LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

June 16, 1994

LF 3015

Mr. Barney Chan, Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
Division of Hazardous Materials
80 Swan Way, Room 200
Oakland, California 94621

Subject: Tank Closure Report on Removal of Underground Fuel Storage Tanks and Related Structures at the Former Gasoline Service Station Location at 625 Hegenberger Road, Oakland, California

Dear Mr. Chan:

This tank closure report is submitted by Levine•Fricke, Inc. on behalf of Diversified Investment and Management Corp., for the former gasoline service station location at 625 Hegenberger Road, Oakland, California.

Please do not hesitate to call if you have any questions.

Sincerely,

Susan M. Henry

Susan M. Henry, Ph.D.
Senior Project Engineer

cc: James Graeb, Diversified Investment and Management Corp.

1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500
Fax (510) 652-2246

Other offices in Irvine, CA; Sacramento/Roseville, CA; Tallahassee, FL; Honolulu, HI

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

January 27, 1994 LF 3015.00-06

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
Division of Hazardous Materials
80 Swan Way, Room 200
Oakland, California 94621

Subject: Tank Closure Report on Removal of Underground Fuel Storage Tanks and Related Structures at the Former Gasoline Service Station Location at 625 Hegenberger Road, Oakland, California

Dear Mr. Chan:

Enclosed is the final tank closure report for the subject site. If you have any questions about the report, please call me or John Sturman, P.E., R.G.

Sincerely,

Susan M. Henry

Susan M. Henry, Ph.D.
Senior Project Environmental Engineer

Enclosure

cc: James Graeb, Diversified Investment and Management Corp.

1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500
Fax (510) 652-2246

Other offices in Irvine, CA; Sacramento/Roseville, CA; Tallahassee, FL; Honolulu, HI

Tank Closure Report on Removal of Underground Fuel Storage Tanks and Related Structures at the Former Gasoline Service Station Location at 625 Hegenberger Road, Oakland, California

January 27, 1994
3015.00-06

Prepared for:

Diversified Investment and Management Corporation
400 Oyster Point Blvd, Suite 415
South San Francisco, California 94080

LEVINE·FRICKE

CONTENTS

	PAGE
LIST OF TABLES	ii
LIST OF FIGURES	ii
CERTIFICATION	iii
1.0 INTRODUCTION	1
2.0 BACKGROUND	1
2.1 Site History	1
2.2 Previous Subsurface Investigations	2
3.0 WORK PERFORMED	3
3.1 Demolition of Structures	3
3.2 Excavation and Stockpiling of Soil	3
3.3 UST and Piping Contents Removal and Stabilization Procedure	3
3.4 Removal of USTs, Appurtenant Piping, and Sump	4
3.5 Air Monitoring	5
3.6 Soil and Ground-Water Sampling	5
3.7 Excavation Backfilling	7
3.8 Laboratory Analyses	7
4.0 FIELD OBSERVATIONS	8
4.1 USTs, Product Piping, and Sump Conditions	8
4.2 Ambient Air Monitoring Results	8
4.3 Soil Conditions	9
4.4 Ground-Water Conditions	9
5.0 SOIL QUALITY RESULTS	10
6.0 SUMMARY AND CONCLUSIONS	11
REFERENCES	13
TABLES	
FIGURES	
ATTACHMENTS	

LIST OF TABLES

Number	Title
1	Soil Sampling Analysis Results for Stockpiled Soils, UST Removal
2	Soil Sampling Analysis Results for In-Place Soils, UST Removal
3	Confirmation Soil Sampling Analysis Results, UST Removal
4	Ground-Water Sampling Analysis Results, UST Removal

LIST OF FIGURES

Number	Title
1	Site Plan Showing Former Location of USTs and Pump Islands, Location of Stockpiled Soil, and Approximate Location of Monitoring Wells and Soil Borings
2	Site Plan Showing Approximate Soil Sample Locations and Location of Observed Leaks in USTs

CERTIFICATION

All engineering information, conclusions, and recommendations have been prepared under the supervision of and reviewed by a Levine·Fricke California Professional Engineer.

John O. Sturman

1/27/94
Date

John O. Sturman
Senior Geotechnical Engineer
California Civil Engineer (049765)

January 27, 1994 LF 3015.00-06

TANK CLOSURE REPORT ON REMOVAL OF UNDERGROUND FUEL STORAGE TANKS AND RELATED STRUCTURES AT THE FORMER GASOLINE SERVICE STATION LOCATION AT 625 HEGENBERGER ROAD, OAKLAND, CALIFORNIA

1.0 INTRODUCTION

On behalf of Diversified Investment and Management Corporation, Levine•Fricke, Inc. ("Levine•Fricke") has prepared this report to describe activities related to the removal of three 12,000-gallon capacity underground fuel storage tanks (USTs) and related structures at the former gasoline service station location at 625 Hegenberger Road in Oakland, California ("the Site").

This report describes the demolition of gasoline service station structures, the excavation and stockpiling of soil, the stabilization and removal of the USTs and related structures, and the soil and ground-water sampling activities, and presents laboratory analytical results and our conclusions. Levine•Fricke was retained by Diversified Investment and Management Corporation to provide services to assist with closure of the USTs, including preparation of a site Health and Safety Plan, permitting, compliance, field observation, air monitoring, sampling, and preparation of this closure report.

2.0 BACKGROUND

Structures present at the site included two pump islands with fuel dispenser pumps, a sheet metal canopy held up by three footings, and a sheet metal cashier's building. Concrete overlaid the area over the USTs and between the pump islands.

2.1 Site History

Three 12,000-gallon USTs and one 260-gallon capacity sump were present at the Site. Approximately 140 feet of underground piping (product plus vent piping) connected the USTs to six fuel dispenser pumps located on the two pump islands. It was reported that the USTs were used to store gasoline, and that the sump may have been used to store waste motor oil. It would appear, according to the deeds of trust recorded in the chain of title, that the USTs were installed in the mid-1960s, probably between 1962 and 1966, and abandoned in the mid-

1970s. The former locations of the USTs and pump islands are indicated in Figure 1.

2.2 Previous Subsurface Investigations

Soil samples collected from borings drilled by Subsurface Consultants in 1988 and 1990 contained gasoline, diesel, and oil (Subsurface Consultants 1988 and 1990). Approximate boring locations are shown on Figure 1. The most elevated gasoline concentrations in soil were 5,600 milligrams per kilogram (mg/kg), 2,200 mg/kg, and 1,000 mg/kg in borings 6, 7, and 23, respectively. The most significant diesel concentrations in soil were 6,400 mg/kg and 5,000 mg/kg in borings 7 and 9, respectively. The most significant oil and grease (O&G) concentrations in soil were 100,000 mg/kg, 40,000 mg/kg, and 23,000 mg/kg in borings 7, 9, and 8 (MW-8), respectively.

Soil samples collected by Subsurface Consultants were also analyzed for total lead, soluble lead, organic lead, cyanide, volatile organics, semivolatile organics, and ethylene dibromide. Total lead was detected in soil at concentrations well below 1,000 mg/kg, the State of California total threshold limit concentration (TTLC), and was detected in all soil samples analyzed. Soluble lead was detected in three of six samples at concentrations slightly in excess of the State of California soluble threshold limit concentration (STLC) of 5 mg/kg. Organic lead was detected in one of six samples at 0.9 mg/kg, which is below the TTLC of 13 mg/kg. Volatile and semivolatile organics as analyzed by EPA Methods 8010 and 8270 were not detected. Ethylene dibromide was not detected. Cyanide was detected at 0.49 mg/kg in one of two soil samples analyzed.

Analysis of ground-water samples collected by HartCrowser (HartCrowser 1993) on May 28, 1993 indicated that gasoline, the gasoline constituents benzene, toluene, ethylbenzene, and xylenes (BTEX), and diesel were present in some wells. The most elevated gasoline and benzene concentrations (19 milligrams per liter [mg/l] and 6.4 mg/l, respectively) were detected in monitoring well MW-8, which is approximately downgradient from the pump islands. The ground-water samples were also analyzed for organic lead, which was not detected in them.

3.0 WORK PERFORMED

Golden West, Inc., of Livermore, California, performed the demolition, soil excavation, and UST removal under contract to Diversified Investment and Management Corporation. Utility locations were identified and marked by Underground Services Alert of Concord, California.

3.1 Demolition of Structures

On October 18 and 19, 1993, Golden West removed all aboveground structures from the Site, including six dispenser pumps, two pump islands, a small cashier's building constructed of sheet metal, a sheet metal canopy, concrete in the area between the pump islands, and concrete in the area above the USTs. Hoses were cut off from the fuel pumps and residual product was drained into the USTs. The pumps were removed with a bulldozer. Removal of the pump islands included removal of three footings, approximately 3 feet by 3 feet by 6 feet deep, that supported the canopy.

The concrete between the pump islands was removed with a bulldozer equipped with ripper teeth. The building was demolished with the bulldozer, and the canopy pulled down with the clamshell bucket on the bulldozer. The concrete in the area above the USTs was demolished with a jackhammer attached to a Bobcat. Golden West loaded the rubble into trucks and hauled the rubble to the BFI Vasco Road Sanitary Landfill, a Class III non-hazardous waste landfill located in Livermore, California. A portion of the concrete was retained to construct berms around the soil stockpile.

3.2 Excavation and Stockpiling of Soil

On October 20, 1993, the overburden soil and soil immediately surrounding the USTs was removed using an excavator. Golden West estimated that approximately [redacted] removed. The [redacted] loaded into trucks and hauled to another part of the property, were it was stockpiled on bermed visqu[redacted]plastic (10-mil polyethylene sheets), and covered with visquene. The soil stockpile did not exceed 8 feet in height. The location of the soil stockpile is shown in Figure 1. The excavated area is indicated in Figure 2.

3.3 UST and Piping Contents Removal and Stabilization Procedure

On October 18, 1993, the product piping was backflushed with water into the USTs to remove residual product. The residual

product drained from the dispenser piping was also transferred to the USTs. On October 20, residual product was pumped out of the USTs and removed from the Site by H & H Ship Service Company of San Francisco, California (H & H), and taken to PRC Patterson, Inc., in Patterson, California, for recycling. The residual product was manifested as hazardous waste, and recorded under Environmental Protection Agency (EPA) manifest numbers 92221035 and 92221061. [redacted]

On October 21, 1993, before their removal, the USTs were stabilized using dry ice and liquid nitrogen. Two hundred pounds of pelletized dry ice was placed in each UST through ports at their ends. Liquid nitrogen was used to stabilize the USTs when it was determined that dry ice was not sufficient to stabilize them. Additionally, four cylinders of liquid nitrogen were used during the UST stabilization process.

Combustible gases and oxygen concentrations were measured in the USTs using a combustible gas meter. The air inside the USTs was drawn into the meter through tubing that was lowered approximately 3 feet into the UST. Before the north UST was removed, meter readings indicated that combustible gases were at 11 percent of the lower explosion limit (LEL) and oxygen was at 2 percent. Before the middle UST was removed, meter readings indicated that combustible gases were at 8 percent of the LEL and oxygen was at 3 percent. Before the south UST was removed, meter readings indicated that combustible gases were at 2 percent of the LEL and oxygen was at 0 percent.

3.4 Removal of USTs, Appurtenant Piping, and Sump

The stabilized USTs were removed from the excavation on October 21, 1993, immediately after meter readings indicated that the LEL and oxygen concentrations had reached acceptable levels. After Barney Chan of the Alameda County Department of Environmental Health (ACDEH) gave his approval, each UST was lifted out of the ground using a link-belt excavator. The middle UST was removed at 12:45 p.m.; the north UST was removed at 1:47 p.m.; and the south UST was removed at 3:26 p.m.

After removal, each tank was placed on the ground and inspected for cracks and holes. Deteriorated tank wrapping was manually removed from each tank with a shovel. After inspection, each tank was lifted onto a flatbed truck operated

by H & H using the belt-link excavator, and secured with chains. The identification numbers of the trucks were #401995, #401994, and #401993. Each UST was manifested as hazardous waste, and recorded under EPA manifest numbers 92221047, 92221048, and 92221049. Copies of these manifest documents are attached. H & H removed the USTs from the Site to its facility in San Francisco, California for recycling.

Before the removal of the USTs, the fill, product, and vent piping were removed on October 21, 1993. The product piping extended approximately 20 feet north from the USTs along west fuel island, then approximately 45 feet east, then approximately 20 feet south along the east fuel island (see Figure 2). The piping was set aside and subsequently loaded onto a truck operated by H & H for removal to its facility for recycling.

The sump was reportedly excavated on October 22, 1993, and loaded onto a truck operated by H & H for removal to its facility for recycling. Levine·Fricke did not observe the sump removal. However, on the morning of October 22, 1993, Levine·Fricke did observe that the sump had been excavated and set aside.

3.5 Air Monitoring

During the soil excavation and UST removal activities, Levine·Fricke used a photoionization detector (PID) to routinely monitor ambient air for volatile organic compounds (VOCs) associated with gasoline. Monitoring was conducted at the perimeter of the work area outside the fence, and in the work area.

During soil excavation activities on October 20, 1993, ambient air was also monitored twice with benzene detector tubes. Benzene in ambient air was monitored at the southwest corner of the excavation, and at the eastern, downwind boundary of the work area outside the fence.

3.6 Soil and Ground-Water Sampling

After the USTs were removed from the Site, soil and ground-water samples were collected by Levine·Fricke under the observation of Barney Chan. Two ground-water samples were collected from the ground water that had seeped into the excavation. Soil samples were collected from the excavation (samples with the designate EX), the dispenser and piping trench (samples with designate D+P), and the stockpile (samples with designate SP), for a total of 23 soil samples.

Unless otherwise noted, all soil samples were collected from native material. Figure 2 presents soil sampling locations.

Since ground water had seeped into the excavation, soil samples from the excavation were taken immediately above the ground water from the excavation side wall, in accordance with the Tank Closure Plan (Golden West 1993). Soil sampled from the side wall of the excavation was collected at approximately 6 to 8 feet below ground surface (bgs) and 2 feet into the side wall of the excavation. Soil sampled from the dispensers and piping trench was sampled from approximately 2 feet below the bottom of the trench, or approximately 4 to 6 feet bgs.

Soil samples from the excavation and piping trench were collected using a backhoe. The backhoe operator was directed to remove portions of native soil at the desired depth and location with the backhoe. After raising the backhoe bucket to the ground surface, soil samples were collected by driving 2-inch-diameter brass tubes into the desired portion of soil in the backhoe bucket. After filling the tube completely to minimize headspace, the ends of the tube were enclosed with plastic caps over Teflon. Samples were labelled and placed in a chilled ice chest for immediate transport to the analytical laboratory under chain-of-custody protocol.

Soil sampled from the soil stockpile was collected from six randomly selected locations across the extent of the stockpile. A trowel was used to remove approximately 6 inches of soil, then soil samples were collected by driving 2-inch-diameter brass tubes into the desired portion of soil. The tubes were filled and capped as described above.

Ground water sampled from the excavation was collected using a backhoe. The backhoe operator was directed to scoop up ground water from the center of the excavation with the backhoe bucket. After the backhoe bucket was raised to the ground surface, two ground-water samples were collected. Ground-water samples were placed in both 1-liter-capacity glass bottles and 40-ml glass volatile organic analysis (VOA) containers. The sample containers were completely filled and checked to avoid trapped air. Immediately after collection, the samples were labeled and placed in a chilled ice chest for immediate transport to the analytical laboratory under chain-of-custody protocol.

3.7 Excavation Backfilling

On October 22, 1993, Golden West reportedly backfilled the excavation. Before the excavation was backfilled, the ground water that had seeped into the excavation was removed by H & H. Levine•Fricke did not observe backfilling activities, but did observe that H & H was pumping the ground water from the excavation on the morning of October 22. On October 25, 1993, Levine•Fricke observed that the excavation had been backfilled.

