAR: SS:	DRIVE: PITCHER:
DRILLING FLUID:		WATER LEVEL: FIRST 9.0'	AFTER ____ HOURS
SAMPLER 2" TYPE CA MOD. SPLIT SPOON DRIVING WT. 140 lbs DROP		HYDROGEOLOGIST/DATE: Kevin McNamara	CHECKED BY/DATE:

DEPTH (FEET)	SAMPLES: TYPE AND NUMBER	SAMPLES: INTERVAL	SAMPLES: RECOVERY	SAMPLES: BLOW COUNT	DESCRIPTION	USCS SYMBOL	ESTIMATED PERCENT OF: GR	SA	SI	CL	MOISTURE	CONSISTENCY	COLOR	COMMENTS
0			—		2" CONCRETE SURFACE									SAMPLE WITH DISPOSABLE BAILER AT BORING COMPLETION. BAILING WAS PERFORMED WITHIN HOLLOW STEM AUGER.
1														
2				5										
3	B4-3			9	DARK BROWN SILTY SAND, LOOSE, SLIGHTLY MOIST ORGANIC RICH ABUNDANT WOOD FRAGMENTS;	SM	5	65	30	TR				1320 APPX
4														
5														
6														
7				20										
8	B4-8			31	GREENISH BROWN POORLY GRADED SAND (SP), MOIST, DENSE, WEATHERED APPEARANCE. NOTE: ENCOUNTERED GEOL... WATER AT 9 ...	SP	TR	70	20	10				1334 2.0 ppm
9			▼											
10														
11														
12				20										
13	B4-13			25	MEDIUM BROWN SILTY AND CLAYEY SAND, MEDIUM DENSE COARSE GRAY LENSES	SM	0	60	25	15				1345 1 ppm NOTE: PLUG BACK BORING WITH PORTLAND CEMENT TO GRADE.
14														
15					T.D. AT 13.5' bgs									
16														



State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
0515 Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.: C A C 0 0 0 7 9 8 1 2 0 | 0 0 0 0 1
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CALTRANS - DISTRICT 4
111 Grand Avenue, Oakland, CA. 94607

4. Generator's Phone (510) 286-5646

A. State Manifest Document Number: 92216322
B. State Generator's ID:

5. Transporter 1 Company Name: H & H Ship Service Company
6. US EPA ID Number: C A D 0 0 4 7 7 1 1 6 8
C. State Transporter's ID: 402012
D. Transporter's Phone: (415) 543-4835

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

9. Designated Facility Name and Site Address
H & H Ship Service Company
220 China Basin Street
San Francisco, CA. 94107
10. US EPA ID Number: C A D 0 0 4 7 7 1 1 6 8
G. State Facility's ID: C A D 0 0 4 7 7 1 1 6 8
H. Facility's Phone: (415) 543-4835

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. OIL AND WATER NON-RCRA HAZARDOUS WASTE LIQUID	0 0 1	D M	00035	G	State 133 EPA/Other
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

FEB 23 1993
RECEIVED

J. Additional Descriptions for Materials Listed Above
FUEL, OIL AND WATER
PROFILE #A2403

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

15. Special Handling Instructions and Additional Information
JOB #12107
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR
JOB SITE: KELLY'S TRUCK REPAIR
1821 Goss Street
Oakland, California

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the 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 federal, state and international laws.

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: ALLAN CHOW — Signature: Allan Chow — Month 0 1 Day 2 9 Year 9 3

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: NORMAN L. BERG — Signature: [signature] — Month 0 1 Day 2 9 Year 9 3

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Rashan Shadlow — Signature: [signature] — Month 0 2 Day 0 1 Year 9 3

DO NOT WRITE BELOW THIS LINE.

GENERATOR

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

92216322

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812

DTSC 8022A (12/91)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAC000798120 | Manifest Document No. 16323 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CALTRANS - DISTRICT 4
111 Grand Avenue, Oakland, CA. 94607

4. Generator's Phone (510) 286-5646

A. State Manifest Document Number 92216323

B. State Generator's ID

C. State Transporter's ID 402012

D. Transporter's Phone (415) 543-4835

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID CAT080010101

H. Facility's Phone (619) 427-6275

5. Transporter 1 Company Name: H & H Ship Service Company
6. US EPA ID Number: CAD004771168

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
APPROPRIATE TECHNOLOGIES
1700 Maxwell Road
Chula Vista, CA. 92011

10. US EPA ID Number: CAT080010101

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	State Waste No.
a. GASOLINE CONTAMINATED SOIL NON-RCRA HAZARDOUS WASTE SOLID	002	DM	00700	P	
b.					
c.					
d.					

15. Special Handling Instructions and Additional Information
JOB #12107 P.O. # 27742
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

JOB SITE: KELLY'S TRUCK REPAIR
1821 Goss Street
Oakland, California

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Printed/Typed Name	Signature	Month	Day	Year
ALLAN CHOW	Allan Chow	01	29	99

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
NORMAN L. BERG	Norman L. Berg	01	29	99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

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

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR | TRANSPORTER | FACILITY

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

92216323

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (12/91)
EPA 8700—22

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812