3.8 Laboratory Analyses

Soil samples collected during the course of UST removal activities were submitted to American Environmental Network of Pleasant Hill, California (AEN). AEN analyzed the samples for total petroleum hydrocarbons as gasoline (TPHg) using EPA Method 5030 GCFID, for BTEX using EPA Method 8020, for TPH as diesel (TPHd) and as oil (TPHo) using EPA Method 3550 GCFID, for O&G using Standard Methods (SM) 5520F, for total lead using EPA Method 7420, and for organic lead using the California Department of Health Services (DHS) method.

Additionally, the two soil samples that contained the highest concentrations of oil were analyzed for cadmium, nickel, chromium, and zinc using EPA Method 6010, for VOCs including chlorinated solvents using EPA Method 8240, and semivolatile organic compounds (SVOCs) using EPA Method 8270. Five soil samples that contained total lead at concentrations greater than 50 mg/kg (10 times the STLC) were analyzed for soluble lead using the EPA Waste Extraction Test method and EPA Method 7420.

Ground-water samples collected from the excavation were also submitted to AEN. AEN analyzed the samples for TPHg using EPA Method 5030 GCFID, for BTEX using EPA Method 8020, for TPHd and TPHo using EPA Method 3510 GCFID, for O&G using Standard Methods (SM) 5520F, for total lead using EPA Method 7420, and for organic lead using the DHS method.

All samples were handled using strict chain-of-custody procedures.

4.0 FIELD OBSERVATIONS

4.1 USTs, Product Piping, and Sump Conditions

Shellie Fletcher and Susan Henry of Levine·Fricke, John MacKay of Diversified Investment and Management Corporation, and Barney Chan of ACDEH inspected the USTs upon removal. Susan Henry and Barney Chan inspected the piping. Levine·Fricke did not observe the sump excavation and removal, but did observe the sump from a distance after it had been excavated and set aside for removal.

The USTs were made of steel. The asphalt tar and fabric wrapping around the USTs had deteriorated. The north UST had an old, rusted dent in the underside of the tank at the eastern end, and a hole (approximately 3 by 6 inches in size) in the dent as indicated in Figure 2. Leaks of nitrogen gas were observed to come from this hole during the UST stabilization procedures. The middle UST had minor exterior corrosion on the eastern end. Leaks of nitrogen gas were observed to come from the underside of the western end of this UST during stabilization procedures (Figure 2), but no hole was observed upon inspection. The south UST had a dent and a frosted area, possibly representing a small hole, on the underside at the eastern end.

Product piping was rusted and corroded, and had small holes in some places. The product piping had been removed by Golden West before soil sampling was conducted, so it was not possible to correlate the sampling locations with the holes in the piping. The sump was reported to be steel, and from the distance at which Levine·Fricke observed the excavated sump, it appeared to be rusted and corroded.

4.2 Ambient Air Monitoring Results

The ambient air monitoring conducted on October 20 during soil excavation activities indicated that the average hydrocarbon concentration, as determined by the PID, ranged from approximately 15 to 30 parts per million (ppm). The minimum ambient air concentration was non-detect, and the maximum was 108 ppm. Three times during the period when soil immediately surrounding the USTs was being excavated and loaded into trucks, levels in excess of 90 ppm were detected. The locations where these high levels were detected were in the work area adjacent to the excavation, and downwind from the work area immediately outside the fencing.

Twice, when the PID indicated that the ambient air hydrocarbon concentrations exceeded 100 ppm, benzene detector tubes were used to monitor ambient benzene concentrations. One sample was taken at 1:45 p.m. on October 20 at the southwest corner of the excavation, 2 feet above ground surface. Another was taken at 2:45 p.m. on the eastern side of the work area outside the fence, downwind from excavation activities. The monitoring results indicated that benzene was present in the ambient air at those particular locations at those times at concentrations of approximately 4 ppm. TWA = 10ppm

On October 21, during UST removal activities, ambient air hydrocarbon concentrations as monitored by the PID averaged approximately 10 ppm. Generally, hydrocarbon concentrations in the ambient air were much lower than on October 20. Twice during the tank removal activities, the ambient air concentrations briefly exceeded 100 ppm. The PID indicated an ambient air hydrocarbon concentration of 105 ppm directly downwind from the former eastern fuel pump when the footing in that location was excavated. When the middle UST was pulled out of the excavation, the hydrocarbon concentration briefly rose to 122 ppm, but dropped immediately thereafter to 10 ppm.

4.3 Soil Conditions

Concrete paving covered the ground surface over the USTs and the dispenser and piping area. Below the concrete, a layer of aggregate base gravel, consisting of gravel and sand, was observed. The USTs and piping had been placed in sand backfill. Native soils consisted primarily of gray to black clay and silty clay, with some sandy clay. Based on PID measurements, visual observations, and odor, the clay sediments surrounding the excavation and below the piping trench were affected by gasoline hydrocarbons. Pea gravel wet with product (apparently gasoline) was observed in the approximate location of the former southeastern fuel dispenser pump (where sample D+P6 was collected).

4.4 Ground-Water Conditions

Seepage into the excavation was observed during soil excavation activities, and standing water was observed in the excavation at a depth of approximately 6 to 8 feet bgs after the USTs had been removed. A product sheen and floating product were observed on the standing water in the excavation. The water collected from the excavation during sampling had a petroleum hydrocarbon odor. Some of the floating product had a dark, milky sheen, and it was suggested that this dark milky

sheen was from part of the asphalt UST wrap that had been dissolved by gasoline.

5.0 SOIL QUALITY RESULTS

The soil sampling analysis results indicate that soil surrounding the USTs, the sump, and the product piping is affected by gasoline-, diesel-, and oil-range hydrocarbons (Tables 1 and 2). TPHg, the petroleum hydrocarbon of greatest concern, was detected at concentrations up to 7,600 mg/kg. BTEX concentrations were present at corresponding elevated levels. TPHo was detected at concentrations as high as 11,000 mg/kg. TPHd was frequently below detection limits; the highest concentration detected was 140 mg/kg. These soil sampling results are consistent with the soil sampling conducted by Subsurface Consultants in 1988 and 1990 (Subsurface Consultants, 1988 and 1990).

Lead was also detected in the soil (Tables 1 and 2). Total lead was detected in all 23 samples tested at concentrations ranging from 8 to 130 mg/kg, all well below the TTLC of 1,000 mg/kg. Organic lead (tetra-ethyl- and tetra-methyl-lead, which were additives to gasoline) was detected in only 8 of the 23 samples tested at concentrations ranging from 0.7 to 9.1 mg/kg, all less than the TTLC of 13 mg/kg. Soluble lead was detected in all five of the soil samples analyzed for soluble lead. However, only one sample contained soluble lead in excess of the STLC. This sample, D+P6, was the sample that contained total lead at the highest concentration detected. The soluble lead concentration detected was 6 mg/l, slightly in excess of the STLC of 5 mg/l.

The stockpiled soils contained TPHg at concentrations ranging from 780 to 1,900 mg/kg, with an average concentration of 1,195 mg/kg (Table 1). TPHd ranged from below the detection limit to 140 mg/kg. Oil, measured as TPHo and O&G, was present in the highest concentrations in the excavated soil. TPHo ranged from 380 to 11,000 mg/kg, with an average concentration of 2,832 mg/kg. O&G ranged from 730 to 5,700 mg/kg, with an average concentration of 2,238 mg/kg.

The soil samples collected from the sidewalls of the excavation contained TPHg in the highest concentrations detected, with concentrations ranging from 490 to 7,600 mg/kg (Table 2). The highest concentrations in this area (7,600 mg/kg and 6,000 mg/kg) were detected respectively in sample EXWN8, which is approximately downgradient from the former north UST location, and sample EXEN1, which is upgradient from

the former north UST location. Oil concentrations were generally much lower in the soil samples taken from the excavation sidewalls, with concentrations ranging from 30 to 770 mg/kg. TPHd concentrations were below 100 mg/kg in all soil samples taken from the excavation sidewall.

The soil samples collected from the dispenser and piping area contained gasoline at concentrations ranging from below the detection limit to 1,600 mg/kg, with an average concentration of 463 mg/kg (Table 2). TPHo concentrations ranged from 8 to 220 mg/kg. TPHd concentrations were under the laboratory's minimum detection limit for four of the seven samples collected from this area, and the highest concentration detected was 30 mg/kg.

In accordance with the Tank Closure Plan and the requirements of ACDEH, two soil samples with the highest oil concentrations were analyzed for cadmium, chromium, zinc, and nickel, chlorinated hydrocarbons, volatiles, and semivolatiles. The soil samples analyzed for these parameters were samples SP2 and SP3, from the stockpiled soil. No chlorinated hydrocarbons or other volatiles or semivolatiles of concern were detected, except for BTEX, and 2-methylnaphthalene and naphthalene, which are petroleum hydrocarbon components (Table 3). The four metals were detected at levels well below their respective TTLCs.

The two ground-water samples collected from the excavation contained TPHg at 120 and 95 mg/l, with corresponding concentrations of BTEX (Table 4). Benzene was detected at 14 and 15 mg/l. TPHd was below the detection limit, and TPHo was present at concentrations of 30 and 15 mg/l. Total (organic and inorganic) lead in solution was detected at 0.2 and 0.3 mg/l. No organic lead was detected in the ground-water samples.

Analytical results are summarized in Tables 1 through 4, and laboratory certificates are attached.

6.0 SUMMARY AND CONCLUSIONS

Three 12,000-gallon USTs, appurtenant piping, and a sump were removed from the Site. Approximately 250 cubic yards of soil immediately surrounding the USTs was excavated and stockpiled on an adjacent portion of the property site on bermed plastic, and covered with plastic.

Soil from the sidewalls of the excavation and soil from the dispenser and piping area was sampled and analyzed, and found to contain significant concentrations of TPHg and BTEX. The stockpiled soil also contained significant concentrations of TPHg and BTEX, as well as high concentrations of TPHo. The ground water in the excavation was sampled and found to contain significant levels of TPHg and BTEX.

Based upon our review of the work performed, sampling and analysis procedures, and analytical results obtained, it is our opinion that the work was performed in compliance with applicable UST closure requirements.

7.0 RECOMMENDATIONS

We recommend that a supplemental site characterization be conducted to assess both the extent of gasoline-, oil-, and lead-affected soils and the extent of gasoline-affected ground water. To estimate the volume of soils that may require remediation, approximately three to six additional soil borings should be drilled. The potential impact on ground water should be assessed by installing approximately two to four shallow monitoring wells in the downgradient direction (presumably west) from the UST and monitoring the ground water for TPH. We recommend remediation of the stockpiled soils.

REFERENCES

Golden West, Inc. 1993. Underground Tank Closure Plan for 625 Hegenberger Road, Oakland, California. Prepared for the Alameda County Health Care Services Agency.

HartCrowser. 1993. Letter Report Regarding Ground-Water Sampling, 625 Hegenberger Road, Oakland, California.

Subsurface Consultants, Inc. 1988. Letter Report Regarding Petroleum Hydrocarbon Contamination and Underground Fuel Storage Tank Removal, Collins Drive and Hegenberger Road, Oakland, California.

———. 1990. Analytical Results and Boring Logs, Collins Drive and Hegenberger Road, Oakland, California.

TABLE 1
SOIL SAMPLING ANALYSIS RESULTS FOR STOCKPILED SOILS
UST REMOVAL
625 HEGENBERGER ROAD, OAKLAND, CALIFORNIA
(concentrations reported in milligrams per kilogram [mg/kg])

Sample ID	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd	TPHo	Oil & Grease	Organic Lead	Total Lead
SP1	21-Oct-93	<0.20	2.0	2.8	76	1,100	140	900	1,400	1.6	29
SP2	21-Oct-93	0.40	6.2	7.4	65	990	<20	11,000	5,700	9.1	48
SP3	21-Oct-93	0.41	4.3	4.2	120	1,400	<20	2,900	2,700	4.5	49
SP4	21-Oct-93	0.44	4.4	1.6	92	1,000	40	1,300	1,700	2.1	30
SP5	21-Oct-93	0.45	11.0	12.0	180	1,900	34	510	1,200	0.7	27
SP6	21-Oct-93	<0.20	3.0	1.5	49	780	17	380	730	2.2	13
TTLC		---	---	---	---	---	---	---	---	13	1,000

Data entered by MEK/12 Nov 93 Data proofed by SMH QA/QC by SMH

TPHg - Total petroleum hydrocarbons as gasoline by EPA Method 5030, GCFID
TPHd - Total petroleum hydrocarbons as diesel by EPA Method 3350, GCFID
TPHo - Total petroleum hydrocarbons as oil by EPA Method 3550, GCFID
Oil and grease by Standard Method 5520 F
Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8020
Organic lead by DHS Method
Total lead by EPA Method 7420

TTLC - State of California total threshold limit concentration (Source: California Code of Regulations, Title 22)

Analyses performed by American Environmental Network, Pleasant Hill, California.

TABLE 2
SOIL SAMPLING ANALYSIS RESULTS FOR IN-PLACE SOILS
UST REMOVAL
625 HEGENBERGER ROAD, OAKLAND, CALIFORNIA
(concentrations reported in milligrams per kilogram [mg/kg])

Sample ID	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd	TPHo	Oil & Grease	Organic Lead	Total Lead	Soluble Lead
D+P1	21-Oct-93	3.4	5.8	12	61	940	30	80	610	<0.5	21	NA
D+P2	21-Oct-93	0.068	0.55	1.1	0.93	160	<10	170	350	<0.5	37	NA
D+P3	21-Oct-93	0.93	0.22	4.1	1.9	74	<4	120	250	<0.5	120	5.0
D+P4	21-Oct-93	0.64	0.11	0.51	1.3	14	<20	220	190	<0.5	66	4.7
D+P5	21-Oct-93	1.2	2.7	12	35	1,600	<30	210	930	<0.5	86	3.6
D+P6	21-Oct-93	<0.005	<0.005	<0.005	<0.005	<0.2	<6	190	390	<0.5	130	6.0
D+P7	21-Oct-93	<0.25	0.25	<0.25	10	450	7	8	140	<0.5	12	NA
EXEN1	21-Oct-93	38	130	130	570	6000	<6	140	430	<0.5	10	NA
EXEN2	21-Oct-93	21	60	52	290	3500	<5	650	2000	<0.5	110	1.3
EXES3	21-Oct-93	38	190	91	510	3200	10	160	510	<0.5	11	NA
EXSES4	21-Oct-93	20	62	90	490	3000	14	240	NA	<0.5	10	NA
EXNEN5	21-Oct-93	31	180	80	420	3200	63	190	NA	<0.5	10	NA
EXNWN6	21-Oct-93	37	180	80	480	3800	8	170	NA	1.2	11	NA
EXWM7	21-Oct-93	33.3	21	17	130	1300	9	30	NA	<0.5	43	NA
EXWN8	21-Oct-93	74	370	110	860	7600	44	770	NA	1.8	19	NA
EXWS9	21-Oct-93	24	33	60	350	3000	37	140	NA	<0.5	11	NA
EXSWS10	21-Oct-93	4.1	9.3	10	73	490	35	160	NA	<0.5	8	NA
TTLC		---	---	---	---	---	---	---	---	13	1,000	---
STLC		---	---	---	---	---	---	---	---	---	---	5.0

Data entered by MEK/12 Nov 93 Data proofed by SMA QA/QC by SMA

TPHg - Total petroleum hydrocarbons as gasoline by EPA Method 5030, GCFID
TPHd - Total petroleum hydrocarbons as diesel by EPA Method 3550, GCFID
TPHo - Total petroleum hydrocarbons as oil by EPA Method 3550, GCFID
Oil and grease by Standard Method 5520 F
Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8020
Soluble lead by Waste Extraction (WET) Method and EPA Method 7420
Total lead by EPA Method 7420
Organic lead by DHS Method

NA - not analyzed
TTLC - State of California total threshold limit concentration
STLC - State of California soluble threshold limit concentration
(Source: California Code of Regulations, Title 22)

Samples with ID "D+P" are from dispenser and piping area.
Samples with ID "EX" are from sidewalls of the excavation.
Second set of letters indicate which sidewall area (E = east, W = west, N = north, and S = south).
Last letter identifies tank (N = north tank, M = middle tank, S = south tank).
For example, "EXNEN" indicates excavation, northeast part of sidewall, near north tank.

(See Figure 2 for sample locations.)

Analyses performed by American Environmental Network, Pleasant Hill, California.

TABLE 3
CONFIRMATION SOIL SAMPLING ANALYSIS RESULTS
UST REMOVAL
625 HEGENBERGER ROAD, OAKLAND, CALIFORNIA
(concentrations reported in milligrams per kilogram [mg/kg])

Sample ID	Date	Cadmium	Nickel	Chromium	Zinc	VOCs	SVOCs
SP2	21-Oct-93	0.2	33	32	75	(1)	(2)
SP3	21-Oct-93	0.2	32	31	160	(3)	(4)
	TTLC:	100	2000	2500	5000	---	---

Data entered by MEK/30 Nov 93 Data proofed by SMH QA/QC by SMH

(1) Toluene detected at 0.550 mg/kg, and total xylenes detected at 38 mg/kg.
(2) 2-Methylnaphthalene detected at 10 mg/kg, and napthalene detected at 12 mg/kg.
(3) Total xylenes detected at 41 mg/kg.
(4) 2-Methylnaphthalene detected at 9 mg/kg, and napthalene detected at 8.6 mg/kg.

Toluene, xylenes, 2-methylnaphthalene, and naphthalene detections due to presence of gasoline hydrocarbons. All other VOCs and SVOCs were below detection limits.

VOCs = Volatile organic compounds. Includes chlorinated solvents.
SVOCs = Semivolatile organic compounds.

TTLC = State of California total threshold limit concentration
(Source: California Code of Regulations, Title 22)

Cadmium, chromium, nickel, and zinc by EPA Method 6010
VOCs by EPA Method 8240
SVOCs by EPA Method 8270

Analyses performed by American Environmental Network, Pleasant Hill, California.

TABLE 4
GROUND-WATER SAMPLING ANALYSIS RESULTS
UST REMOVAL
625 HEGENBERGER ROAD, OAKLAND, CALIFORNIA
(concentrations reported in milligrams per liter [mg/l])

Sample ID	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd	TPHo	Oil & Grease	Organic Lead	Total Lead
EX-GW1	21-Oct-93	14	10	2.5	14	120	<0.05	30	74	<0.1	0.2
EX-GW2	21-Oct-93	15	11	2.6	14	95	<0.05	15	66	<0.1	0.3

Data entered by MEK/12 Nov 93 Data proofed by SMH QA/QC by SMH

TPHg - Total petroleum hydrocarbons as gasoline by EPA Method 5030, GCFID
TPHd - Total petroleum hydrocarbons as diesel by EPA Method 3510, GCFID
TPHo - Total petroleum hydrocarbons as oil by EPA Method 3510, GCFID
Oil and grease by Standard Method 5520 F
Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8020
Total lead by EPA Method 7420
Organic lead by DHS Method

Analyses performed by American Environmental Network, Pleasant Hill, California.

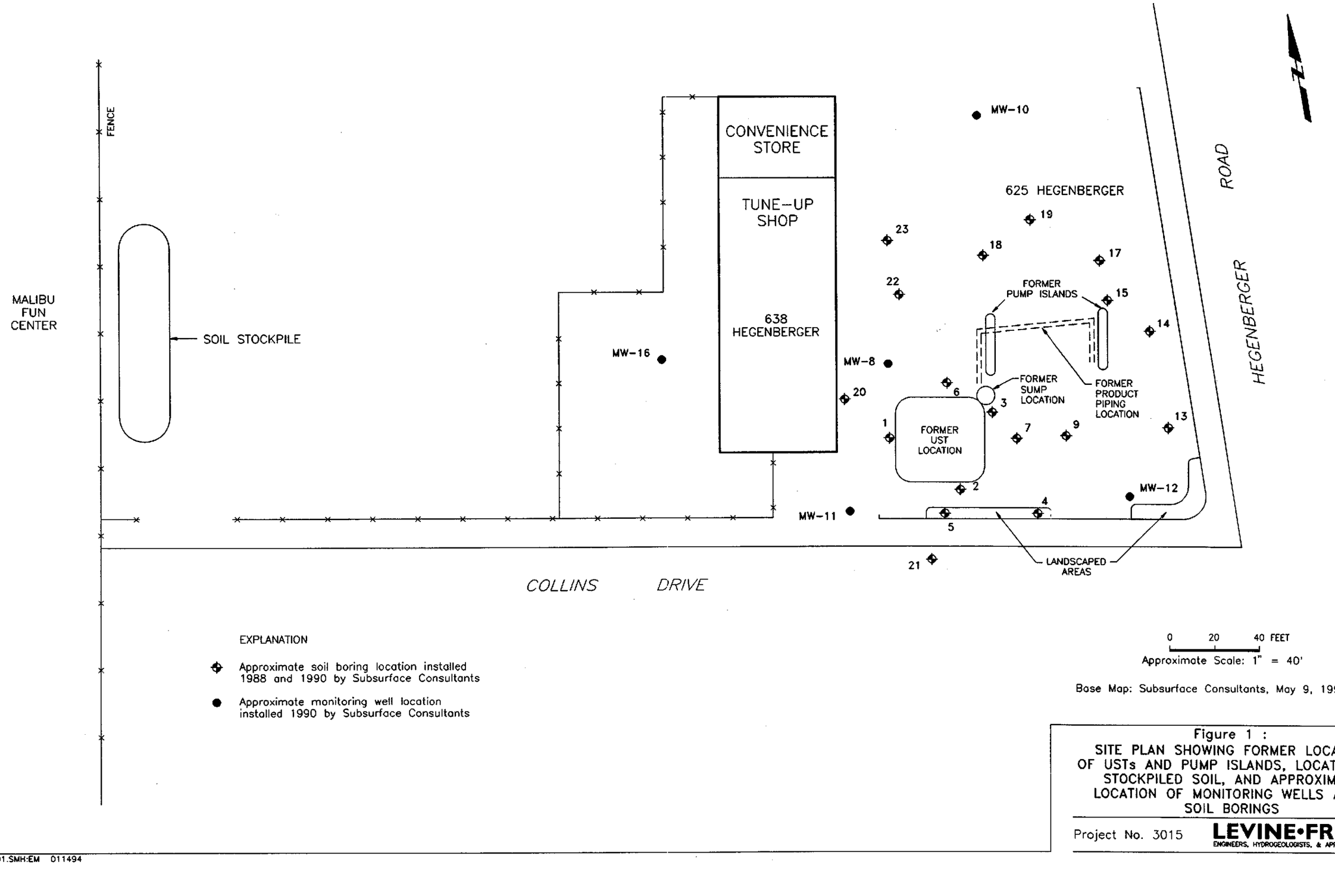

Figure 1 :
SITE PLAN SHOWING FORMER LOCATION OF USTs AND PUMP ISLANDS, LOCATION OF STOCKPILED SOIL, AND APPROXIMATE LOCATION OF MONITORING WELLS AND SOIL BORINGS

Project No. 3015

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3015B001.SMH:EM 011494

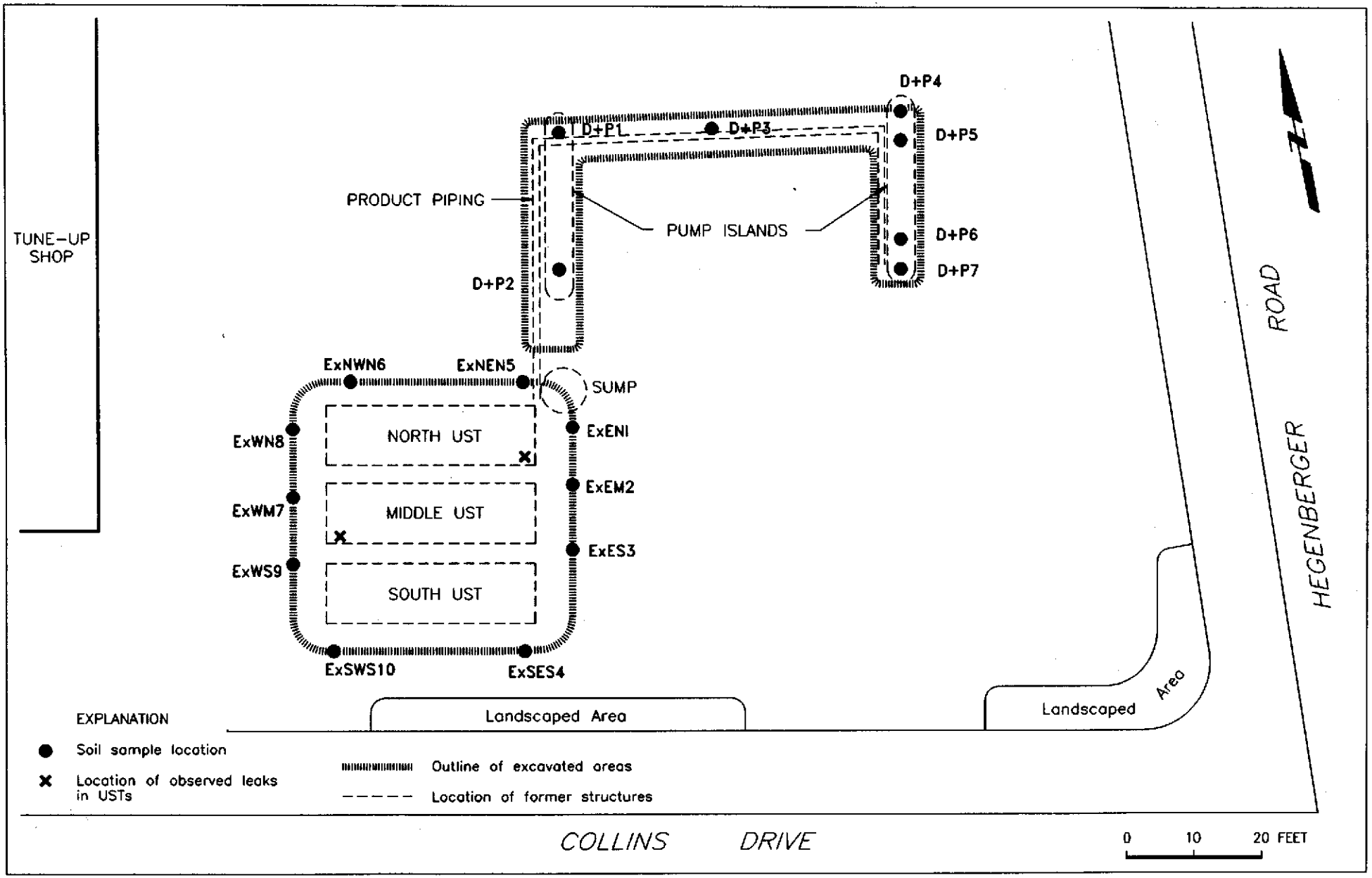

Figure 2 : SITE PLAN SHOWING APPROXIMATE SOIL SAMPLE LOCATIONS AND LOCATION OF OBSERVED LEAKS IN USTs

Project No. 3015

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3015B002.SMH:EM 011494

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 Cont
Sacramento, California

92221061

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

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAC000698616210 Manifest Document No. 92221061 2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address
DINESH MANIAR
400 Oyster Pt. Blvd. #415, So. San Francisco, CA. 94080

4. Generator's Phone (415) 266-8080 94080

5. Transporter 1 Company Name: H & H Ship Service Company
6. US EPA ID Number: CAD004771116

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

9. Designated Facility Name and Site Address
PRC PATTERSON, INC.
13331 N. Highway 33
Patterson, CA. 95363
10. US EPA ID Number: CAD083166728

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
a. OIL AND WATER NON-RCRA HAZARDOUS WASTE LIQUID	001	TT	04000	G
b.				
c.				
d.				

Petroleum Recycling Corporation certifies that the above mentioned waste(s), more specifically identified by reference to the ~~said~~ manifest set forth above, Was were recycled in accordance with the provisions of 40CFR261.6 and 23.4 pursuant to 40CFR261.3(c)(2) hazardous waste generated from the recycling efforts was also ~~recycled in accordance with the provision of 40CFR266 Subpart D.~~

PETROLEUM RECYCLING CORPORATION

15. Special Handling Instructions and Additional Information
JOB #13480
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

JOB SITE: DINESH MANIAR
625 Hegenberger Road
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	Signature	Month	Day	Year
G J [illegible]		10	22	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
MARTIN J. COSTELLO		10	22	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space
[illegible]

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
GLENN SHIPMAN		10	26	93

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for treatment out-of-state, produce copies of the copy and send to DTSC within 30 days.)

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

92221035

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

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CAC000698616	21035	of 1	

3. Generator's Name and Mailing Address
DINESH MANIAR
400 Oyster Pt. Blvd. #415, So. San Francisco, CA. 94080

4. Generator's Phone (415) 266-8080 94080

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
PRC PATTERSON, INC.
13331 N. Highway 33
Patterson, CA. 95363

10. US EPA ID Number: CAD083166728

[redacted]

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
OIL AND WATER NON-RCRA HAZARDOUS WASTE LIQUID	001	TT	01200	G

GENERATOR

Petroleum Recycling Corporation certifies that the above mentioned waste(s), more specifically identified by reference to the waste manifest set forth above, Was were recycled in accordance with the provisions of 40CFR261.6 and 23.4 pursuant to 40CFR261.3(c)(2) hazardous waste generated from the recycling efforts was also recycled in accordance with the provision of 40CFR266 Subpart D.

PETROLEUM RECYCLING CORPORATION

[redacted]

15. Special Handling Instructions and Additional Information
JOB #13480
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

JOB SITE: DINESH MANIAR
625 Hegenberger Road
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	Signature	Month	Day	Year
G. JAUREGUI FOR GOLDEN WEST	G Jauregui	10	20	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
ROBERT V. PETRUCCI	Robert V. Petrucci	10	20	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space
Actual gallons [illegible] WT 1042

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
Glenn Shipman	[signature]	10	25	93

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (12/91)
EPA 8700—22

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

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) writer.*

See Instructions on back of page 6.

Department of Toxic Substances Cont
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
C A C 0 0 0 6 9 8 6 1 6	0 0 0 0 3		

92221049

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

GENERATOR

3. Generator's Name and Mailing Address
DINESH MANIAR
400 Oyster Pt. Blvd. #415, So. San Francisco, CA. 94080

4. Generator's Phone (415) 266-8080

5. Transporter 1 Company Name — 6. US EPA ID Number
H & H SHIP SERVICE COMPANY — C A D 0 0 4 7 7 1 1 6 8

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

9. Designated Facility Name and Site Address — 10. US EPA ID Number
H & H Ship Service Company
220 China Basin Street
San Francisco, CA. 94107 — C A D 0 0 4 7 7 1 1 6 8

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
RESIDUE GASOLINE TANK NON-RCRA HAZARDOUS WASTE SOLID	0 0 1	T P	1 2 0 0 0	P
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
JOB #13485
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

JOB SITE: DINESH MANIAR
625 Hegenberger Road
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	Signature	Month	Day	Year
		1 0	2 1	9 3

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
MARTIN J. COSTELLO		1 0	2 1	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	Signature	Month	Day	Year
LOURDES B LOPEZ		1 0	2 1	9 3

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (12/91)
EPA 8700—22

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generator's copy if the hazardous waste for transport out-of-state, producer retains a copy of this copy and sends to DTSC within 30 days.)

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.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
C A C 0 0 0 6 9 8 6 1 6	0 0 0 0 2		

92221048

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

GENERATOR

3. Generator's Name and Mailing Address
DINESH MANIAR
400 Oyster Pt. Blvd. #415, So. San Francisco, CA. 94080

4. Generator's Phone (415) 266-8080

A. State Manifest Document Number 92221048
B. State Generator's ID
C. State Transporter's ID
D. Transporter's Phone
E. State Transporter's ID
F. Transporter's Phone
G. State Facility's ID
H. Facility's Phone

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

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

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

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
RESIDUE GASOLINE TANK NON-RCRA HAZARDOUS WASTE SOLID	0 0 1	T P	1 2 0 0 0	P
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
JOB #13485
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

JOB SITE: DINESH MANIAR
625 Hegenberger Road
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	Signature	Month	Day	Year
		1 0	2 1	9 3

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JIMMIE H. REESE		1 0	2 1	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	Signature	Month	Day	Year
LOURDES B LOPEZ		1 0	2 1	9 3

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (12/91)
EPA 8700—22

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
Generators who submit hazardous waste for transport out of state, or for export [illegible]

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 Contr
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CAC000698616	0001		

GENERATOR

3. Generator's Name and Mailing Address
DINESH MANIAR
400 Oyster Pt. Blvd. #415, So. San Francisco, CA. 94080

4. Generator's Phone (415) 266-8080

5. Transporter 1 Company Name	6. US EPA ID Number
H & H SHIP SERVICE COMPANY	CAD004771168

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

9. Designated Facility Name and Site Address	10. US EPA ID Number
H & H Ship Service Company 220 China Basin Street San Francisco, CA. 94107	CAD004771168

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
RESIDUE GASOLINE TANK NON-RCRA HAZARDOUS WASTE SOLID	001	TP	12000	P
b.				
c.				
d.				

J. Additional Descriptions for Materials Listed Above
EMPTY
GASOLINE
CONTAINER
PROPERLY LABELED

15. Special Handling Instructions and Additional Information
JOB #13485
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

JOB SITE: DINESH MANIAR
625 Hegenberger Road
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	Signature	Month	Day	Year
		10	21	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
EDUARDO M. PENALVER		10	21	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name	Signature	Month	Day	Year
LOURDES B LOPEZ		10	21	93

DO NOT WRITE BELOW THIS LINE.

TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
Generator: You must hazardous waste for transport out-of-state, [illegible] copy of this copy and send to DTSC within 30 days.

DTSC 8022A (12/91)
EPA 8700—22

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

92221047

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 94523-001

LEVINE-FRICKE
1900 POWELL ST., 12TH FLOOR
EMERYVILLE, CA 94608

ATTN: SUSAN HENRY

CLIENT PROJ. ID: 3015.05
C.O.C. SERIAL NO: 8905
PROJ. NAME: DIVERSIFIED INVEST

REPORT DATE: 11/22/93

DATE SAMPLED: 10/21/93

DATE RECEIVED: 10/22/93

AEN JOB NO: 9310219

PROJECT SUMMARY:

On October 22, 1993, this laboratory received two (2) water samples.

Client requested samples be analyzed for inorganic and organic parameters. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
General Manager

Results FAXed 11/04/93
Revision of report dated 11/15/93 to included oil results as requested by client.

LEVINE-FRICKE

SAMPLE ID: EX-GW1
AEN LAB NO: 9310219-01
AEN WORK ORDER: 9310219
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Water	DOHS-LUFT	ND	0.1	mg/L	11/03/93
BTEX & Gasoline HCs(Water)	EPA 8020				
Benzene	71-43-2	14,000 *	0.5	ug/L	10/29/93
Toluene	108-88-3	10,000 *	0.5	ug/L	10/29/93
Ethylbenzene	100-41-4	2,500 *	0.5	ug/L	10/29/93
Xylenes, Total	1330-20-7	14,000 *	2	ug/L	10/29/93
Purgeable HCs as Gasoline	5030/GCFID	120 *	0.05	mg/L	10/29/93
#Extraction for Diesel/Oil	EPA 3510	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	ND	2	mg/L	11/01/93
TPH as Oil	GC-FID	30 *	0.2	mg/L	11/02/93
#Water Extrn for TOG/TRPH	SM 5520B/CF	-		Extrn Date	11/01/93
Hydrocarbons	SM 5520F	74 *	0.5	mg/L	11/01/93
Lead	EPA 7420	0.2 *	0.1	mg/L	10/27/93
#Digestion - water		-		Prep Date	10/26/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EX-GW2
AEN LAB NO: 9310219-02
AEN WORK ORDER: 9310219
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Water	DOHS-LUFT	ND	0.1	mg/L	11/03/93
BTEX & Gasoline HCs(Water)	EPA 8020				
Benzene	71-43-2	15,000 *	0.5	ug/L	10/29/93
Toluene	108-88-3	11,000 *	0.5	ug/L	10/29/93
Ethylbenzene	100-41-4	2,600 *	0.5	ug/L	10/29/93
Xylenes, Total	1330-20-7	14,000 *	2	ug/L	10/29/93
Purgeable HCs as Gasoline	5030/GCFID	95 *	0.05	mg/L	10/29/93
#Extraction for Diesel/Oil	EPA 3510	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	ND	2	mg/L	11/01/93
TPH as Oil	GC-FID	15 *	0.2	mg/L	11/02/93
#Water Extrn for TOG/TRPH	SM 5520B/CF	-		Extrn Date	11/01/93
Hydrocarbons	SM 5520F	66 *	0.5	mg/L	11/01/93
Lead	EPA 7420	0.3 *	0.1	mg/L	10/27/93
#Digestion - water		-		Prep Date	10/26/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

DATE EXTRACTED: 11/01/93
DATE ANALYZED: 11/01/93
CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310219
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: IR

IR DETERMINATION FOR OIL & GREASE/HYDROCARBONS
METHOD SPIKE RECOVERY SUMMARY
(WATER MATRIX)

ANALYTE	Spike Conc. (mg/L)	Sample Result (mg/L)	MS Result (mg/L)	MSD Result (mg/L)	Average Percent Recovery	RPD
Oil	6.35	ND	6.35	6.21	98.9	2.2

CURRENT QC LIMITS (Revised 10/25/93)

Analyte	Percent Recovery	RPD
Oil	(83-107)	5

METHOD BLANK RESULT

Lab Id.	Hydrocarbons (mg/L)
110193-METHOD BLANK	ND

Reporting Limit: 0.5
Method: SM5520F
Instrument: IR
Date Extracted: 11/01/93
Date Analyzed: 11/01/93

MS = Method Spike
MSD = Method Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 10/22/93
DATE ANALYZED: 10/25/93
CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310219
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: C

METHOD SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATERS
METHOD: EPA 3510 GCFID

ANALYTE	Spike Conc. (mg/L)	Sample Result (mg/L)	MS Result (mg/L)	MSD Result (mg/L)	Average Percent Recovery	RPD
Diesel	2.04	ND	1.66	1.87	87.0	6.2

CURRENT QC LIMITS (Revised 10/18/93)

Analyte	Percent Recovery	RPD
Diesel	(55-119)	8

METHOD BLANK RESULT

Lab Id.	Extractable Hydrocarbons as Diesel (mg/L)	Extractable Hydrocarbons as Oil (mg/L)
102593-METHOD BLANK	ND	ND
Reporting Limit:	0.05	0.2

Method: 3510 GCFID
Instrument: C
Date Extracted: 10/25/93
Date Analyzed: 11/02/93

MS = Method Spike
MSD = Method Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

INSTRUMENT: F

CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310219
AEN LAB NO: 1029-BLANK
DATE ANALYZED: 10/29/93

BTEX AND HYDROCARBONS (METHOD BLANK)
METHOD: EPA 8020, 5030 GCFID
(WATER MATRIX)

	CAS #	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2
PURGEABLE HYDROCARBONS AS:			
Gasoline		ND mg/L	0.05 mg/L

ND = Not Detected

QUALITY CONTROL DATA

CLIENT PROJ. ID: 3015.05 AEN JOB NO: 9310219

INSTRUMENT: F

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8020
(WATER MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION Client Id.	Lab Id.	SURROGATE RECOVERY (PERCENT) Fluorobenzene
10/29/93	EX-GW1	01	91.2
10/29/93	EX-GW2	02	91.2
10/29/93		1029-BLANK	92.1

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Fluorobenzene	(70-115)

QUALITY CONTROL DATA

DATE ANALYZED: 10/27/93
SAMPLE SPIKED: 9310190-03
CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310219
INSTRUMENT: F

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8020, 5030 GCFID
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Sample Result (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	Average Percent Recovery	RPD
Benzene	9.5	ND	8.6	9.4	94.7	8.8
Toluene	35.7	ND	33.4	36.2	97.5	8.0
Hydrocarbons as Gasoline	500	ND	445	498	94.3	11.2

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Benzene	(81.4-115.3)	10.2
Toluene	(85.3-112.4)	9.4
Gasoline	(72.0-119.4)	12.3

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9310219

CLIENT PROJ. ID: 3015.05

MATRIX SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	SAMPLE SPIKED	SAMPLE RESULT	SPIKE ADDED	OBSERVED RECOVERIES (mg/L) MS	MSD	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Organic Lead	V22/DHS	9310239-05	ND	1.0	0.962	0.948	96	1	75-125	20

MS = Matrix Spike
MSD = Matrix Spike Duplicate

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE	OBSERVED RECOVERIES (mg/L) MS	MSD	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Organic Lead	V22/DHS	ND	1.0	0.972	0.951	96	2	75-125	20
Total Lead	V22/7420	ND	4.0	3.81	3.76	95	1	75-125	20

MS = Method Spike
MSD = Method Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

*** END OF REPORT ***

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.:	Field Logbook No.:	Date: 10-21-15	Serial No.: 8915
Project Name: 3015.05	Project Location: Oakland		
Sampler (Signature):			Samplers:

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601						HOLD	RUSH	REMARKS
1	10/21	12	01A-E	5	H_2O	X	X	X	X	X	X			
2	10/21	13	02A-E	5	H_2O	X	X	X	X	X	X			
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]									

RELINQUISHED BY: (Signature)	DATE 10-21-15	TIME 09:10	RECEIVED BY: (Signature)	DATE 10-22-15	TIME [illegible]
RELINQUISHED BY: (Signature)	DATE 10-22-15	TIME [illegible]	RECEIVED BY: (Signature)	DATE [illegible]	TIME [illegible]
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
(415) 652-4500

Analytical Laboratory: AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

LEVINE-FRICKE
1900 POWELL ST., 12TH FLOOR
EMERYVILLE, CA 94608

ATTN: SUSAN HENRY

CLIENT PROJ. ID: 3015.05
C.O.C. SERIAL NO: 8875,8876
PROJ. NAME: DIVERSIFIED TANK PULL

REPORT DATE: 01/14/94

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93

ADDITIONAL ANALYSIS
REQUESTED: 12/14/93

AEN JOB NO: 9312167

COPY

PROJECT SUMMARY:

On December 14, 1993, client requested additional analysis on four (4) soil samples received by this laboratory on October 22, 1993.

Client requested the samples be extracted by the California Waste Extraction Test and the extracts be analyzed for Lead. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
General Manager

Results FAXed 12/23/93

RECEIVED
JAN 18
LEVINE-FRICKE

LEVINE-FRICKE

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
CLIENT PROJ. ID: 3015.05

REPORT DATE: 01/14/94

AEN JOB NO: 9312167

Client Sample Id.	AEN Lab Id.	Lead (mg/L)
D&P3	01A	5.0
D&P4	02A	4.7
D&P5	03A	3.6
EXEM2	04A	1.3
Reporting Limit		0.1

EPA Method: 7420

Instrument: V22

Date Analyzed: 12/22/93

QUALITY CONTROL DATA

CLIENT PROJ. ID: 3015.05 AEN JOB NO: 9312167

METHOD BLANK RESULTS FOR WASTE EXTRACTION TEST

CODE	METAL	CONCENTRATION (mg/L)	STLC (mg/L)	REPORTING LIMIT (mg/L)	METHOD REFERENCE	INST.
Pb	Lead	ND	5.0	0.1	7420	V22

ND = Not Detected

INST. = Instrument Number

STLC = Soluble Threshold Limit Concentration

Date Analyzed: 12/22/93

*** END OF REPORT ***

R-4, S-E

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9312167
~~9310218~~

Project No.: 3015.05	Field Logbook No.:	Date: 10-21-93	Serial No.: 8875
Project Name: Diversified Tank Pull	Project Location: 625 Hegenberger		
Sampler (Signature): Susan M. Henry			Samplers: Susan Henry; Shellie Fletcher

ANALYSES

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPHg ~~8015~~ 8015	TPHd ~~8015~~ 8015	BTEX 8020	Oil & Grease 5520F	Total Lead 7421	Organic Lead DHS	8240 ~~8010~~ HOLD	8270 METALS (Pb Cd Ni Cr Zn) HOLD	REMARKS
SP1	10-21-93		01A	1	Soil	✓	✓	✓	✓	✓	✓			
SP2			02A	1		✓	✓	✓	✓	✓	✓	X	X	Note, for SP1, SP2, SP3,
SP3			03A	1		✓	✓	✓	✓	✓	✓	X	X	SP4, SP5, SP6: Ignore the
SP4			04A	1		✓	✓	✓	✓	✓	✓			analyses written on labels.
SP5			05A	1		✓	✓	✓	✓	✓	✓			Do those requested here.
SP6			06A	1		✓	✓	✓	✓	✓	✓			For every sample do:
D&P1			07A	1		✓	✓	✓	✓	✓	✓			TPHg - 8015
D&P2			08A	1		✓	✓	✓	✓	✓	✓			TPHd - 8015
D&P3			~~09A~~ 01A	1		✓	✓	✓	✓	✓	✓			BTEX - 8020
D&P4			~~10A~~ 02A	1		✓	✓	✓	✓	✓	✓			Oil & Grease - 5520F
D&P5			~~11A~~ 03A	1		✓	✓	✓	✓	✓	✓			Total Lead - 7421
D&P6			12A	1		✓	✓	✓	✓	✓	✓			Organic Lead - DHS
D&P7			13A	1		✓	✓	✓	✓	✓	✓			← D&P7 is pea gravel wet with gasoline!
														Normal Turn
Note: SP = Stock Pile				Per client 11/22 - analyze D&P6 for STLC Pb on rush TAT - DSH										FAX results to Sue Henry
D&P = Dispenser & Piping														Questions? call Sue Henry

RELINQUISHED BY: (Signature) Susan M. Henry	DATE 10-22-93	TIME 09:10	RECEIVED BY: (Signature) [signature]	DATE 10-22-93	TIME 09:10
RELINQUISHED BY: (Signature) [signature]	DATE 10-22-93	TIME 09:50	RECEIVED BY: (Signature) Gina Gillespie	DATE 10-22-93	TIME 0950
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS: 12/14/93 add WET Pb to D&P3, D&P4, D&P5, EXEM2 on standard TAT RB		

Sample Collector: LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
(415) 652-4500

Analytical Laboratory: AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

9312167
~~9310218~~

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 3015.05	Field Logbook No.:	Date: 10-21-93	Serial No.: 8876
Project Name: Diversified Tank Pull	Project Location: 625 Hegenberger		
Sampler (Signature): Susan M Henry			

SAMPLES						ANALYSES								Samplers:
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPHg Extr 3015	TPHg 8015	BTEX 8020	Oil & Grease 5520 F	Total Lead 7421	Organic Lead DHS	HOLD	RUSH	REMARKS
EXEN1	10-21-93		14A	1	Soil	✓	✓	✓	✓	✓	✓			For every sample do:
EXEM2			~~15A~~ 04A	1		✓	✓	✓	✓	✓	✓			TPHg - 8015
EXES3			16A	1		✓	✓	✓	✓	✓	✓			TPHd - 8015
EXSES4			17A	1		✓	✓	✓	✓	✓	✓			BTEX - 8020
EXNEN5			18A	1		✓	✓	✓	✓	✓	✓			Oil & Grease - 5520 F
EXNWN6			19A	1		✓	✓	✓	✓	✓	✓			Total Lead - 7421
EXWM7			20A	1		✓	✓	✓	✓	✓	✓			Organic Lead - DHS
EXWN8			21A	1		✓	✓	✓	✓	✓	✓			
EXWS9			22A	1		✓	✓	✓	✓	✓	✓			
EXSWS10			23A	1		✓	✓	✓	✓	✓	✓			FAX results to Sue Henry
														Questions? Call Sue Henry
														Normal Turn
														Cancel 17A → 23A for 5520F
														Per SUE Henry

Note: Ex = Excavation. All samples taken at ≈ 8' bgs into native soil.
E = East; W = West; N = North; S = South; M = Middle.
These sample names represent locations around the sidewalls of an excavation.

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
Susan M Henry 10-22-93	10-22-93	07:10		10-22-93	07:10
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
	10-22-93	09:50	Lynn Gillespie	10-22-93	0950
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:
LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
(415) 652-4500

Analytical Laboratory:
AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 94523-001

LEVINE-FRICKE
1900 POWELL ST., 12TH FLOOR
EMERYVILLE, CA 94608

ATTN: SUSAN HENRY

CLIENT PROJ. ID: 3015.05
C.O.C. SERIAL NO: 8875,8876
PROJ. NAME: DIVERSIFIED TANK PULL

REPORT DATE: 11/29/93

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93

ADDITIONAL ANALYSIS
REQUESTED: 11/04,22/93

AEN JOB NO: 9310218

PROJECT SUMMARY:

On October 22, 1993, this laboratory received twenty-three (23) soil samples.

Client requested samples be analyzed for inorganic and organic parameters. On November 4, 1993, client requested additional analysis on two (2) samples for inorganic and organic parameters. On November 12, 1993, client requested additional analysis on one (1) soil sample to be extracted by the California Waste Extraction Test and the extract be analyzed for Lead content. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
General Manager

Results FAXed 11/02-28/93

LEVINE-FRICKE

SAMPLE ID: D&P6
AEN LAB NO: 9310218-12
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	ND	5	ug/Kg	11/04/93
Toluene	108-88-3	ND	5	ug/Kg	11/04/93
Ethylbenzene	100-41-4	ND	5	ug/Kg	11/04/93
Xylenes, Total	1330-20-7	ND	5	ug/Kg	11/04/93
Purgeable HCs as Gasoline	5030/GCFID	ND	0.2	mg/Kg	11/04/93
#CA Waste Extraction	CA Title 22	-		Extrn Date	11/22/93
Lead in WET Extract	EPA 7420	6.0 *	0.1	mg/L	11/24/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	ND	6	mg/kg	10/27/93
TPH as Oil	GC-FID	190 *	5	mg/kg	10/27/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons	SM 5520F	390 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	130 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

MATRIX: STLC

AEN JOB NO: 9310218

CLIENT PROJ. ID: 3015.05

METHOD BLANK RESULTS FOR WASTE EXTRACTION TEST

CODE	METAL	CONCENTRATION (mg/L)	STLC (mg/L)	REPORTING LIMIT (mg/L)	METHOD REFERENCE	INST.
Pb	Lead	ND	5.0	0.1	7420	V22

ND = Not Detected

INST. = Instrument Number

STLC = Soluble Threshold Limit Concentration

Date Extracted: 11/22/93

*** END OF REPORT ***

R-4, S-E

9310218

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 3015.05	Field Logbook No.:	Date: 10-21-93	Serial No.: 8875
Project Name: Diversified Tank Pull	Project Location: 625 Hegenberger		
Sampler (Signature): Susan M. Henry			Samplers: Susan Henry; Shellie Fletcher

SAMPLES						ANALYSES									
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPHg 8015	TPHd 8015	BTEX 8020	Oil&Grease 5520F	Total Lead 7421	Organic Lead DHS	8240		REMARKS
SP1	10-21-93		01A	1	Soil	✓	✓	✓	✓	✓	✓			
SP2			02A	1		✓	✓	✓	✓	✓	✓	X	X	Note, for SP1, SP2, SP3,
SP3			03A	1		✓	✓	✓	✓	✓	✓	X	X	SP4, SP5, SP6: Ignore the
SP4			04A	1		✓	✓	✓	✓	✓	✓			analyses written on labels.
SP5			05A	1		✓	✓	✓	✓	✓	✓			Do those requested here.
SP6			06A	1		✓	✓	✓	✓	✓	✓			For every sample do:
DEP1			07A	1		✓	✓	✓	✓	✓	✓			TPHg - 8015
DEP2			08A	1		✓	✓	✓	✓	✓	✓			TPHd - 8015
DEP3			09A	1		✓	✓	✓	✓	✓	✓			BTEX - 8020
DEP4			10A	1		✓	✓	✓	✓	✓	✓			Oil&Grease - 5520F
DEP5			11A	1		✓	✓	✓	✓	✓	✓			Total Lead - 7421
DEP6			12A	1		✓	✓	✓	✓	✓	✓			Organic Lead - DHS
DEP7			13A	1		✓	✓	✓	✓	✓	✓			← DEP7 is pea gravel wet with gasoline!
														Normal Turn
Note: SP = Stockpile				Per client		11/22 - analyze D+P6 for								FAX results to Sue Henry
DEP = Dispenser st Piping				STLC Pb		on rush TAT - DSH								Questions? call Sue Henry

RELINQUISHED BY: (Signature) Susan M Henry	DATE 10-22-93	TIME 09:10	RECEIVED BY: (Signature)	DATE 10-22-93	TIME 09:10
RELINQUISHED BY: (Signature)	DATE 10-22-93	TIME 09:50	RECEIVED BY: (Signature) Gina Gillespie	DATE 10-22-93	TIME 0950
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:
LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
(415) 652-4500

Analytical Laboratory: AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9310218

Project No.: 3015.05	Field Logbook No.:	Date: 10-21-93	Serial No.: 8876
Project Name: Diversified Tank Pull	Project Location: 625 Hegenberger		
Sampler (Signature): Susan M Henry			Samplers:

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPHg Modified 8015	TPHd Modified 8015	BTEX 8020	Oil & Grease 5520F	Total Lead 7421	Organic Lead DHS	HOLD	RUSH	REMARKS
EXEN1	10-21-93		14A	1	Soil	✓	✓	✓	✓	✓	✓			For every sample do:
EXEM2			15A	1		✓	✓	✓	✓	✓	✓			TPHg - 8015
EXES3			16A	1		✓	✓	✓	✓	✓	✓			TPHd - 8015
EXSES4			17A	1		✓	✓	✓	✓	✓	✓			BTEX - 8020
EXNEN5			18A	1		✓	✓	✓	✓	✓	✓			Oil & Grease - 5520 F
EXNWN6			19A	1		✓	✓	✓	✓	✓	✓			Total Lead - 7421
EXWM7			20A	1		✓	✓	✓	✓	✓	✓			Organic Lead - DHS
EXWN8			21A	1		✓	✓	✓	✓	✓	✓			
EXWS9			22A	1		✓	✓	✓	✓	✓	✓			
EXSWS10			23A	1		✓	✓	✓	✓	✓	✓			FAX results to Sue Henry
														Questions? Call Sue Henry
														Normal Turn
														Cancel 17A → 23A for 5520F
														Per Sue Henry

Note = Ex = Excavation. All samples taken at ≈ 8' bgs into native soil.
E = East; W = West; N = North; S = South; M = Middle.
These sample names represent locations around the sidewalls of an excavation.

RELINQUISHED BY: (Signature) Susan M Henry	DATE 10-22-93	TIME 09:10	RECEIVED BY: (Signature)	DATE 10-22-93	TIME 09:10
RELINQUISHED BY: (Signature)	DATE 10-22-93	TIME 09:50	RECEIVED BY: (Signature) Ozma Gillespie	DATE 10-22-93	TIME 0950
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:
LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
(415) 652-4500

Analytical Laboratory: AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 94523-001

LEVINE-FRICKE
1900 POWELL ST., 12TH FLOOR
EMERYVILLE, CA 94608

ATTN: SUSAN HENRY

CLIENT PROJ. ID: 3015.05
C.O.C. SERIAL NO: 8875,8876
PROJ. NAME: DIVERSIFIED TANK PULL

REPORT DATE: 11/22/93

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93

ADDITIONAL ANALYSIS
REQUESTED: 11/04/93

AEN JOB NO: 9310218

PROJECT SUMMARY:

On October 22, 1993, this laboratory received twenty-three (23) soil samples.

Client requested samples be analyzed for inorganic and organic parameters. On November 4, 1993, client requested additional analysis on two (2) samples for inorganic and organic parameters. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

Report for STLC Lead will follow at a later date.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
General Manager

Results FAXed 11/02-12/93

LEVINE-FRICKE

SAMPLE ID: SP1
AEN LAB NO: 9310218-01
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	1.6 *	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	ND	200	ug/Kg	11/03/93
Toluene	108-88-3	2,000 *	200	ug/Kg	11/03/93
Ethylbenzene	100-41-4	2,800 *	200	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	76,000 *	200	ug/Kg	11/02/93
Purgeable HCs as Gasoline	5030/GCFID	1,100 *	0.2	mg/Kg	11/02/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	140 *	1	mg/kg	10/26/93
TPH as Oil	GC-FID	900 *	5	mg/kg	10/26/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	1,400 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	29 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: SP2
AEN LAB NO: 9310218-02
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	9.1 *	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	400 *	5	ug/Kg	11/02/93
Toluene	108-88-3	6,200 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	7,400 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	65,000 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	990 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	ND	20	mg/kg	11/02/93
TPH as Oil	GC-FID	11,000 *	5	mg/kg	11/02/93
VOCs in Soil by EPA 8240	EPA 8240				
Acetone	67-64-1	ND	10000	ug/Kg	11/11/93
Benzene	71-43-2	ND	500	ug/Kg	11/11/93
Bromodichloromethane	75-27-4	ND	500	ug/Kg	11/11/93
Bromoform	75-25-2	ND	500	ug/Kg	11/11/93
Bromomethane	74-83-9	ND	1000	ug/Kg	11/11/93
2-Butanone	78-93-3	ND	10000	ug/Kg	11/11/93
Carbon Disulfide	75-15-0	ND	1000	ug/Kg	11/11/93
Carbon Tetrachloride	56-23-5	ND	500	ug/Kg	11/11/93
Chlorobenzene	108-90-7	ND	500	ug/Kg	11/11/93
Chloroethane	75-00-3	ND	1000	ug/Kg	11/11/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	1000	ug/Kg	11/11/93
Chloroform	67-66-3	ND	500	ug/Kg	11/11/93
Chloromethane	74-87-3	ND	1000	ug/Kg	11/11/93
Dibromochloromethane	124-48-1	ND	500	ug/Kg	11/11/93
1,1-Dichloroethane	75-34-3	ND	500	ug/Kg	11/11/93
1,2-Dichloroethane	107-06-2	ND	500	ug/Kg	11/11/93
1,1-Dichloroethene	75-35-4	ND	500	ug/Kg	11/11/93
cis-1,2-Dichloroethene	156-59-2	ND	500	ug/Kg	11/11/93
trans-1,2-Dichloroethene	156-60-5	ND	500	ug/Kg	11/11/93
1,2-Dichloropropane	78-87-5	ND	500	ug/Kg	11/11/93
cis-1,3-Dichloropropene	10061-01-5	ND	500	ug/Kg	11/11/93
trans-1,3-Dichloropropene	10061-02-6	ND	500	ug/Kg	11/11/93
Ethylbenzene	100-41-4	ND	500	ug/Kg	11/11/93
2-Hexanone	591-78-6	ND	5000	ug/Kg	11/11/93
Methylene Chloride	75-09-2	ND	500	ug/Kg	11/11/93
4-Methyl-2-pentanone	108-10-1	ND	5000	ug/Kg	11/11/93

LEVINE-FRICKE

SAMPLE ID: SP2
AEN LAB NO: 9310218-02
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Styrene	100-42-5	ND	500	ug/Kg	11/11/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	500	ug/Kg	11/11/93
Tetrachloroethene	127-18-4	ND	500	ug/Kg	11/11/93
Toluene	108-88-3	550 *	500	ug/Kg	11/11/93
1,1,1-Trichloroethane	71-55-6	ND	500	ug/Kg	11/11/93
1,1,2-Trichloroethane	79-00-5	ND	500	ug/Kg	11/11/93
Trichloroethene	79-01-6	ND	500	ug/Kg	11/11/93
Vinyl Acetate	108-05-4	ND	5000	ug/Kg	11/11/93
Vinyl Chloride	75-01-4	ND	1000	ug/Kg	11/11/93
Xylenes, Total	1330-20-7	38,000 *	1000	ug/Kg	11/11/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	5,700 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	48 *	5	mg/kg	10/30/93
Cadmium	EPA 6010	0.2 *	0.1	mg/kg	11/10/93
Chromium	EPA 6010	32 *	1	mg/kg	11/10/93
Nickel	EPA 6010	33 *	1	mg/kg	11/10/93
Zinc	EPA 6010	75 *	1	mg/kg	11/10/93
#Extraction for BNAs	EPA 3550	-		Extrn Date	11/04/93
EPA 8270 - Soil matrix	EPA 8270				
Acenaphthene	83-32-9	ND	3300	ug/Kg	11/10/93
Acenaphthylene	208-96-8	ND	3300	ug/Kg	11/10/93
Anthracene	120-12-7	ND	3300	ug/Kg	11/10/93
Benzidine	92-87-5	ND	16000	ug/Kg	11/10/93
Benzoic Acid	65-85-0	ND	16000	ug/Kg	11/10/93
Benzo(a)anthracene	56-55-3	ND	3300	ug/Kg	11/10/93
Benzo(b)fluoranthene	205-99-2	ND	3300	ug/Kg	11/10/93
Benzo(k)fluoranthene	207-08-9	ND	3300	ug/Kg	11/10/93
Benzo(g,h,i)perylene	191-24-2	ND	3300	ug/Kg	11/10/93
Benzo(a)pyrene	50-32-8	ND	3300	ug/Kg	11/10/93
Benzyl Alcohol	100-51-6	ND	6600	ug/Kg	11/10/93
Bis(2-chloroethoxy)methane	111-91-1	ND	3300	ug/Kg	11/10/93
Bis(2-choroethyl) Ether	111-44-4	ND	3300	ug/Kg	11/10/93

LEVINE-FRICKE

SAMPLE ID: SP2
AEN LAB NO: 9310218-02
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Bis(2-chloroisopropyl) Ether	108-60-1	ND	3300	ug/Kg	11/10/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	3300	ug/Kg	11/10/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	3300	ug/Kg	11/10/93
Butylbenzyl Phthalate	85-68-7	ND	3300	ug/Kg	11/10/93
4-Chloroaniline	106-47-8	ND	6600	ug/Kg	11/10/93
2-Chloronapththalene	91-58-7	ND	3300	ug/Kg	11/10/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	3300	ug/Kg	11/10/93
Chrysene	218-01-9	ND	3300	ug/Kg	11/10/93
Dibenzo(a,h)anthracene	53-70-3	ND	3300	ug/Kg	11/10/93
Dibenzofuran	132-64-9	ND	3300	ug/Kg	11/10/93
D-n-butyl Phthalate	84-74-2	ND	3300	ug/Kg	11/10/93
1,2-Dichlorobenzene	95-50-1	ND	3300	ug/Kg	11/10/93
1,3-Dichlorobenzene	541-73-1	ND	3300	ug/Kg	11/10/93
1,4-Dichlorobenzene	106-46-7	ND	3300	ug/Kg	11/10/93
3,3'-Dichlorobenzidine	91-94-1	ND	6600	ug/Kg	11/10/93
Diethyl Phthalate	84-66-2	ND	3300	ug/Kg	11/10/93
Dimethyl Phthalate	131-11-3	ND	3300	ug/Kg	11/10/93
2,4-Dinitrotoluene	121-14-2	ND	3300	ug/Kg	11/10/93
2,6-Dinitrotoluene	606-20-2	ND	3300	ug/Kg	11/10/93
D-n-octyl Phthalate	117-84-0	ND	3300	ug/Kg	11/10/93
1,2-Diphenylhydrazine	122-66-7	ND	3300	ug/Kg	11/10/93
Fluoranthene	206-44-0	ND	3300	ug/Kg	11/10/93
Fluorene	86-73-7	ND	3300	ug/Kg	11/10/93
Hexachlorobenzene	118-74-1	ND	3300	ug/Kg	11/10/93
Hexachlorobutadiene	87-68-3	ND	3300	ug/Kg	11/10/93
Hexachlorocyclopentadiene	77-47-4	ND	3300	ug/Kg	11/10/93
Hexachloroethane	67-72-1	ND	3300	ug/Kg	11/10/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	3300	ug/Kg	11/10/93
Isophorone	78-59-1	ND	3300	ug/Kg	11/10/93
2-Methylnaphthalene	91-57-6	10,000 *	3300	ug/Kg	11/10/93
Naphthalene	91-20-3	12,000 *	3300	ug/Kg	11/10/93
2-Nitroaniline	88-74-4	ND	16000	ug/Kg	11/10/93
3-Nitroaniline	99-09-2	ND	16000	ug/Kg	11/10/93
4-Nitroaniline	100-01-6	ND	16000	ug/Kg	11/10/93
Nitrobenzene	98-95-3	ND	3300	ug/Kg	11/10/93
N-Nitrosodimethylamine	62-75-9	ND	3300	ug/Kg	11/10/93
N-Nitrosodiphenylamine	86-30-6	ND	3300	ug/Kg	11/10/93
N-Nitrosodi-n-propylamine	621-64-7	ND	3300	ug/Kg	11/10/93
Phenanthrene	85-01-8	ND	3300	ug/Kg	11/10/93
Pyrene	129-00-0	ND	3300	ug/Kg	11/10/93
1,2,4-Trichlorobenzene	120-82-1	ND	3300	ug/Kg	11/10/93
4-Chloro-3-methylphenol	59-50-7	ND	3300	ug/Kg	11/10/93
2-Chlorophenol	95-57-8	ND	3300	ug/Kg	11/10/93

LEVINE-FRICKE

SAMPLE ID: SP2
AEN LAB NO: 9310218-02
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4-Dichlorophenol	120-83-2	ND	3300	ug/Kg	11/10/93
2,4-Dimethylphenol	105-67-9	ND	3300	ug/Kg	11/10/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	16000	ug/Kg	11/10/93
2,4-Dinitrophenol	51-28-5	ND	16000	ug/Kg	11/10/93
2-Methylphenol	95-48-7	ND	3300	ug/Kg	11/10/93
4-Methylphenol	106-44-5	ND	3300	ug/Kg	11/10/93
2-Nitrophenol	88-75-5	ND	3300	ug/Kg	11/10/93
4-Nitrophenol	100-02-7	ND	16000	ug/Kg	11/10/93
Pentachlorophenol	87-86-5	ND	16000	ug/Kg	11/10/93
Phenol	108-95-2	ND	3300	ug/Kg	11/10/93
2,4,5-Trichlorophenol	95-95-4	ND	3300	ug/Kg	11/10/93
2,4,6-Trichlorophenol	88-06-2	ND	3300	ug/Kg	11/10/93

Elevated reporting limits for 8240 due to gasoline hydrocarbons. Sample results come from an extract made within holding times.

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: SP3
AEN LAB NO: 9310218-03
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	4.5 *	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	410 *	5	ug/Kg	11/02/93
Toluene	108-88-3	4,300 *	5	ug/Kg	11/02/93
Ethylbenzene	100-41-4	4,200 *	5	ug/Kg	11/02/93
Xylenes, Total	1330-20-7	120,000 *	5	ug/Kg	11/02/93
Purgeable HCs as Gasoline	5030/GCFID	1,400 *	0.2	mg/Kg	11/02/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	ND	20	mg/kg	11/02/93
TPH as Oil	GC-FID	2,900 *	5	mg/kg	11/02/93
VOCs in Soil by EPA 8240	EPA 8240				
Acetone	67-64-1	ND	10000	ug/Kg	11/11/93
Benzene	71-43-2	ND	500	ug/Kg	11/11/93
Bromodichloromethane	75-27-4	ND	500	ug/Kg	11/11/93
Bromoform	75-25-2	ND	500	ug/Kg	11/11/93
Bromomethane	74-83-9	ND	1000	ug/Kg	11/11/93
2-Butanone	78-93-3	ND	10000	ug/Kg	11/11/93
Carbon Disulfide	75-15-0	ND	1000	ug/Kg	11/11/93
Carbon Tetrachloride	56-23-5	ND	500	ug/Kg	11/11/93
Chlorobenzene	108-90-7	ND	500	ug/Kg	11/11/93
Chloroethane	75-00-3	ND	1000	ug/Kg	11/11/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	1000	ug/Kg	11/11/93
Chloroform	67-66-3	ND	500	ug/Kg	11/11/93
Chloromethane	74-87-3	ND	1000	ug/Kg	11/11/93
Dibromochloromethane	124-48-1	ND	500	ug/Kg	11/11/93
1,1-Dichloroethane	75-34-3	ND	500	ug/Kg	11/11/93
1,2-Dichloroethane	107-06-2	ND	500	ug/Kg	11/11/93
1,1-Dichloroethene	75-35-4	ND	500	ug/Kg	11/11/93
cis-1,2-Dichloroethene	156-59-2	ND	500	ug/Kg	11/11/93
trans-1,2-Dichloroethene	156-60-5	ND	500	ug/Kg	11/11/93
1,2-Dichloropropane	78-87-5	ND	500	ug/Kg	11/11/93
cis-1,3-Dichloropropene	10061-01-5	ND	500	ug/Kg	11/11/93
trans-1,3-Dichloropropene	10061-02-6	ND	500	ug/Kg	11/11/93
Ethylbenzene	100-41-4	ND	500	ug/Kg	11/11/93
2-Hexanone	591-78-6	ND	5000	ug/Kg	11/11/93
Methylene Chloride	75-09-2	ND	500	ug/Kg	11/11/93
4-Methyl-2-pentanone	108-10-1	ND	5000	ug/Kg	11/11/93

LEVINE-FRICKE

SAMPLE ID: SP3
AEN LAB NO: 9310218-03
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Styrene	100-42-5	ND	500	ug/Kg	11/11/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	500	ug/Kg	11/11/93
Tetrachloroethene	127-18-4	ND	500	ug/Kg	11/11/93
Toluene	108-88-3	ND	500	ug/Kg	11/11/93
1,1,1-Trichloroethane	71-55-6	ND	500	ug/Kg	11/11/93
1,1,2-Trichloroethane	79-00-5	ND	500	ug/Kg	11/11/93
Trichloroethene	79-01-6	ND	500	ug/Kg	11/11/93
Vinyl Acetate	108-05-4	ND	5000	ug/Kg	11/11/93
Vinyl Chloride	75-01-4	ND	1000	ug/Kg	11/11/93
Xylenes, Total	1330-20-7	41,000 *	1000	ug/Kg	11/11/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	2,700 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	49 *	5	mg/kg	10/30/93
Cadmium	EPA 6010	0.2 *	0.1	mg/kg	11/10/93
Chromium	EPA 6010	31 *	1	mg/kg	11/10/93
Nickel	EPA 6010	32 *	1	mg/kg	11/10/93
Zinc	EPA 6010	160 *	1	mg/kg	11/10/93
#Extraction for BNAs	EPA 3550	-		Extrn Date	11/04/93
EPA 8270 - Soil matrix	EPA 8270				
Acenaphthene	83-32-9	ND	1700	ug/Kg	11/10/93
Acenaphthylene	208-96-8	ND	1700	ug/Kg	11/10/93
Anthracene	120-12-7	ND	1700	ug/Kg	11/10/93
Benzidine	92-87-5	ND	8000	ug/Kg	11/10/93
Benzoic Acid	65-85-0	ND	8000	ug/Kg	11/10/93
Benzo(a)anthracene	56-55-3	ND	1700	ug/Kg	11/10/93
Benzo(b)fluoranthene	205-99-2	ND	1700	ug/Kg	11/10/93
Benzo(k)fluoranthene	207-08-9	ND	1700	ug/Kg	11/10/93
Benzo(g,h,i)perylene	191-24-2	ND	1700	ug/Kg	11/10/93
Benzo(a)pyrene	50-32-8	ND	1700	ug/Kg	11/10/93
Benzyl Alcohol	100-51-6	ND	3300	ug/Kg	11/10/93
Bis(2-chloroethoxy)methane	111-91-1	ND	1700	ug/Kg	11/10/93
Bis(2-choroethyl) Ether	111-44-4	ND	1700	ug/Kg	11/10/93

LEVINE-FRICKE

SAMPLE ID: SP3
AEN LAB NO: 9310218-03
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Bis(2-chloroisopropyl) Ether	108-60-1	ND	1700	ug/Kg	11/10/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	1700	ug/Kg	11/10/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	1700	ug/Kg	11/10/93
Butylbenzyl Phthalate	85-68-7	ND	1700	ug/Kg	11/10/93
4-Chloroaniline	106-47-8	ND	3300	ug/Kg	11/10/93
2-Chloronapththalene	91-58-7	ND	1700	ug/Kg	11/10/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	1700	ug/Kg	11/10/93
Chrysene	218-01-9	ND	1700	ug/Kg	11/10/93
Dibenzo(a,h)anthracene	53-70-3	ND	1700	ug/Kg	11/10/93
Dibenzofuran	132-64-9	ND	1700	ug/Kg	11/10/93
D-n-butyl Phthalate	84-74-2	ND	1700	ug/Kg	11/10/93
1,2-Dichlorobenzene	95-50-1	ND	1700	ug/Kg	11/10/93
1,3-Dichlorobenzene	541-73-1	ND	1700	ug/Kg	11/10/93
1,4-Dichlorobenzene	106-46-7	ND	1700	ug/Kg	11/10/93
3,3'-Dichlorobenzidine	91-94-1	ND	3300	ug/Kg	11/10/93
Diethyl Phthalate	84-66-2	ND	1700	ug/Kg	11/10/93
Dimethyl Phthalate	131-11-3	ND	1700	ug/Kg	11/10/93
2,4-Dinitrotoluene	121-14-2	ND	1700	ug/Kg	11/10/93
2,6-Dinitrotoluene	606-20-2	ND	1700	ug/Kg	11/10/93
D-n-octyl Phthalate	117-84-0	ND	1700	ug/Kg	11/10/93
1,2-Diphenylhydrazine	122-66-7	ND	1700	ug/Kg	11/10/93
Fluoranthene	206-44-0	ND	1700	ug/Kg	11/10/93
Fluorene	86-73-7	ND	1700	ug/Kg	11/10/93
Hexachlorobenzene	118-74-1	ND	1700	ug/Kg	11/10/93
Hexachlorobutadiene	87-68-3	ND	1700	ug/Kg	11/10/93
Hexachlorocyclopentadiene	77-47-4	ND	1700	ug/Kg	11/10/93
Hexachloroethane	67-72-1	ND	1700	ug/Kg	11/10/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	1700	ug/Kg	11/10/93
Isophorone	78-59-1	ND	1700	ug/Kg	11/10/93
2-Methylnaphthalene	91-57-6	9,000 *	1700	ug/Kg	11/10/93
Naphthalene	91-20-3	8,600 *	1700	ug/Kg	11/10/93
2-Nitroaniline	88-74-4	ND	8000	ug/Kg	11/10/93
3-Nitroaniline	99-09-2	ND	8000	ug/Kg	11/10/93
4-Nitroaniline	100-01-6	ND	8000	ug/Kg	11/10/93
Nitrobenzene	98-95-3	ND	1700	ug/Kg	11/10/93
N-Nitrosodimethylamine	62-75-9	ND	1700	ug/Kg	11/10/93
N-Nitrosodiphenylamine	86-30-6	ND	1700	ug/Kg	11/10/93
N-Nitrosodi-n-propylamine	621-64-7	ND	1700	ug/Kg	11/10/93
Phenanthrene	85-01-8	ND	1700	ug/Kg	11/10/93
Pyrene	129-00-0	ND	1700	ug/Kg	11/10/93
1,2,4-Trichlorobenzene	120-82-1	ND	1700	ug/Kg	11/10/93
4-Chloro-3-methylphenol	59-50-7	ND	1700	ug/Kg	11/10/93
2-Chlorophenol	95-57-8	ND	1700	ug/Kg	11/10/93

LEVINE-FRICKE

SAMPLE ID: SP3
AEN LAB NO: 9310218-03
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4-Dichlorophenol	120-83-2	ND	1700	ug/Kg	11/10/93
2,4-Dimethylphenol	105-67-9	ND	1700	ug/Kg	11/10/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	8000	ug/Kg	11/10/93
2,4-Dinitrophenol	51-28-5	ND	8000	ug/Kg	11/10/93
2-Methylphenol	95-48-7	ND	1700	ug/Kg	11/10/93
4-Methylphenol	106-44-5	ND	1700	ug/Kg	11/10/93
2-Nitrophenol	88-75-5	ND	1700	ug/Kg	11/10/93
4-Nitrophenol	100-02-7	ND	8000	ug/Kg	11/10/93
Pentachlorophenol	87-86-5	ND	8000	ug/Kg	11/10/93
Phenol	108-95-2	ND	1700	ug/Kg	11/10/93
2,4,5-Trichlorophenol	95-95-4	ND	1700	ug/Kg	11/10/93
2,4,6-Trichlorophenol	88-06-2	ND	1700	ug/Kg	11/10/93

Results for 8240 analysis come from an extract made within holding times.

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: SP4
AEN LAB NO: 9310218-04
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	2.1 *	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	440 *	5	ug/Kg	11/03/93
Toluene	108-88-3	4,400 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	1,600 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	92,000 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	1,000 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	40 *	1	mg/kg	10/26/93
TPH as Oil	GC-FID	1,300 *	5	mg/kg	10/26/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	1,700 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	30 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: SP5
AEN LAB NO: 9310218-05
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	0.7 *	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	450 *	5	ug/Kg	11/03/93
Toluene	108-88-3	11,000 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	12,000 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	180,000 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	1,900 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	34 *	1	mg/kg	10/26/93
TPH as Oil	GC-FID	510 *	5	mg/kg	10/26/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	1,200 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	27 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: SP6
AEN LAB NO: 9310218-06
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	2.2 *	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	ND	200	ug/Kg	11/03/93
Toluene	108-88-3	3,000 *	200	ug/Kg	11/03/93
Ethylbenzene	100-41-4	1,500 *	200	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	49,000 *	200	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	780 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	17 *	1	mg/kg	10/26/93
TPH as Oil	GC-FID	380 *	5	mg/kg	10/26/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	730 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	13 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: D&P1
AEN LAB NO: 9310218-07
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	1.3 *	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	3,400 *	5	ug/Kg	11/03/93
Toluene	108-88-3	5,800 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	12,000 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	61,000 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	940 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	30 *	1	mg/kg	10/26/93
TPH as Oil	GC-FID	80 *	5	mg/kg	10/26/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	610 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	21 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: D&P2
AEN LAB NO: 9310218-08
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	68 *	5	ug/Kg	11/03/93
Toluene	108-88-3	550 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	1,100 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	930 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	160 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	ND	10	mg/kg	10/26/93
TPH as Oil	GC-FID	170 *	5	mg/kg	10/26/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	350 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	37 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: D&P3
AEN LAB NO: 9310218-09
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	930 *	5	ug/Kg	11/03/93
Toluene	108-88-3	220 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	4,100 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	1,900 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	74 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	ND	4	mg/kg	10/26/93
TPH as Oil	GC-FID	120 *	5	mg/kg	10/26/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	250 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	120 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: D&P4
AEN LAB NO: 9310218-10
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	640 *	5	ug/Kg	11/03/93
Toluene	108-88-3	110 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	510 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	1,300 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	14 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	ND	20	mg/kg	11/02/93
TPH as Oil	GC-FID	220 *	5	mg/kg	11/02/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	190 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	66 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: D&P5
AEN LAB NO: 9310218-11
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	1,200 *	5	ug/Kg	11/03/93
Toluene	108-88-3	2,700 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	12,000 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	35,000 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	1,600 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	ND	30	mg/kg	10/27/93
TPH as Oil	GC-FID	210 *	5	mg/kg	10/27/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	930 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	86 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: D&P6
AEN LAB NO: 9310218-12
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	ND	5	ug/Kg	11/04/93
Toluene	108-88-3	ND	5	ug/Kg	11/04/93
Ethylbenzene	100-41-4	ND	5	ug/Kg	11/04/93
Xylenes, Total	1330-20-7	ND	5	ug/Kg	11/04/93
Purgeable HCs as Gasoline	5030/GCFID	ND	0.2	mg/Kg	11/04/93
#CA Waste Extraction	CA Title 22			Extrn Date	
Lead in WET Extract	EPA 7420		0.1	mg/L	
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	ND	6	mg/kg	10/27/93
TPH as Oil	GC-FID	190 *	5	mg/kg	10/27/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	390 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	130 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: D&P7
AEN LAB NO: 9310218-13
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	ND	200	ug/Kg	11/03/93
Toluene	108-88-3	250 *	200	ug/Kg	11/03/93
Ethylbenzene	100-41-4	ND	200	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	10,000 *	200	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	450 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/25/93
TPH as Diesel	GC-FID	7 *	1	mg/kg	10/27/93
TPH as Oil	GC-FID	8 *	5	mg/kg	10/27/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	140 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	12 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EXEN1
AEN LAB NO: 9310218-14
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	38,000 *	5	ug/Kg	11/03/93
Toluene	108-88-3	130,000 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	130,000 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	570,000 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	6,000 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/26/93
TPH as Diesel	GC-FID	ND	6	mg/kg	10/27/93
TPH as Oil	GC-FID	140 *	5	mg/kg	10/27/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	430 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	10 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EXEM2
AEN LAB NO: 9310218-15
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	21,000 *	5	ug/Kg	11/04/93
Toluene	108-88-3	60,000 *	5	ug/Kg	11/04/93
Ethylbenzene	100-41-4	52,000 *	5	ug/Kg	11/04/93
Xylenes, Total	1330-20-7	290,000 *	5	ug/Kg	11/04/93
Purgeable HCs as Gasoline	5030/GCFID	3,500 *	0.2	mg/Kg	11/04/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/26/93
TPH as Diesel	GC-FID	ND	5	mg/kg	10/27/93
TPH as Oil	GC-FID	650 *	5	mg/kg	10/27/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	2,000 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	110 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EXES3
AEN LAB NO: 9310218-16
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	38,000 *	5	ug/Kg	11/03/93
Toluene	108-88-3	190,000 *	5	ug/Kg	11/05/93
Ethylbenzene	100-41-4	91,000 *	5	ug/Kg	11/05/93
Xylenes, Total	1330-20-7	510,000 *	5	ug/Kg	11/05/93
Purgeable HCs as Gasoline	5030/GCFID	3,200 *	0.2	mg/Kg	11/05/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/26/93
TPH as Diesel	GC-FID	10 *	1	mg/kg	10/27/93
TPH as Oil	GC-FID	160 *	5	mg/kg	10/27/93
#Soil Extrn for TOG/HCs	SM 5520EF	-		Extrn Date	10/27/93
Hydrocarbons SM 5520F	SM 5520F	510 *	10	mg/kg	10/28/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	11 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EXSES4
AEN LAB NO: 9310218-17
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	20,000 *	5	ug/Kg	11/03/93
Toluene	108-88-3	62,000 *	5	ug/Kg	11/05/93
Ethylbenzene	100-41-4	90,000 *	5	ug/Kg	11/05/93
Xylenes, Total	1330-20-7	490,000 *	5	ug/Kg	11/05/93
Purgeable HCs as Gasoline	5030/GCFID	3,000 *	0.2	mg/Kg	11/05/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/26/93
TPH as Diesel	GC-FID	14 *	1	mg/kg	10/27/93
TPH as Oil	GC-FID	240 *	5	mg/kg	10/27/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	10 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EXNEN5
AEN LAB NO: 9310218-18
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	31,000 *	5	ug/Kg	11/03/93
Toluene	108-88-3	180,000 *	5	ug/Kg	11/05/93
Ethylbenzene	100-41-4	80,000 *	5	ug/Kg	11/05/93
Xylenes, Total	1330-20-7	420,000 *	5	ug/Kg	11/05/93
Purgeable HCs as Gasoline	5030/GCFID	3,200 *	0.2	mg/Kg	11/05/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/26/93
TPH as Diesel	GC-FID	63 *	1	mg/kg	10/27/93
TPH as Oil	GC-FID	190 *	5	mg/kg	10/27/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	10 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EXNWN6
AEN LAB NO: 9310218-19
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	1.2 *	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	37,000 *	5	ug/Kg	11/03/93
Toluene	108-88-3	180,000 *	5	ug/Kg	11/05/93
Ethylbenzene	100-41-4	80,000 *	5	ug/Kg	11/05/93
Xylenes, Total	1330-20-7	480,000 *	5	ug/Kg	11/05/93
Purgeable HCs as Gasoline	5030/GCFID	3,800 *	0.2	mg/Kg	11/05/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/26/93
TPH as Diesel	GC-FID	8 *	1	mg/kg	10/27/93
TPH as Oil	GC-FID	170 *	5	mg/kg	10/27/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	11 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EXWM7
AEN LAB NO: 9310218-20
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	3,300 *	5	ug/Kg	11/03/93
Toluene	108-88-3	21,000 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	17,000 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	130,000 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	1,300 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/26/93
TPH as Diesel	GC-FID	9 *	1	mg/kg	10/27/93
TPH as Oil	GC-FID	30 *	5	mg/kg	10/27/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	43 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EXWN8
AEN LAB NO: 9310218-21
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	1.8 *	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	74,000 *	5	ug/Kg	11/03/93
Toluene	108-88-3	370,000 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	110,000 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	860,000 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	7,600 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/26/93
TPH as Diesel	GC-FID	44 *	1	mg/kg	10/27/93
TPH as Oil	GC-FID	770 *	5	mg/kg	10/27/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	19 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EXWS9
AEN LAB NO: 9310218-22
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	24,000 *	5	ug/Kg	11/04/93
Toluene	108-88-3	33,000 *	5	ug/Kg	11/04/93
Ethylbenzene	100-41-4	60,000 *	5	ug/Kg	11/04/93
Xylenes, Total	1330-20-7	350,000 *	5	ug/Kg	11/04/93
Purgeable HCs as Gasoline	5030/GCFID	3,000 *	0.2	mg/Kg	11/04/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/26/93
TPH as Diesel	GC-FID	37 *	1	mg/kg	10/27/93
TPH as Oil	GC-FID	140 *	5	mg/kg	10/27/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	11 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

LEVINE-FRICKE

SAMPLE ID: EXSWS10
AEN LAB NO: 9310218-23
AEN WORK ORDER: 9310218
CLIENT PROJ. ID: 3015.05

DATE SAMPLED: 10/21/93
DATE RECEIVED: 10/22/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Organo Lead in Soil	DOHS-LUFT	ND	0.5	mg/kg	11/02/93
BTEX & Gasoline HCs (Soil)	EPA 8020				
Benzene	71-43-2	4,100 *	5	ug/Kg	11/03/93
Toluene	108-88-3	9,300 *	5	ug/Kg	11/03/93
Ethylbenzene	100-41-4	10,000 *	5	ug/Kg	11/03/93
Xylenes, Total	1330-20-7	73,000 *	5	ug/Kg	11/03/93
Purgeable HCs as Gasoline	5030/GCFID	490 *	0.2	mg/Kg	11/03/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	10/26/93
TPH as Diesel	GC-FID	35 *	1	mg/kg	10/27/93
TPH as Oil	GC-FID	160 *	5	mg/kg	10/27/93
#Digestion, soil		-		Prep Date	10/30/93
Lead	EPA 7420	8 *	5	mg/kg	10/30/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

DATE EXTRACTED: 11/03/93
DATE ANALYZED: 11/04/93
CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
SAMPLE SPIKED: 9310236-05
INSTRUMENT: IR

IR DETERMINATION FOR OIL & GREASE/HYDROCARBONS
METHOD SPIKE RECOVERY SUMMARY
(SOIL MATRIX)

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	212	ND	197	197	92.9	0.0

CURRENT QC LIMITS (Revised 10/25/93)

Analyte	Percent Recovery	RPD
Oil	(70-118)	18

METHOD BLANK RESULT

Lab Id.	Hydrocarbons (mg/kg)
102793-METHOD BLANK	ND
Reporting Limit:	10
Method: SM5520F	
Instrument: IR	
Date Extracted: 10/27/93	
Date Analyzed: 10/28/93	

MS = Method Spike
MSD = Method Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 11/03/93
DATE ANALYZED: 11/04/93
CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
SAMPLE SPIKED: 9310236-07
INSTRUMENT: IR

IR DETERMINATION FOR OIL & GREASE/HYDROCARBONS
METHOD SPIKE RECOVERY SUMMARY
(SOIL MATRIX)

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	212	ND	197	202	94.1	2.5

CURRENT QC LIMITS (Revised 10/25/93)

Analyte	Percent Recovery	RPD
Oil	(70-118)	18

METHOD BLANK RESULT

Lab Id.	Hydrocarbons (mg/kg)
102793-METHOD BLANK	ND
Reporting Limit:	10

Method: SM5520F
Instrument: IR
Date Extracted: 10/27/93
Date Analyzed: 10/28/93

MS = Method Spike
MSD = Method Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 10/25/93
DATE ANALYZED: 10/26/93
CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
SAMPLE SPIKED: 9310227-01
INSTRUMENT: C

METHOD SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE SOIL
METHOD: EPA 3550 GCFID

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Diesel	40.8	ND	26.8	27.9	67.0	4.0

CURRENT QC LIMITS (Revised 10/25/93)

Analyte	Percent Recovery	RPD
Diesel	(44-105)	18

METHOD BLANK RESULT

Lab Id.	Extractable Hydrocarbons as Diesel (mg/kg)	Extractable Hydrocarbons as Oil (mg/kg)
102593-METHOD BLANK	ND	ND
Reporting Limit:	1	1

Method: 3550 GCFID
Instrument: C
Date Extracted: 10/25/93
Date Analyzed: 10/26/93

MS = Method Spike
MSD = Method Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 10/28/93
DATE ANALYZED: 10/31/93
CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
SAMPLE SPIKED: 9310236-23
INSTRUMENT: C

METHOD SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE SOIL
METHOD: EPA 3550 GCFID

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Diesel	40.8	ND	31.7	32.3	78.4	1.9

CURRENT QC LIMITS (Revised 10/25/93)

Analyte	Percent Recovery	RPD
Diesel	(44-105)	18

METHOD BLANK RESULT

Lab Id.	Extractable Hydrocarbons as Diesel (mg/kg)	Extractable Hydrocarbons as Oil (mg/kg)
102693-METHOD BLANK	ND	ND
Reporting Limit:	1	1

Method: 3550 GCFID
Instrument: C
Date Extracted: 10/26/93
Date Analyzed: 10/27/93

MS = Method Spike
MSD = Method Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: H

CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
AEN LAB NO: 1102-BLANK
DATE ANALYZED: 11/02/93

BTEX AND HYDROCARBONS (SOIL MATRIX)
METHOD: EPA 8020, 5030 GCFID
(SOIL MATRIX)

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Benzene	71-43-2	ND	5
Toluene	108-88-3	ND	5
Ethylbenzene	100-41-4	ND	5
Xylenes, Total	1330-20-7	ND	5
PURGEABLE HYDROCARBONS AS:			
Gasoline		ND mg/kg	0.2 mg/kg

ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: H

CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
AEN LAB NO: 1103-BLANK
DATE ANALYZED: 11/03/93

BTEX AND HYDROCARBONS (SOIL MATRIX)
METHOD: EPA 8020, 5030 GCFID
(SOIL MATRIX)

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Benzene	71-43-2	ND	5
Toluene	108-88-3	ND	5
Ethylbenzene	100-41-4	ND	5
Xylenes, Total	1330-20-7	ND	5
PURGEABLE HYDROCARBONS AS:			
Gasoline		ND mg/kg	0.2 mg/kg

ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: F

CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
AEN LAB NO: 1103-BLANK
DATE ANALYZED: 11/03/93

BTEX AND HYDROCARBONS (SOIL MATRIX)
METHOD: EPA 8020, 5030 GCFID
(SOIL MATRIX)

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Benzene	71-43-2	ND	5
Toluene	108-88-3	ND	5
Ethylbenzene	100-41-4	ND	5
Xylenes, Total	1330-20-7	ND	5
PURGEABLE HYDROCARBONS AS:			
Gasoline		ND mg/kg	0.2 mg/kg

ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: H

CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
AEN LAB NO: 1104-BLANK
DATE ANALYZED: 11/04/93

BTEX AND HYDROCARBONS (SOIL MATRIX)
METHOD: EPA 8020, 5030 GCFID
(SOIL MATRIX)

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Benzene	71-43-2	ND	5
Toluene	108-88-3	ND	5
Ethylbenzene	100-41-4	ND	5
Xylenes, Total	1330-20-7	ND	5
PURGEABLE HYDROCARBONS AS:			
Gasoline		ND mg/kg	0.2 mg/kg

ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: F

CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
AEN LAB NO: 1105-BLANK
DATE ANALYZED: 11/05/93

BTEX AND HYDROCARBONS (SOIL MATRIX)
METHOD: EPA 8020, 5030 GCFID
(SOIL MATRIX)

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Benzene	71-43-2	ND	5
Toluene	108-88-3	ND	5
Ethylbenzene	100-41-4	ND	5
Xylenes, Total	1330-20-7	ND	5
PURGEABLE HYDROCARBONS AS:			
Gasoline		ND mg/kg	0.2 mg/kg

ND = Not Detected

QUALITY CONTROL DATA

CLIENT PROJ. ID: 3015.05 AEN JOB NO: 9310218

INSTRUMENT: H, F

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8020
(SOIL MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION Client Id.	Lab Id.	SURROGATE RECOVERY (PERCENT) Fluorobenzene
11/03/93	SP1	01	87.8
11/02/93	SP2	02	109.2
11/02/93	SP3	03	90.2
11/03/93	SP4	04	89.4
11/03/93	SP5	05	89.3
11/03/93	SP6	06	90.6
11/03/93	D&P1	07	90.8
11/03/93	D&P2	08	90.0
11/03/93	D&P3	09	86.7
11/03/93	D&P4	10	88.2
11/03/93	D&P5	11	86.6
11/04/93	D&P6	12	95.7
11/03/93	D&P7	13	86.0
11/03/93	EXEN1	14	89.5
11/04/93	EXEM2	15	91.2
11/05/93	EXES3	16	74.0
11/05/93	EXSES4	17	72.3
11/05/93	EXNEN5	18	74.7
11/05/93	EXNWN6	19	73.1
11/03/93	EXWM7	20	88.5
11/03/93	EXWN8	21	96.9
11/04/93	EXWS9	22	94.1
11/03/93	EXSWS10	23	90.5
11/02/93		1102-BLANK-H	89.8
11/03/93		1103-BLANK-H	86.6
11/03/93		1103-BLANK-F	84.0
11/04/93		1104-BLANK-H	86.2
11/05/93		1105-BLANK-F	80.6

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Fluorobenzene	(70-115)

QUALITY CONTROL DATA

DATE ANALYZED: 11/04/93
SAMPLE SPIKED: 9310251-03
CLIENT PROJ. ID: 3015.03

AEN JOB NO: 9310218
INSTRUMENT: H

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8020, 5030 GCFID
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Sample Result (ug/kg)	MS Result (ug/kg)	MSD Result (ug/kg)	Average Percent Recovery	RPD
Benzene	17.7	ND	18.6	19.4	107.3	4.2
Toluene	68.1	ND	70.0	69.9	102.7	0.1
Hydrocarbons as Gasoline	1000	ND	769	706	73.8	8.5

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Benzene	(79.4-125.2)	9.8
Toluene	(84.4-116.8)	10.0
Gasoline	(53.7-124.2)	15.1

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE ANALYZED: 11/04/93
SAMPLE SPIKED: 9310251-02
CLIENT PROJ. ID: 3015.03

AEN JOB NO: 9310218
INSTRUMENT: H

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8020, 5030 GCFID
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Sample Result (ug/kg)	MS Result (ug/kg)	MSD Result (ug/kg)	Average Percent Recovery	RPD
Benzene	17.7	ND	20.1	19.1	110.7	5.1
Toluene	68.1	ND	70.6	69.4	102.8	1.7
Hydrocarbons as Gasoline	1000	ND	647	650	64.9	0.5

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Benzene	(79.4-125.2)	9.8
Toluene	(84.4-116.8)	10.0
Gasoline	(53.7-124.2)	15.1

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE ANALYZED: 11/04/93
SAMPLE SPIKED: 9310236-21
CLIENT PROJ. ID: 3015.03

AEN JOB NO: 9310218
INSTRUMENT: H

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8020, 5030 GCFID
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Sample Result (ug/kg)	MS Result (ug/kg)	MSD Result (ug/kg)	Average Percent Recovery	RPD
Benzene	20.2	ND	20.6	21.4	104.0	3.8
Toluene	69.5	ND	69.6	71.7	101.7	3.0
Hydrocarbons as Gasoline	1000	ND	831	799	81.5	3.9

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Benzene	(79.4-125.2)	9.8
Toluene	(84.4-116.8)	10.0
Gasoline	(53.7-124.2)	15.1

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: 12

CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
AEN LAB NO: 1111-BLANK
DATE ANALYZED: 11/11/93

EPA METHOD 8240 (SOIL MATRIX)
VOLATILE ORGANIC COMPOUNDS (METHOD BLANK)

COMPOUND	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon Disulfide	75-15-0	ND	10
Carbon Tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl Vinyl Ether	110-75-8	ND	10
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene Chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Vinyl Acetate	108-05-4	ND	50
Vinyl Chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9310218

CLIENT PROJ. ID: 3015.05

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Sample Id.	Lab Id.	1,2-Dichloroethane-d_4	Toluene-d_8	p-Bromofluorobenzene
11/11/93	SP2	02	87.8	97.4	97.8
11/11/93	SP3	03	84.3	95.5	97.6
11/11/93		1111-BLANK	100.5	103.9	100.8

CURRENT QC LIMITS (Revised 08/13/91)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d_4	(80-135)
Toluene-d_8	(90-116)
p-Bromofluorobenzene	(82-114)

QUALITY CONTROL DATA

DATE ANALYZED: 11/11/93
SAMPLE SPIKED: 9311029-27
CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Sample Result (ug/kg)	MS Result (ug/kg)	MSD Result (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	ND	46.1	45.6	91.7	1.1
Trichloroethene	50.0	ND	51.7	49.3	101.0	4.8
Benzene	50.0	ND	51.0	51.7	102.7	1.4
Toluene	50.0	ND	50.3	50.6	100.9	0.6
Chlorobenzene	50.0	ND	50.7	50.6	101.3	0.2

CURRENT QC LIMITS (Revised 08/13/91)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(61-143)	15
Trichloroethene	(72-121)	12
Benzene	(82-123)	10
Toluene	(80-118)	12
Chlorobenzene	(82-113)	10

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: 11

CLIENT PROJ. ID: 3015.05

AEN JOB NO: 931[illegible]218
AEN LAB NO: 110[illegible]BLANK
DATE EXTRACTED: [illegible]1/04/93
DATE ANALYZED: [illegible]/06/93

EPA METHOD 8270 (SOIL MATRIX)
SEMI-VOLATILE ORGANIC COMPOUNDS
GC/MS EXTRACTABLES

COMPOUND	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Acenaphthene	83-32-9	ND	330
Acenaphthylene	208-96-8	ND	330
Anthracene	120-12-7	ND	330
Benzidine	92-87-5	ND	1600
Benzoic Acid	65-85-0	ND	1600
Benzo(a)anthracene	56-55-3	ND	330
Benzo(b)fluoranthene	205-99-2	ND	330
Benzo(k)fluoranthene	207-08-9	ND	330
Benzo(g,h,i)perylene	191-24-2	ND	330
Benzo(a)pyrene	50-32-8	ND	330
Benzyl Alcohol	100-51-6	ND	660
Bis(2-chloroethoxy) methane	111-91-1	ND	330
Bis(2-chloroethyl)ether	111-44-4	ND	330
Bis(2-chloroisopropyl) ether	39638-32-9	ND	330
Bis(2-ethylhexyl) phthalate	117-81-7	ND	330
4-Bromophenyl phenyl ether	101-55-3	ND	330
Butylbenzyl phthalate	85-68-7	ND	330
4-Chloroaniline	106-47-8	ND	660
2-Chloronaphthalene	91-58-7	ND	330
4-Chlorophenyl phenyl ether	7005-72-3	ND	330
Chrysene	218-01-9	ND	330
Dibenzo(a,h)anthracene	53-70-3	ND	330
Dibenzofuran	132-64-9	ND	330
Di-n-butylphthalate	84-74-2	ND	330
1,2-Dichlorobenzene	95-50-1	ND	330

ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: 11

CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
AEN LAB NO: 1104-BLANK
DATE EXTRACTED: 11/04/93
DATE ANALYZED: 11/06/93

EPA METHOD 8270 (SOIL MATRIX)
GC/MS EXTRACTABLES (Cont.)

COMPOUND	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
1,3-Dichlorobenzene	541-73-1	ND	330
1,4-Dichlorobenzene	106-46-7	ND	330
3,3'-Dichlorobenzidine	91-94-1	ND	660
Diethylphthalate	84-66-2	ND	330
Dimethylphthalate	131-11-3	ND	330
2,4-Dinitrotoluene	121-14-2	ND	330
2,6-Dinitrotoluene	606-20-2	ND	330
Di-n-octylphthalate	117-84-0	ND	330
1,2-Diphenylhydrazine	122-66-7	ND	330
Fluoranthene	206-44-0	ND	330
Fluorene	86-73-7	ND	330
Hexachlorobenzene	118-74-1	ND	330
Hexachlorobutadiene	87-68-3	ND	330
Hexachlorocyclopentadiene	77-47-4	ND	330
Hexachloroethane	67-72-1	ND	330
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330
Isophorone	78-59-1	ND	330
2-Methylnaphthalene	91-57-6	ND	330
Naphthalene	91-20-3	ND	330
2-Nitroaniline	88-74-4	ND	1600
3-Nitroaniline	99-09-2	ND	1600
4-Nitroaniline	100-01-6	ND	1600
Nitrobenzene	98-95-3	ND	330
N-nitrosodimethylamine	62-75-9	ND	330
N-nitrosodiphenylamine	86-30-6	ND	330
N-nitroso-di-n-propylamine	621-64-7	ND	330
Phenanthrene	85-01-8	ND	330
Pyrene	129-00-0	ND	330
1,2,4-Trichlorobenzene	120-82-1	ND	330

ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: 11

CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
AEN LAB NO: 1104-BLANK
DATE EXTRACTED: 11/04/93
DATE ANALYZED: 11/06/93

EPA METHOD 8270 (SOIL MATRIX)
GC/MS EXTRACTABLES (Cont.)

COMPOUND	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
4-Chloro-3-methylphenol	59-50-7	ND	330
2-Chlorophenol	95-57-8	ND	330
2,4-Dichlorophenol	120-83-2	ND	330
2,4-Dimethylphenol	105-67-9	ND	330
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600
2,4-Dinitrophenol	51-28-5	ND	1600
2-Methylphenol	95-48-7	ND	330
4-Methylphenol	106-44-5	ND	330
2-Nitrophenol	88-75-5	ND	330
4-Nitrophenol	100-02-7	ND	1600
Pentachlorophenol	87-86-5	ND	1600
Phenol	108-95-2	ND	330
2,4,5-Trichlorophenol	95-95-4	ND	330
2,4,6-Trichlorophenol	88-06-2	ND	330

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 11/04/93

AEN JOB NO: 9310218

CLIENT PROJ. ID: 3015.05

INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Client Id.	Lab Id.	Nitrobenzene-d_5	2-Fluorobiphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluorophenol	2,4,6-Tribromophenol
11/10/93	SP2	02	116.9	111.0	107.9	84.2	72.5	76.9
11/10/93	SP3	03	99.8	113.3	96.0	62.8	63.5	108.2
11/06/93		1104-BLANK	58.0	67.3	65.0	70.1	65.6	58.4

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(23-120)
2-Fluorobiphenyl	(30-115)
Terphenyl-d_{14}	(18-137)
Phenol-d_5	(24-113)
2-Fluorophenol	(25-121)
2,4,6-Tribromophenol	(19-122)

QUALITY CONTROL DATA

DATE EXTRACTED: 11/04/93
DATE ANALYZED: 11/06/93
CLIENT PROJ. ID: 3015.05

AEN JOB NO: 9310218
SAMPLE SPIKED: 9310331-06
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Sample Result (ug/kg)	MS Result (ug/kg)	MSD Result (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	ND	2510	2580	76.4	2.8
2-Chlorophenol	3330	ND	2320	2330	69.8	0.4
1,4-Dichlorobenzene	3400	ND	1950	1970	57.6	1.0
N-Nitroso-di-n-propylamine	3320	ND	2620	2640	79.2	0.8
1,2,4-Trichlorobenzene	3330	ND	1940	1910	57.8	1.6
4-Chloro-3-methylphenol	3270	ND	3100	3160	95.7	1.9
Acenaphthene	3330	ND	2610	2370	74.8	9.6
4-Nitrophenol	3300	ND	1970	2050	60.9	4.0
2,4-Dinitrotoluene	3330	ND	2600	2650	78.8	1.9
Pentachlorophenol	3380	ND	2250	2440	69.4	8.1
Pyrene	3320	ND	1770	1870	54.8	5.5

CURRENT QC LIMITS (DEFAULT)

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
N-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

MATRIX: SOIL

AEN JOB NO: 9310218

CLIENT PROJ. ID: 3015.05

DIGESTION DATE: 10/30-11/07/93

MATRIX SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	SAMPLE SPIKED	SAMPLE RESULT	SPIKE ADDED	OBSERVED RECOVERIES (mg/kg) MS	MSD	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Organo Lead	V22/DHS	9310218-18	ND	5.0	5.40	5.56	110	3	50-132	22
Organo Lead	V22/DHS	9310218-20	ND	5.0	5.13	4.84	100	6	50-132	22
Pb, Lead	V22/7420	9310218-05	26.9	500	484	500	93	3	72-122	13
Pb, Lead	V22/7420	9310218-23	8.3	500	444	490	92	10	72-122	13

MS = Matrix Spike
MSD = Matrix Spike Duplicate

SAMPLE SPIKED: SAND

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	SAND BLANK RESULT	TRUE VALUE	OBSERVED RECOVERIES (mg/kg) MS	MSD	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Cd, Cadmium	ICP/6010	ND	20	19.1	19.2	96	1	75-125	20
Cr, Chromium	ICP/6010	ND	100	94.9	95.7	95	1	75-125	20
Ni, Nickel	ICP/6010	ND	100	97.9	98.6	98	1	75-125	20
Pb, Lead	ICP/6010	ND	100	99.1	101	100	2	75-125	20
Pb, Lead	V22/7420	ND	1000	915	886	90	3	75-125	20
Zn, Zinc	ICP/6010	ND	100	92.7	94.0	93	1	75-125	20

MS = Method Spike
MSD = Method Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

*** END OF REPORT ***

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

R-4, S-E

9310218

Project No.: 3015.05	Field Logbook No.:	Date: 10-21-93	Serial No.: 8875
Project Name: Diversified Tank Pull	Project Location: 625 Hegenberger		
Sampler (Signature): Susan M. Henry			Samplers: Susan Henry; Shellie Fletcher

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPHg 8015	TPHd 8015	BTEX 8020	Oil&Grease 5520F	Total Lead 7421	Organic Lead DHS	8240		REMARKS
SP1	10-21	93	01A	1	Soil	✓	✓	✓	✓	✓	✓			
SP2			02A	1		✓	✓	✓	✓	✓	✓	X	X	Note, for SP1, SP2, SP3,
SP3			03A	1		✓	✓	✓	✓	✓	✓	X	X	SP4, SP5, SP6: Ignore the
SP4			04A	1		✓	✓	✓	✓	✓	✓			analyses written on labels.
SP5			05A	1		✓	✓	✓	✓	✓	✓			Do those requested here.
SP6			06A	1		✓	✓	✓	✓	✓	✓			For every sample do:
DEP1			07A	1		✓	✓	✓	✓	✓	✓			TPHg - 8015
DEP2			08A	1		✓	✓	✓	✓	✓	✓			TPHd - 8015
DEP3			09A	1		✓	✓	✓	✓	✓	✓			BTEX - 8020
DEP4			10A	1		✓	✓	✓	✓	✓	✓			Oil&Grease - 5520F
DEP5			11A	1		✓	✓	✓	✓	✓	✓			Total Lead - 7421
DEP6			12A	1		✓	✓	✓	✓	✓	✓			Organic Lead - DHS
DEP7			13A	1		✓	✓	✓	✓	✓	✓			← DEP7 is pea gravel pet with gasoline!
														Normal Turn
Note: SP = StockPile					Percent STLC Pb	11/22 - analyze D+P6 for on rush TAT - DSH								FAX results to Sue Henry
DEP = Dispensers & Piping														Questions? call Sue Henry

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
Susan M Henry	10-22-93	09:10		10-22-93	09:10
RELINQUISHED BY: (Signature)	10-22-93	09:50	Gina Gillespie	10-22-93	0950
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:
LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
(415) 652-4500

Analytical Laboratory:
AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF