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Transmittal/Memorandum

To: Ms. Susan Hugo
Alameda County Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

From: Paul Supple *PS*

Date: May 7, 1993

Subject: Underground Piping Removal and Soil Sampling
ARCO Facility No. 6113
785 East Stanley Boulevard
Livermore, California

Job No.: A154W01

Remarks: Please find enclosed one copy of the subject report for your files.

cc: Mr. Mike Whelan, ARCO Products Company
Mr. Chris Winsor, ARCO Products Company
Mr. Joel Coffman, RESNA Industries
Mr. Eddie So, Regional Water Quality Control Board
Ms. Danielle Stefani, Livermore Fire Department

**UNDERGROUND PIPING REMOVAL
AND SOIL SAMPLING**

**ARCO Facility No. 6113
785 East Stanley Boulevard
Livermore, California**

May 7, 1993

Prepared for:

**ARCO Products Company
P.O. Box 5811
San Mateo, California**

Prepared by:

**ROUX ASSOCIATES
1855 Gateway Boulevard, Suite 770
Concord, California 94520
(510) 602-2333**

TITLE: Underground Piping Removal and Soil Sampling
ARCO Facility No. 6113
785 East Stanley Boulevard
Livermore, California

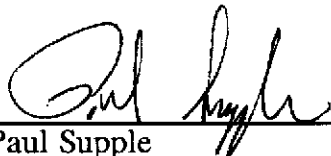
DATE: May 7, 1993

PROJECT NO: A154W01


SUBMITTED BY: Roux Associates
1855 Gateway Boulevard, Suite 770
Concord, California 94520

This work was done under the direction of the undersigned California Registered Geologist.

PREPARED BY:



Paul Supple
Senior Hydrogeologist



Todd Ramsden, R.G.
California Registered Geologist #5687

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1.0 INTRODUCTION

This report describes the removal and installation of underground piping and presents soil sampling analytical data for ARCO Products Company (ARCO) Facility No. 6113 located at 785 East Stanley Boulevard, Livermore, California (Site). ARCO authorized Roux Associates (Roux) under ARCO Task Order No. 6113-92-1A, to observe the excavation and removal of product lines, collect and analyze soil samples, coordinate the disposal of the soil stockpiles, and prepare this report. Soil samples were collected from beneath the removed product lines and from the excavated soil stockpiles.

Piping removal and installation activities were conducted between December 8, 1992 and March 17, 1993. The work performed by Roux was conducted by Roux personnel under the direction of Mr. Todd Ramsden, California Registered Geologist Number 5687.

2.0 SITE DESCRIPTION

ARCO Facility No. 6113 is an operating self-service gasoline station and ARCO AM/PM mini-market located at the southwest corner of the intersection of East Stanley Boulevard and Murietta Boulevard in Livermore, California (Figure 1). The Site is a relatively flat concrete covered lot, at an elevation of about 450 feet above mean sea level (USGS, 1980). Topography in the Site area slopes gently (about 3 percent grade) toward the northwest.

Currently, Site features include an ARCO AM/PM building, four pump islands, two double-wall 12,000-gallon fiberglass underground storage tanks (USTs), and one single-wall 12,000-gallon fiberglass UST located in a common tank cavity northeast of the building (Figure 2). The existing double wall fiberglass USTs were installed in October 1984 and the single wall UST was installed in May 1983.

3.0 GEOLOGY AND HYDROGEOLOGY

The Site is located in the Livermore Valley, an east-west trending basin in the Coastal Ranges of Northern California. The Livermore Valley is drained by several west flowing perennial and intermittent streams. The Site is located adjacent to and northeast of Arroyo Mocho (Figure 1). Shallow subsurface deposits underlying the Site consist of late Pleistocene alluvium composed of poorly consolidated alluvial fan deposits made up mostly of gravel and sand with some silt (Helley, et al., 1979).

Native soils encountered in excavations and previously drilled soil borings at the Site consisted predominantly of sandy gravel and clayey gravel with interbedded sandy silt and silty clay (RESNA, 1992a). Ground water was encountered at about 20 ft. below ground surface (bgs) in 1989. In the past two years the depth to water has fluctuated between 20 and 60 ft. bgs.

4.0 PREVIOUS INVESTIGATIONS

In January and February, 1989, Pacific Environmental Group (PEG) removed a 280-gallon waste-oil tank and collected soil samples from below the removed tank for laboratory analyses. The tank was located at the southeast corner of the station building. PEG noted that the tank displayed no sign of leakage from either the fill pipe or the tank and reported no detectable product odor in the soil beneath the tank. Soil samples collected from the side wall and bottom of the tank pit at depths of 5.0 ft. and 7.5 ft., respectively, contained elevated concentrations of Total Oil and Grease (TOG) and high boiling hydrocarbons (HBHC) in both samples. The pit was deepened and two more samples taken and analyzed for TOG and HBHC. The excavation was then backfilled with clean fill as further excavation was deemed dangerous to the stability of the station building (Pacific Environmental Group, 1989).

From September 1989 through January 1991, RESNA conducted an additional subsurface environmental investigation in which three soil borings were drilled and three monitoring wells were constructed in the soil borings. Ground water level measurements were taken, and soil and ground water samples and soil samples were submitted for analysis. Laboratory analysis of the soil samples indicated nondetectable levels of TOG, total petroleum hydrocarbons as gasoline (TPH-G), and total petroleum hydrocarbons as diesel (TPH-D). Ground water analytical results reported elevated concentrations of TPH-G and TOG in two of the wells (Applied Geosystems, December 6, 1989).

From February through March 1991, RESNA performed a limited subsurface environmental investigation to further evaluate the extent of waste-oil related hydrocarbons in the soil and groundwater. One soil boring located down gradient of the former waste-oil tank was drilled, soil samples were collected, a monitoring well was constructed in the boring and one ground water sample was collected. The soil analytical results detected only a very low level of benzene in one sample. The ground water sample analysis indicated that TPH-G was present in the down gradient well, while levels of TPH-G in the three upgradient wells were below detection limits (Applied Geosystems, 1991).

RESNA carried out an additional subsurface investigation in June 1992 (RESNA, 1992b). Eight soil borings were drilled and sampled. Ground water monitoring wells were constructed in five of the soil borings, and vapor extraction wells were built in two of the boreholes. Results of the investigation indicated that gasoline hydrocarbons in soil are generally confined to the area of the existing USTs at a depth of 15 to 45 ft. bgs. The lateral extent of TPH-G in ground water was defined only on the south side of the Site.

A vapor extraction test (VET) was conducted by RESNA at the Site in August, 1992 (RESNA, 1992b). Results of their VET indicate that vapor extraction is a viable method for remediation of subsurface hydrocarbon contamination.

5.0 UNDERGROUND PIPING EXCAVATION, REMOVAL AND SAMPLING

Wilkey's Engineering (Wilkey) of Pleasant Grove, California, began work to remove the old underground piping on December 8, 1992. A chronological summary of Site activities is provided in Appendix A. The pavement overlying the existing USTs and the product, vapor return, and vent piping was cut and removed. The pea gravel above the piping was removed and stockpiled on-site. The former underground piping was enclosed in a plastic hytrel liner used as secondary containment. The hytrel liner was removed in conjunction with the piping.

Removal of underground piping and sampling of the soil beneath the removed product lines took place on December 11, 1992. The uncovered piping was inspected by a field geologist from Roux. All piping appeared to be in good condition. There was no visible evidence of holes or cracks in the piping. Wilkey then removed the product, vapor return and vent piping. Roux collected six soil samples from the bottom of the product line trenches adjacent to the gasoline dispensers and four soil samples from below the dispensers at depths of 3.5 to 4 ft. bgs. Sample locations were selected by Ms. Susan Hugo of the ACDEH (Figure 3).

Because an elevated concentration of TPH-G was detected in soil sample L9 below one of the dispensers, the ACDEH requested that the area around soil sample L9 be over-excavated and re-sampled. On December 16, 1992, Wilkey, under Roux's supervision, widened and deepened the L9 sample area to a depth of 6 ft. An additional soil sample (L11) was collected from the bottom of the excavation at a location selected by Ms. Susan Hugo.

The product line samples were collected in 2-inch diameter, 4-inch long stainless steel tubes. The steel tube was driven with a rubber mallet into native soil at the bottom of the product line trench and completely filled so that no headspace remained at either end. Each end of the steel tube was covered with aluminum foil and a plastic cap, then sealed with duct tape. The samples were labeled with the project name, time, date, sample designation, and sampler's initials and placed in a plastic bag. The samples were then stored on ice in a cooler chest while in transit to the laboratory. Chain-of-Custody documentation was maintained for all samples.

The eleven soil samples collected from the bottom of the product line trenches and below the dispensers were delivered to Sequoia Analytical (Sequoia) of Concord, California, a California Department of Health Services certified laboratory, for chemical analyses. The samples were analyzed for the following compounds:

- Total purgeable petroleum hydrocarbons (TPH-G) by U.S. Environmental Protection Agency (USEPA) Method 8015,
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by USEPA Method 8020, and
- Total lead by USEPA Method 7421.

Table 1 summarizes the laboratory analytical data for the product line trench samples. Laboratory analytical reports and Chain-of-Custody documentation forms are contained in Appendix B.

6.0 EXCAVATED SOIL STOCKPILING, SAMPLING, AND DISPOSAL

The pea gravel fill material and native soil excavated during trenching at the Site were stockpiled on the west side of the lot. Roux collected composite samples from each 100 cubic yards of stockpiled soil. To prepare the soil for sampling, six to twelve inches of soil were scraped away from the surface of the stockpile. Samples were collected from the prepared surface. Stockpile samples were collected in stainless steel tubes and prepared for transport to the laboratory in the same manner utilized when sampling the bottom of the product line trenches.

The stockpile samples were delivered to Sequoia for chemical analyses. Chain-of-Custody documentation was maintained for all samples. Sequoia combined each set of four stockpile samples into one composite sample for analysis. The composite samples were analyzed for TPH-G by USEPA Method 8015, BTEX by USEPA Method 8020, and Soluble Threshold Limit Concentration (STLC) lead by the Waste Extraction Test/USEPA Method 7421. Laboratory analytical reports and Chain-of-Custody documentation forms are contained in Appendix B.

The laboratory analytical data for the soil stockpiles were provided to the Browning Ferris Industries (BFI) Class III landfill in Livermore, California. Following approval from BFI, the soil stockpiles (approximately 288 cu. yds.) were removed from the Site on February 18 and March 4, 1993 by Dillard Trucking of Byron, California (Dillard), and transported to the BFI facility for disposal. Soil disposal documentation is provided in Appendix C.

7.0 INSTALLATION OF NEW UNDERGROUND PIPING

New double-wall fiberglass product and single-wall vapor return piping was installed from the USTs to the pump islands. New single-wall vent piping was installed from the USTs to the vent risers. As-built drawings of the new product, vapor return and vent piping will be prepared by Watson West, Inc. of Sacramento, California (Watson West).

ARCO plans to implement a vapor and ground water treatment system to remediate the hydrocarbons in the soil and ground water at the Site. RESNA Industries, Inc., of San Jose, has designed the soil and ground water remediation system. To reduce future trenching across the Site, vault boxes and horizontal piping associated with the remediation system were installed by Wilkey concurrently with the installation of the new product, vapor recovery, and vent piping. Vault boxes were installed over existing vapor extraction wells and at the proposed locations of new vapor extraction and ground water recovery wells (Figure 4). Piping and conduits for vapor extraction, ground water recovery, air sparging, and electrical lines were installed in a common trench to connect the vault boxes to the proposed remediation compound location. Four-inch black ABS plastic pipe was also installed in the same trench from the remediation compound to the existing sanitary sewer. A natural gas pipe and an electrical line was installed in a separate trench between the treatment compound and the utility meters.

8.0 SUMMARY OF RESULTS

This section summarizes activities related to piping removal, soil sampling analytical data, excavated soil disposal and installation of the new underground piping at the Site.

8.1 Petroleum Hydrocarbons and Lead in Soil Below the Removed Product Lines

Laboratory analyses of soil samples collected from below the removed product lines at depths of 3.5 to 4.0 ft. bgs indicated TPH-G concentrations ranged from ND to 216 mg/kg, BTEX concentrations ranged from ND to 23 mg/kg, and total lead concentrations from 2.5 to 15 ppm (Table 1). Soil sample L9 contained the highest concentrations of TPH-G and BTEX. Laboratory analyses of L11, collected after over-excavation of the soil in the area of L9, contained no TPH-G or BTEX above the limits of detection.

8.2 Disposal of Soil

Soil generated during line replacement activities was stockpiled on-site and sampled. Analytical data for the stockpiles were supplied to the BFI Class III landfill in Livermore, California. All of the soil generated during Site activities was transported to BFI for disposal.

8.3 Installation of New Underground Piping

Underground product and vapor return piping between the USTs and pump islands were removed, and new double-wall fiberglass product and single-wall vapor return piping were installed. The underground vent piping between the USTs and the vent risers were removed and new single-wall fiberglass piping was installed.

Vault boxes and PVC piping associated with a remediation system designed by RESNA were installed concurrently with the installation of the new product, vapor recovery, and vent piping. Ground water extraction and vapor extraction PVC piping was installed in subsurface trenches from the existing and proposed vapor extraction and recovery well locations to the proposed remediation compound (Figure 4). ABS Plastic piping was installed from the proposed remediation compound location to the existing sewer system.

9.0 REFERENCES

- Applied GeoSystems. 1989. Limited Subsurface Environmental Investigation at 785 East Stanley Boulevard, Livermore, California. AGS Report 69028.2. December 6, 1989.
- Applied GeoSystems. 1991. Limited Subsurface Environmental Investigation Related to the Former Waste-Oil Tank at ARCO Station 6113, 785 East Stanley Boulevard, Livermore, California. AGS Report 69028-4. April 16, 1991.
- Helley, E.S., K.R. LaJoie, W.E. Spangle, and M.L. Blair. 1979. Flatland Deposits of the San Francisco Bay Region, California. U.S. Geological Survey Professional Paper 943.
- Pacific Environmental Group. 1989. April 25, 1989. ARCO Station 6113, 785 East Stanley Boulevard, Livermore, California. Project 330-53.01
- RESNA. 1992a. Letter Report Quarterly Groundwater Monitoring First Quarter 1992 at ARCO Station 6113, 785 East Stanley Boulevard, Livermore, California. RESNA 69028.05. May 4, 1992.
- RESNA. 1992b. Additional Subsurface Investigation and VET at ARCO Station 6113, 785 East Stanley Boulevard, Livermore, California. RESNA 69028.07. October 27, 1992.
- U.S.G.S. 1980. 7½-Minute Topographic Map, Livermore Quadrangle, California, 1961; photo revised 1980.

TABLE 1: Summary of Soil Analyses: Product Line Trenches
 ARCO Facility No. 6113, Livermore, California

Sample Designation	Date	Depth (feet bgs)	TPH-G	BTEX Distinction				Lead
				Benzene	Toluene	Ethylbenzene	Xylenes	
L1	12/11/92	4.0	ND	0.010	0.019	0.0081	0.059	2.5
L2	12/11/92	4.0	14	0.063	0.42	0.28	2.0	5.7
L3	12/11/92	4.0	ND	ND	0.0057	ND	0.033	2.7
L4	12/11/92	4.0	ND	0.0095	0.011	0.0052	0.031	12
L5	12/11/92	4.0	ND	0.0069	0.010	ND	0.028	5.4
L6	12/11/92	4.0	ND	0.064	0.13	ND	0.13	7.9
L7	12/11/92	3.5	7.0	0.59	1.6	0.15	1.1	6.9
L8	12/11/92	3.5	1.3	0.035	0.019	0.0054	0.052	4.4
L9	12/11/92	4.0	210	ND	3.5	3.6	23	11
L10	12/11/92	3.5	1.0	ND	0.0079	ND	0.017	15
L11	12/16/92	6.0	ND	ND	ND	ND	ND	3.3

FOOTNOTES

All concentrations reported in mg/kg (ppm)

TPH-G = Total Purgeable Petroleum Hydrocarbons (USEPA Method 8015)

BTEX Distinction (USEPA Method 8020)

Lead = Total Lead (USEPA Method 7421)

ND = Not Detected (for detection limits see laboratory reports in Appendix B)

bgs = Below ground surface

TABLE 2: Summary of Soil Analyses: Soil Stockpiles
 ARCO Facility No. 6113, Livermore, California

Sample Designation	Date	TPH-G (1)	BTEX Distinction (1)				Total	STLC
			Benzene	Toluene	Ethylbenzene	Xylenes	Lead (1)	Lead (2)
CS 1	12/11/92	33	0.066	0.92	0.66	3.9	43	NA
CS 2	12/16/92	1.4	ND	0.011	0.0085	0.045	NA	0.29
CS 3	2/18/93	12	0.0052	ND	0.0075	0.042	8.8	NA

FOOTNOTES

(1) = Concentrations reported in mg/kg (ppm)

(2) = Concentrations reported in mg/L (ppm)

TPH-G = Total Purgeable Petroleum Hydrocarbons (USEPA Method 8015)

BTEX Distinction (USEPA Method 8020)

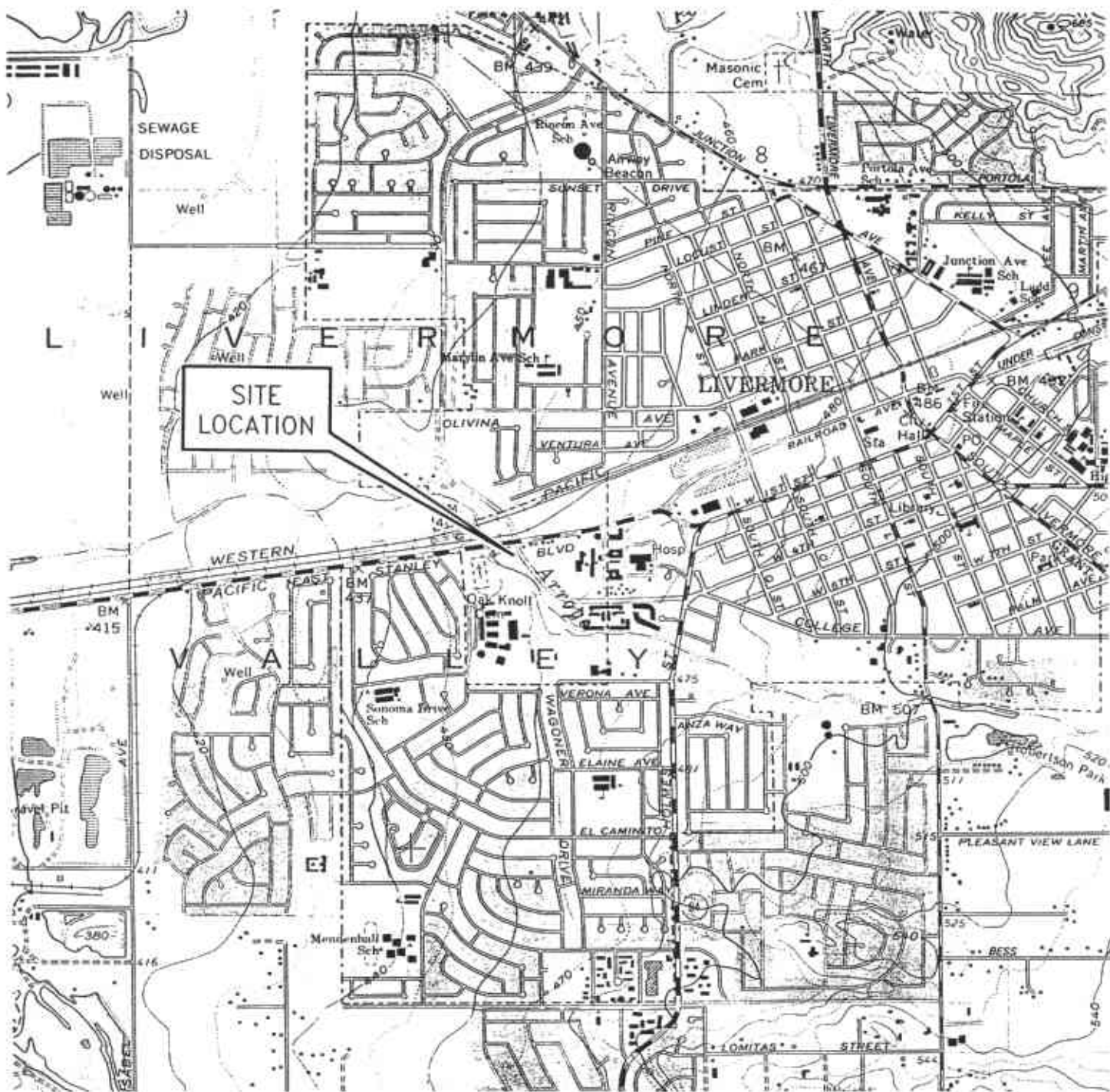
Total Lead = Total Lead (USEPA Method 7421)

STLC Lead = Soluble Threshold Limit Concentration Lead (Waste Extraction Test/USEPA Method 7421)

ND = Not Detected (for detection limits see laboratory reports in Appendix B)

bgs = Below ground surface

NA = Not Analyzed



SOURCE:
USGS QUADRANGLE OF
LIVERMORE, CALIFORNIA 1980



ROUX
ROUX ASSOCIATES
ENVIRONMENTAL CONSULTING
& MANAGEMENT

COMPILED BY: T.R.
PREPARED BY: R.P.
PROJECT MNGR. P.S.
DATE: 01/93
SCALE: AS SHOWN
PROJECT NO. A154W01
FILE NAME: 6113TOPO

PREPARED FOR:
TITLE:

ARCO Products Company

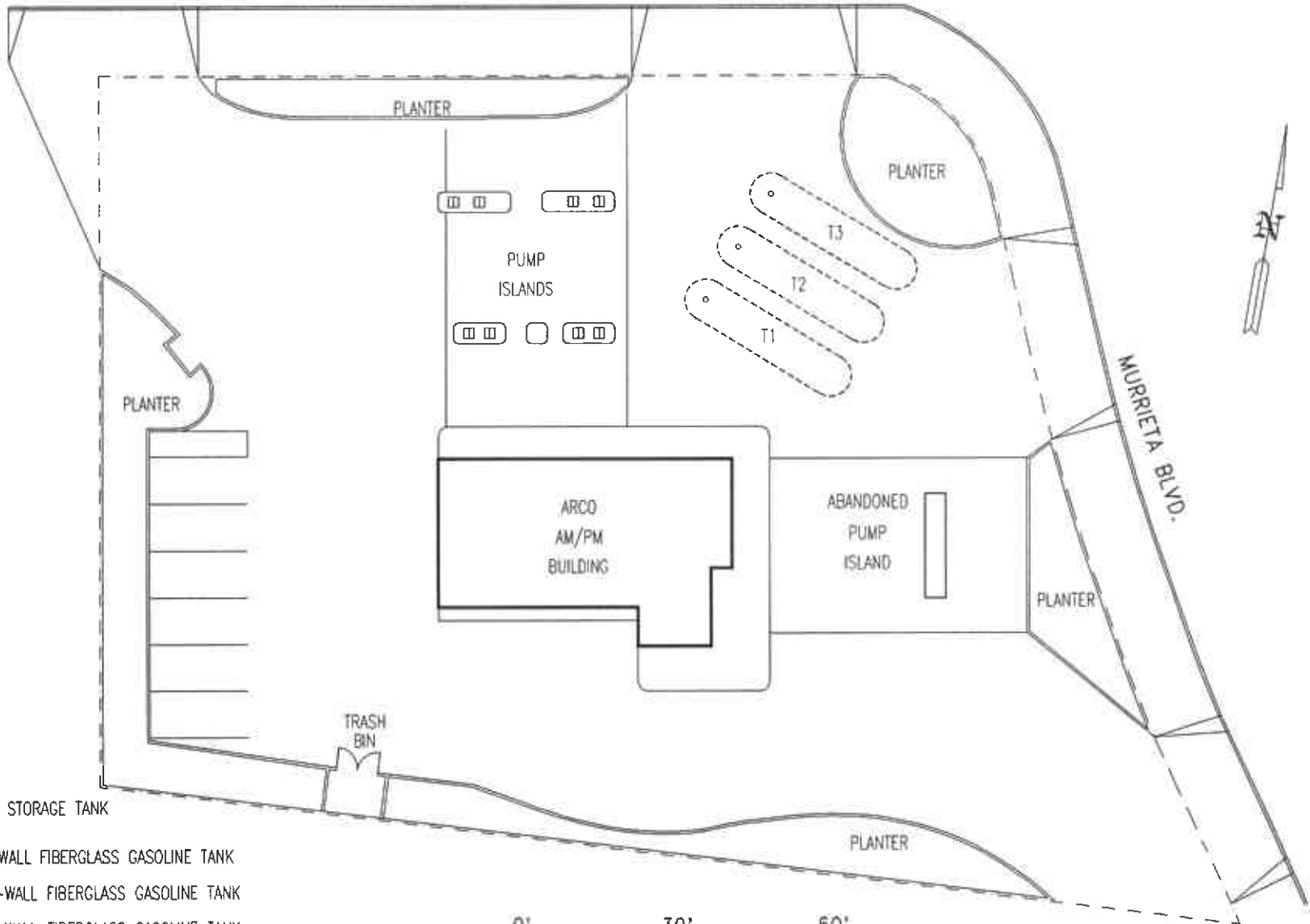
SITE LOCATION

ARCO FACILITY NO. 6113

FIGURE

1

EAST STANLEY BLVD.

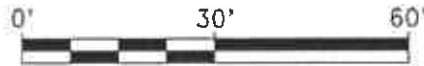


EXPLANATION:



UNDERGROUND GASOLINE STORAGE TANK

- T1 12,000 GALLON SINGLE-WALL FIBERGLASS GASOLINE TANK
- T2 12,000 GALLON DOUBLE-WALL FIBERGLASS GASOLINE TANK
- T3 12,000 GALLON DOUBLE-WALL FIBERGLASS GASOLINE TANK
- o FILL PORT



APPROXIMATE SCALE

SOURCE:
 MAP MODIFIED FROM BLUEPRINT PROVIDED BY,
 WATSON WEST, INC. SEPTEMBER 1992.



COMPILED BY: T.R.
 PREPARED BY: R.P.
 PROJECT MNGR: P.S.
 DATE: 03/93
 SCALE: AS SHOWN
 PROJECT NO.: A154W01
 FILE NAME: AR6113XX

PREPARED FOR:
 TITLE:

ARCO Products Company ◆

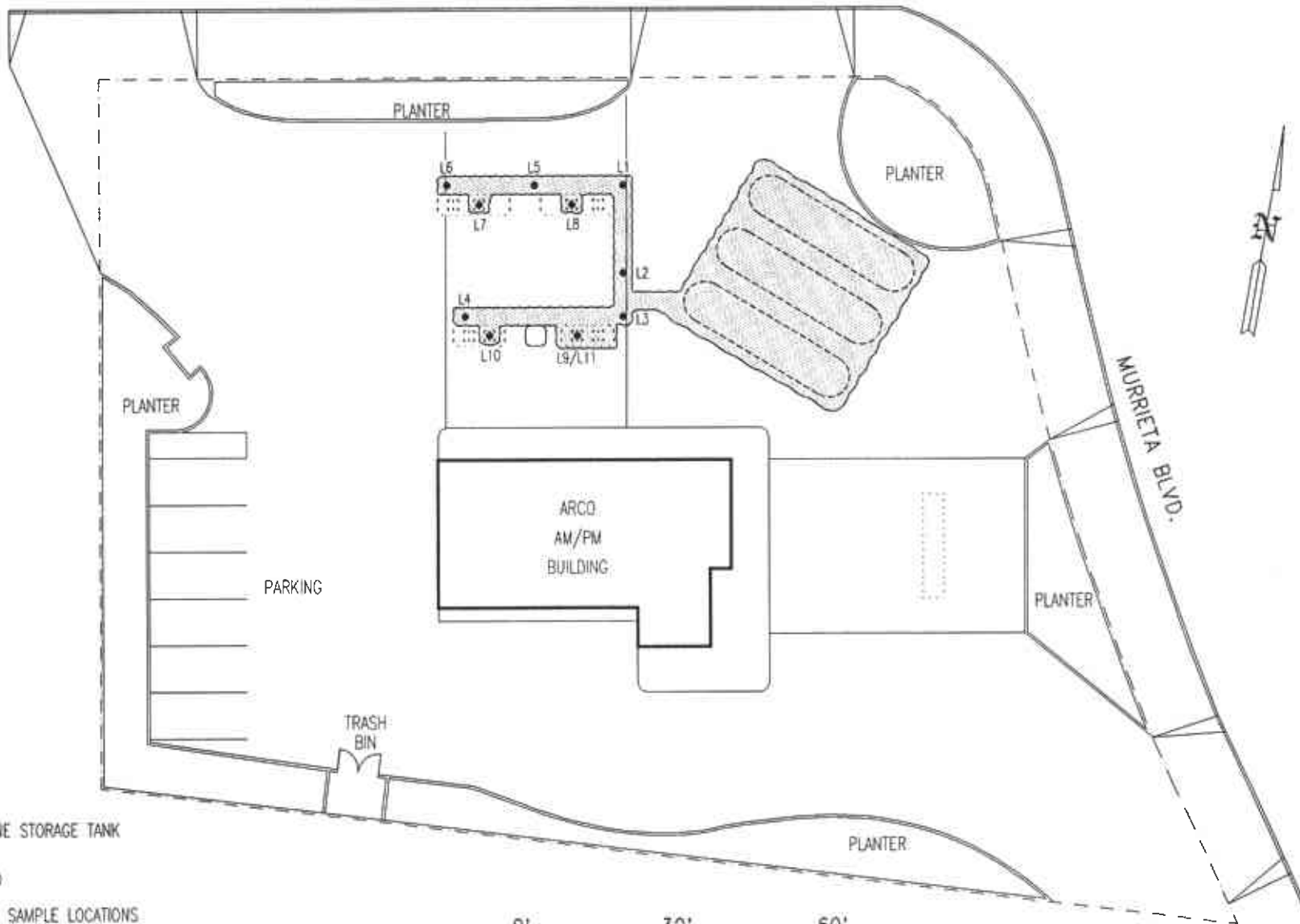
SITE PLAN

ARCO FACILITY NO. 6113





FIGURE

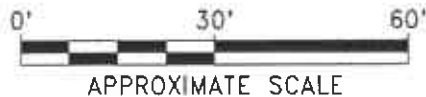
2

EAST STANLEY BLVD.



EXPLANATION:

-  UNDERGROUND GASOLINE STORAGE TANK
-  REMOVED PUMP ISLAND
-  L6 PRODUCT LINE TRENCH SAMPLE LOCATIONS
-  EXCAVATED AREA



SOURCE:
 MAP MODIFIED FROM BLUEPRINT PROVIDED BY,
 WATSON WEST, INC. SEPTEMBER 1992.



COMPILED BY: T.R.
 PREPARED BY: R.P.
 PROJECT MNGR. P.S.
 DATE: 03/93
 SCALE: AS SHOWN
 PROJECT NO. A154W01
 FILE NAME: AR6113XX

PREPARED FOR:
 TITLE:

ARCO Products Company

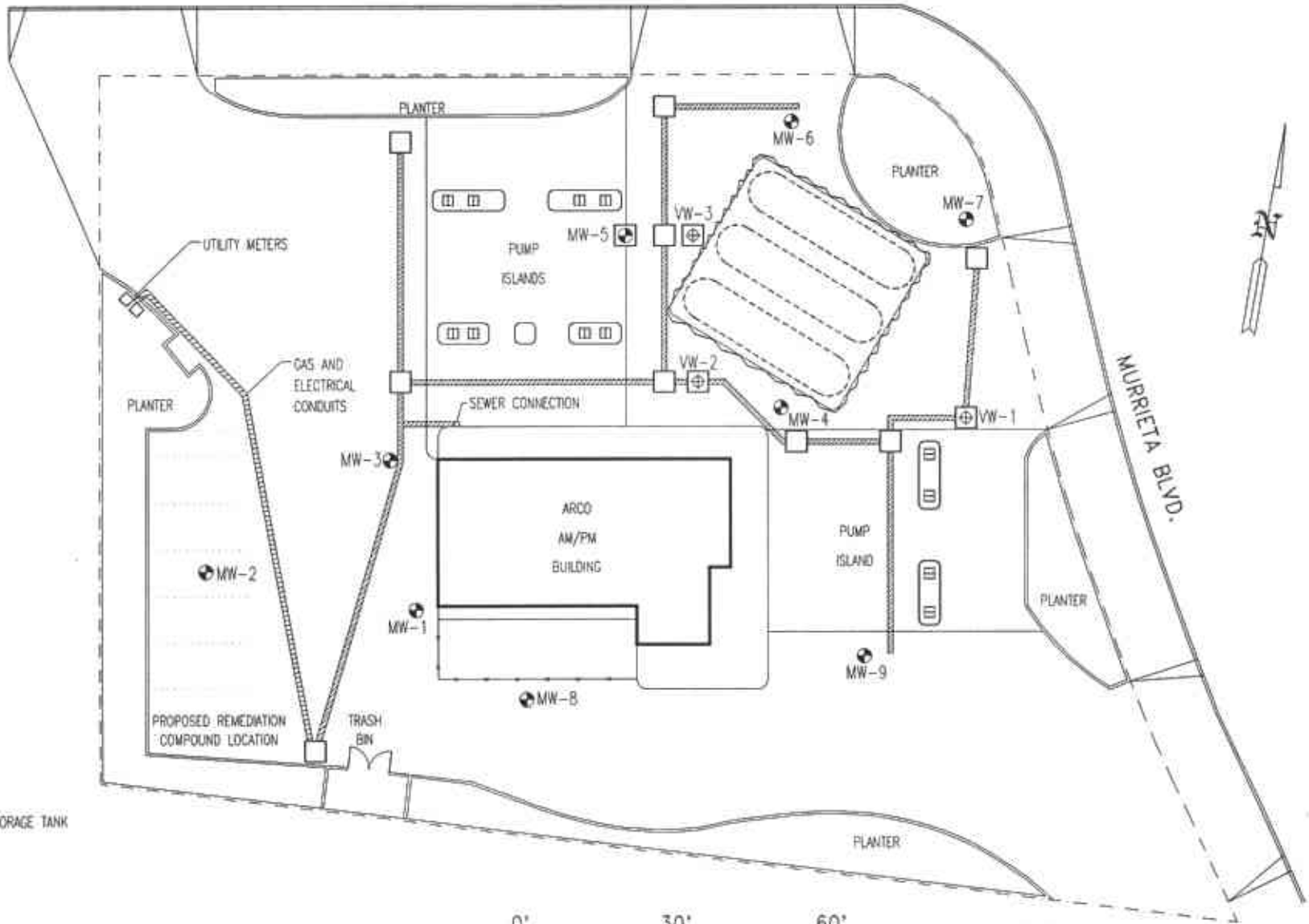
LOCATION OF SOIL SAMPLES

ARCO FACILITY NO. 6113

FIGURE

3

EAST STANLEY BLVD.



EXPLANATION:

- UNDERGROUND GASOLINE STORAGE TANK
- VAULT BOX
- PIPING TRENCH
- MW-5 EXISTING MONITORING WELL
- VW-3 EXISTING VAPOR EXTRACTION WELL



SOURCE:
MAP MODIFIED FROM BLUEPRINT PROVIDED BY,
WATSON WEST, INC. SEPTEMBER 1992.

<p>ROUX ROUX ASSOCIATES ENVIRONMENTAL CONSULTING & MANAGEMENT</p>	COMPILED BY: T.R.	PREPARED FOR:
	PREPARED BY: R.P.	ARCO Products Company
	PROJECT MNGR. P.S.	TITLE:
	DATE: 03/93	REMEDIATION SYSTEM PIPING
	SCALE: AS SHOWN	ARCO FACILITY NO. 6113
	PROJECT NO. A154W01	
FILE NAME: AR6113XX		

FIGURE

4

APPENDIX A

Summary of Daily Site Activities

DAILY SITE ACTIVITIES
ARCO Facility No. 6113

<u>Date</u>	<u>Activity</u>	<u>By</u>
11/30/92	Preconstruction meeting.	ARCO, Roux, Wilkey, RESNA
12/8/92	Began work on line replacement. Cut and removed pavement over tanks, installed fence around Site.	Wilkey
12/9/92	Removed fill over tanks.	Wilkey
12/10/92	Cut pavement over lines. Removed product lines.	Wilkey
12/11/92	Collected soil samples below lines and dispensers.	Roux, Wilkey, ACDEH
12/16/92	Overexcavated area around sample location L9, collected sample L11 from base of excavation.	Roux, Wilkey, ACDEH
12/21/92	Began installation of new product piping system.	Wilkey
1/20/93	Meeting to discuss remediation system installation.	RESNA, Roux, Wilkey
2/5/93	Completed installation of new product piping system.	Wilkey
2/8/93	Began work on piping for remediation system.	Wilkey, Roux
2/9/93	Worked on piping for remediation system.	Wilkey, Roux
2/10/93	Worked on piping for remediation system.	Wilkey, Roux, RESNA
2/11/93	Worked on piping for remediation system.	Wilkey, Roux
2/12/93	Worked on piping for remediation system.	Wilkey, Roux
2/15/93	Worked on piping for remediation system.	Wilkey, Roux
2/16/93	Worked on piping for remediation system.	Wilkey, Roux
2/17/93	Continued work on remediation system, pressure tested vapor lines.	Wilkey, Roux
2/18/93	Worked on piping for remediation system. Hauled soil stockpiles CS1 and CS2 to BFI landfill. Building inspector disapproved PVC electrical conduit.	Wilkey, Roux Dillard Livermore Building Dept.

FOOTNOTES

ACDEH Alameda Co. Dept. of Environmental Health
Dillard Dillard Trucking
RESNA RESNA Industries, Inc.
Roux Roux Associates
Wilkey Wilkey's Engineering

DAILY SITE ACTIVITIES
ARCO Facility No. 6113

Date	Activity	By
2/19/93	Cut pavement over main power line.	Wilkey
2/22/93	Worked on piping for remediation system.	Wilkey, Roux
2/23/93	Began replacing electrical conduit. Installed main power line.	Wilkey
2/24/93	Completed replacement of electrical conduit.	Wilkey
2/25/93	Backfilled remediation system trenches.	Wilkey, Roux
2/26/93	Compacted backfill.	Wilkey
2/27/93	Compacted backfill, built framing for concrete.	Wilkey, Roux
3/1/93	Poured concrete around vault boxes.	Wilkey, Roux
3/4/93	Hauled soil stockpile CS3 to BFI landfill. Cleaned pavement, compacted trenches, framed around well boxes.	Dillard Wilkey, Roux
3/5/93	Set concrete around well and vault boxes.	Wilkey, Roux
3/8/93	Cleaned Site in preparation for paving.	Wilkey
3/9/93	Paved Site.	Wilkey
3/10/93	Worked on sidewalk, painting, sealing pavement, etc.	Wilkey
3/11/93	Worked on sidewalk, painting, sealing pavement, etc.	Wilkey
3/12/93	Worked on sidewalk, painting, sealing pavement, etc.	Wilkey
3/15/93	Poured concrete for sidewalk.	Wilkey
3/17/93	Poured concrete slabs for utility boxes.	Wilkey

FOOTNOTES

ACDEH Alameda Co. Dept. of Environmental Health
Dillard Dillard Trucking
RESNA RESNA Industries, Inc.
Roux Roux Associates
Wilkey Wilkey's Engineering

APPENDIX B

**Laboratory Analytical Reports and
Chain-of-Custody Documentation**



SEQUOIA ANALYTICAL

RECEIVED DEC 17 1992

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Roux Associates
1855 Gateway Blvd. Suite 770
Concord, CA 94520
Attention: Paul Supple

Client Project ID: Arco #6113-92-1A/ Livermore
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 212-0518

Sampled: Dec 11, 1992
Received: Dec 11, 1992
Reported: Dec 15, 1992

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-0518 L1	Sample I.D. 212-0519 L2	Sample I.D. 212-0520 L3	Sample I.D. 212-0521 L4	Sample I.D. 212-0522 L5	Sample I.D. 212-0523 L6
Purgeable Hydrocarbons	1.0	N.D.	14	N.D.	N.D.	N.D.	N.D.
Benzene	0.005	0.010	0.063	N.D.	0.0095	0.0069	0.064
Toluene	0.005	0.019	0.42	0.0057	0.011	0.010	0.13
Ethyl Benzene	0.005	0.0081	0.28	N.D.	0.0052	N.D.	N.D.
Total Xylenes	0.005	0.059	2.0	0.033	0.031	0.028	0.13
Chromatogram Pattern:		--	Gasoline	--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	10	1.0	1.0	1.0	1.0
Date Analyzed:	12/13/92	12/11/92	12/11/92	12/13/92	12/13/92	12/13/92
Instrument Identification:	HP-4	HP-5	HP-5	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	100	105	104	102	107	102

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Kenneth K.F. Lee
Laboratory Director

2120518.ROU <1>



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1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Roux Associates	Client Project ID: Arco #6113-92-1A/ Livermore	Sampled: Dec 11, 1992
1855 Gateway Blvd. Suite 770	Sample Matrix: Soil	Received: Dec 11, 1992
Concord, CA 94520	Analysis Method: EPA 5030/8015/8020	Reported: Dec 15, 1992
Attention: Paul Supple	First Sample #: 212-0524	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-0524 L7	Sample I.D. 212-0525 L8	Sample I.D. 212-0526 L9	Sample I.D. 212-0527 L10	Sample I.D. 212-0528 CS1 (A-D)
Purgeable Hydrocarbons	1.0	7.0	1.3	210	1.0	33
Benzene	0.005	0.59	0.035	N.D.	N.D.	0.066
Toluene	0.005	1.6	0.019	3.5	0.0079	0.92
Ethyl Benzene	0.005	0.15	0.0054	3.6	N.D.	0.66
Total Xylenes	0.005	1.1	0.052	23	0.017	3.9
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	2.0
Date Analyzed:	12/11/92	12/13/92	12/11/92	12/13/92	12/13/92
Instrument Identification:	HP-5	HP-4	HP-5	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	105	101	106	101	96

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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Laboratory Director



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Roux Associates
1855 Gateway Blvd. Suite 770
Concord, CA 94520
Attention: Paul Supple

Client Project ID: Arco #6113-92-1A/ Livermore
Sample Descript: Soil
Analysis for: Lead
First Sample #: 212-0518

Sampled: Dec 11, 1992
Received: Dec 11, 1992
Extracted: Dec 14, 1992
Analyzed: Dec 14, 1992
Reported: Dec 15, 1992

LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
212-0518	L1	0.25	2.5
212-0519	L2	0.25	5.7
212-0520	L3	0.25	2.7
212-0521	L4	0.25	12
212-0522	L5	0.25	5.4
212-0523	L6	0.25	7.9
212-0524	L7	0.25	6.9
212-0525	L8	0.25	4.4
212-0526	L9	0.25	11
212-0527	L10	0.25	15
212-0528	CS1 (A-D)	0.25	43

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

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Laboratory Director

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Roux Associates
1855 Gateway Blvd. Suite 770
Concord, CA 94520
Attention: Paul Supple

Client Project ID: Arco #6113-92-1A/ Livermore

QC Sample Group: 2120518-528

Reported: Dec 15, 1992

QUALITY CONTROL DATA REPORT

ANALYTE

	Benzene	Toluene	Ethyl-Benzene	Xylenes	Lead
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Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 7421
Analyst:	A.P.	A.P.	A.P.	A.P.	K.V.S.
Reporting Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	Dec 13, 1992	Dec 13, 1992	Dec 13, 1992	Dec 13, 1992	Dec 14, 1992
QC Sample #:	212-0292	212-0292	212-0292	212-0292	212-0527

Sample Conc.:	N.D.	N.D.	N.D.	N.D.	15
Spike Conc. Added:	0.40	0.40	0.40	1.2	12
Conc. Matrix Spike:	0.36	0.38	0.39	1.27	26
Matrix Spike % Recovery:	90	95	98	106	92
Conc. Matrix Spike Dup.:	0.37	0.38	0.39	1.25	26
Matrix Spike Duplicate % Recovery:	93	95	98	104	92
Relative % Difference:	2.7	0.0	0.0	1.6	0.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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Kenneth K.F. Lee
Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$



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RECEIVED DEC 31 1992

Roux Associates 1855 Gateway Blvd. Suite 770 Concord, CA 94520 Attention: Todd Ramsden	Client Project ID: #6113-92-1A / Arco #6113, Livermore Sample Matrix: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 212-0716	Sampled: Dec 16, 1992 Received: Dec 16, 1992 Reported: Dec 29, 1992
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TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-0716 L11
Purgeable Hydrocarbons	1.0	N.D.
Benzene	0.005	N.D.
Toluene	0.005	N.D.
Ethyl Benzene	0.005	N.D.
Total Xylenes	0.005	N.D.
Chromatogram Pattern:		--

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	12/21/92
Instrument Identification:	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	104

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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Roux Associates
1855 Gateway Blvd. Suite 770
Concord, CA 94520
Attention: Todd Ramsden

Client Project ID: #6113-92-1A / Arco #6113, Livermore
Sample Descript: Soil, L11
Lab Number: 212-0716

Sampled: Dec 16, 1992
Received: Dec 16, 1992
Extracted: Dec 23, 1992
Analyzed: Dec 28, 1992
Reported: Dec 29, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Lead	0.25	3.3

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

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Laboratory Director



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Roux Associates
1855 Gateway Blvd. Suite 770
Concord, CA 94520
Attention: Todd Ramsden

Client Project ID: #6113-92-1A / Arco #6113, Livermore

QC Sample Group: 212-0716

Reported: Dec 29, 1992

QUALITY CONTROL DATA REPORT

ANALYTE

	Benzene	Toluene	Ethyl-Benzene	Xylenes	Lead
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Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 7421
Analyst:	J.F.	J.F.	J.F.	J.F.	K.V.S.
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992	Dec 28, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	212-0716

Sample Conc.:	N.D.	N.D.	N.D.	N.D.	3.3
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Spike Conc. Added:	0.40	0.40	0.40	1.2	50
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Conc. Matrix Spike:	0.46	0.44	0.44	1.4	50
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Matrix Spike % Recovery:	115	110	110	116	93
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Conc. Matrix Spike Dup.:	0.46	0.44	0.45	1.4	52
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Matrix Spike Duplicate % Recovery:	115	110	112	116	97
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Relative % Difference:	0.0	0.0	2.2	0.0	3.9
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Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

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Laboratory Director



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RECEIVED JAN 3 1992

Roux Associates	Client Project ID: #6113-92-1A / Arco #6113, Livermore	Sampled: Dec 16, 1992
1855 Gateway Blvd. Suite 770	Sample Matrix: Soil	Received: Dec 17, 1992
Concord, CA 94520	Analysis Method: EPA 5030/8015/8020	Reported: Dec 29, 1992
Attention: Todd Ramsden	First Sample #: 212-0729	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-0729 CS-2(A-D)
Purgeable Hydrocarbons	1.0	1.4
Benzene	0.0050	N.D.
Toluene	0.0050	0.011
Ethyl Benzene	0.0050	0.0085
Total Xylenes	0.0050	0.045
Chromatogram Pattern:		Non-Gasoline Mixture

Quality Control Data	
Report Limit Multiplication Factor:	1.0
Date Analyzed:	12/29/92
Instrument Identification:	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	99

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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Laboratory Director



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Roux Associates 1855 Gateway Blvd. Suite 770 Concord, CA 94520 Attention: Todd Ramsden	Client Project ID: #6113-92-1A / Arco #6113, Livermore Sample Matrix: TCLP Extract of Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 212-0729	Sampled: Dec 16, 1992 Received: Dec 17, 1992 Reported: Dec 29, 1992
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TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/L	Sample I.D. 212-0729 CS-2(A-D)
Purgeable Hydrocarbons	1.0	N.D.
Benzene	0.010	N.D.
Toluene	0.010	N.D.
Ethyl Benzene	0.010	N.D.
Total Xylenes	0.010	N.D.
Chromatogram Pattern:		--

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	12/21/92
Instrument Identification:	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	102

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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Laboratory Director



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Roux Associates
1855 Gateway Blvd. Suite 770
Concord, CA 94520
Attention: Todd Ramsden

Client Project ID: #6113-92-1A / Arco #6113, Livermore
Sample Descript: STLC Extract of Soil
Analysis for: STLC Lead
First Sample #: 212-0729

Sampled: Dec 16, 1992
Received: Dec 17, 1992
Extracted: Dec 23, 1992
Analyzed: Dec 28, 1992
Reported: Dec 29, 1992

LABORATORY ANALYSIS FOR: STLC Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
212-0729	CS-2(A-D)	0.0050	0.29

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

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Laboratory Director



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Roux Associates	Client Project ID: #6113-92-1A / Arco #6113, Livermore	Sampled: Dec 16, 1992
1855 Gateway Blvd. Suite 770	Sample Descript: Soil, CS-2(A-D)	Received: Dec 17, 1992
Concord, CA 94520		Analyzed: 12/17-12/28/92
Attention: Todd Ramsden	Lab Number: 212-0729	Reported: Dec 29, 1992

CORROSIVITY, IGNITABILITY, AND REACTIVITY

Analyte	Detection Limit	Sample Results
Corrosivity: pH.....	N.A.	7.3
Ignitability: Flashpoint (Pensky-Martens), °C.....	N.A.	> 100 °C
Reactivity: Sulfide, mg/kg.....	10	N.D.
Cyanide, mg/kg.....	0.50	N.D.
Reaction with water.....	N.A.	Negative

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

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Roux Associates
1855 Gateway Blvd. Suite 770
Concord, CA 94520
Attention: Todd Ramsden

Client Project ID: #6113-92-1A / Arco #6113, Livermore

QC Sample Group: 212-0729

Reported: Dec 29, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Cyanide	Sulfide	STLC Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 9010	EPA 9030	EPA 7421
Analyst:	J.F.	J.F.	J.F.	J.F.	A. Savva	N. Zahedi	K.V.S.
Reporting Units:	µg/L	µg/L	µg/L	µg/L	mg/kg	mg/kg	mg/L
Date Analyzed:	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992	Dec 17, 1992	Dec 22, 1992	Dec 28, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	212-2310	212-3837	212-0528
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.3
Spike Conc. Added:	20	20	20	60	10	1300	1.0
Conc. Matrix Spike:	20	20	21	70	9.8	1400	2.1
Matrix Spike % Recovery:	100	100	105	117	98	108	80
Conc. Matrix Spike Dup.:	22	22	22	75	10	1400	2.2
Matrix Spike Duplicate % Recovery:	110	100	105	125	100	108	90
Relative % Difference:	9.5	0.0	0.0	6.9	2.0	0.0	4.6

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

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Roux Associates
1855 Gateway Blvd. Suite 770
Concord, CA 94520
Attention: Todd Ramsden

Client Project ID: #6113-92-1A / Arco #6113, Livermore

QC Sample Group: 212-0729

Reported: Dec 29, 1992

QUALITY CONTROL DATA REPORT

ANALYTE

	pH	Ignitability	Benzene	Toluene	Ethyl-Benzene	Xylenes
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Method:	EPA 9045	EPA 1010	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	B. Pascalli	K. Anderson	A.T.	A.T.	A.T.	A.T.
Reporting Units:	N/A	°C	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Dec 17, 1992	Dec 28, 1992	Dec 29, 1992	Dec 29, 1992	Dec 29, 1992	Dec 29, 1992
QC Sample #:	212-0729	Xylenes: F.P. = 29°C	212-0680	212-0680	212-0680	212-0680
Sample Conc.:	7.3	27	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	N/A	N/A	0.40	0.40	0.40	0.40
Conc. Matrix Spike:	N/A	N/A	0.43	0.42	0.43	1.3
Matrix Spike % Recovery:	N/A	N/A	108	105	108	108
Conc. Matrix Spike Dup.:	7.3	28	0.44	0.43	0.44	1.4
Matrix Spike Duplicate % Recovery:	N/A	N/A	110	108	110	116
Relative % Difference:	0.0	3.6	2.2	2.3	2.2	7.4

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Kenneth K.F. Lee
Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$



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RECEIVED FEB 26 1993

Roux Associates	Client Project ID: #6113-92-1A/Arco #6113, Livermore	Sampled: Feb 18, 1993
1855 Gateway Blvd., Ste. 770	Sample Matrix: Soil	Received: Feb 19, 1993
Concord, CA 94520	Analysis Method: EPA 5030/8015/8020	Reported: Feb 23, 1993
Attention: Paul Supple	First Sample #: 302-0610	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 302-0610 CS 3(A-D)
Purgeable Hydrocarbons	1.0	12
Benzene	0.005	0.0052
Toluene	0.005	N.D.
Ethyl Benzene	0.005	0.0075
Total Xylenes	0.005	0.042
Chromatogram Pattern:		Non-Gasoline Mixture (> C9)

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	2/19/93
Instrument Identification:	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	108

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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Roux Associates
1855 Gateway Blvd., Ste. 770
Concord, CA 94520
Attention: Paul Supple

Client Project ID: #6113-92-1A/Arco #6113, Livermore
Sample Descript: Soil
Analysis for: Lead
First Sample #: 302-0610

Sampled: Feb 18, 1993
Received: Feb 19, 1993
Extracted: Feb 22, 1993
Analyzed: Feb 22, 1993
Reported: Feb 23, 1993

LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
302-0610	CS 3(A-D)	5.0	8.8

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

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Laboratory Director



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Roux Associates
1855 Gateway Blvd., Ste. 770
Concord, CA 94520
Attention: Paul Supple

Client Project ID: #6113-92-1A/Arco #6113, Livermore

QC Sample Group: 302-0610

Reported: Feb 23, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 7421
Analyst:	J.F.	J.F.	J.F.	J.F.	K.V.S.
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Feb 19, 1993	Feb 19, 1993	Feb 19, 1993	Feb 19, 1993	Feb 22, 1993
QC Sample #:	302-0553	302-0553	302-0553	302-0553	302-0599
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	5.3
Spike Conc. Added:	0.40	0.40	0.40	1.2	12
Conc. Matrix Spike:	0.46	0.44	0.43	1.36	17
Matrix Spike % Recovery:	115	110	108	113	98
Conc. Matrix Spike Dup.:	0.45	0.43	0.42	1.34	18
Matrix Spike Duplicate % Recovery:	112	108	105	112	106
Relative % Difference:	2.2	2.3	2.4	1.5	5.7

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

ARCO Facility no. 6113	City (Facility) LIVERMORE	Project manager (Consultant) PAUL SUPPLE	Laboratory name SEQUOIA
ARCO engineer CHUCK CARMEL	Telephone no. (ARCO)	Telephone no. (Consultant) (510) 602-2333	Contract number
Consultant name ROY ASSOCIATES		Address (Consultant) 1855 GATEWAY BLVD. SUITE 770 CONCORD	
		Fax no. (Consultant) (510) 687-1258	Method of shipment HAND

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA 14602/8020/8015	TPH Modified 8015 Gas <input type="checkbox"/> Diesel <input type="checkbox"/>	Oil and Grease 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/>	TPH EPA 418.1/SM4503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals <input type="checkbox"/> VOCs <input type="checkbox"/> VOA <input type="checkbox"/>	CAM Metals EPA 6010/7000 TLCL <input type="checkbox"/> STLC <input type="checkbox"/>	Lead Org./DHS Lead EPA 7420/7421 <input checked="" type="checkbox"/>	
			Soil	Water	Other	Ice	Acid														
L1		1	X			X		12/11/92	1100	X											X
L2		1	X			X			1105	X											X
L3		1	X			X			1112	X											X
L4		1	X			X			1120	X											X
L5		1	X			X			1125	X											X
L6		1	X			X			1132	X											X
L7		1	X			X			1140	X											X
L8		1	X			X			1145	X											X
L9		1	X			X			1155	X											X
L10		1	X			X			1215	X											X
CSIA-D		4	X			X			1500	X											X

Special detection Limit/reporting
Special QA/QC
Remarks
Lab number
Turnaround time

Condition of sample:	Temperature received:		
Relinquished by sampler <i>Kathy [Signature]</i>	Date 12/11/92 Time 1655	Received by <i>[Signature]</i>	Priority Rush 1 Business Day <input checked="" type="checkbox"/>
Relinquished by	Date	Received by	Rush 2 Business Days <input type="checkbox"/>
Relinquished by	Date	Received by laboratory	Expedited 5 Business Days <input type="checkbox"/>
	Date		Standard 10 Business Days <input type="checkbox"/>

APPENDIX C
Soil Disposal Documentation

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No. -

FI Waste Code	<u>C</u> <u>A</u>	Description of Waste	<u>4 0 5 1 2 3 0 9 2</u>	Quantity	<u>0 0 0 1 8</u>	Units	<u>Y</u>	Containers No.	<u>0</u>	Type	<u>T</u>
		<u>NON HAZARDOUS SOIL</u>									

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name Signature Shipment Date 021893

TRANSPORTER

Truck No. 489-280 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/18 Driver Name (Print) Bill Lawrence
 Address P. O. Box 218 Vehicle License No./State 1V86168
Lyron, California 94544 Vehicle Certification 401496

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature Bill Lawrence Shipment Date 051893 Driver Signature Bill Lawrence Delivery Date 021894

DESTINATION

Site Name B.F.I. Vasco Road Landfill Phone No. 5 1 0 - 4 4 7 0 4 9 1
 Address 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate

Name of Authorized Agent Signature Receipt Date 021894

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No.

BFI Waste Code C A 4 0 5 1 2 3 0 9 2 1 1 6 8 6 Containers Type
 Description of Waste NON HAZARDOUS SOIL Quantity 0 0 0 1 8 Units Y No. 0 Type T
 D - Drum
 C - Carton
 B - Bag
 T - Truck
 P - Pounds
 Y - Yards
 O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date

TRANSPORTER

Truck No. 489-280 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/18 Driver Name (Print) Bud Lawrence
 Address P. O. Box 218 Vehicle License No./State NB36168
Cyron, California 94544 Vehicle Certification 401496

I hereby certify that the above named material was picked up at the generator site listed above.

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature [Signature] Shipment Date 021893 Driver Signature [Signature] Delivery Date 021893

DESTINATION

Site Name B.F.I. Vasco Road Landfill Phone No. 5 1 0 - 4 4 7 0 4 9 1
 Address 4901 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 021893

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 783 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No.

Waste Code	Description of Waste	Quantity	Units	Containers		Type
				No.	Type	
<u>C A</u>	<u>4 0 5 1 2 3 0 9 2</u>	<u>1 1 6 8 6</u>	<u>Y</u>	<u>0 /</u>	<u>T</u>	
	<u>NON HAZARDOUS SOIL</u>	<u>0 0 0 1 8</u>				

- Type
- D - Drum
- C - Carton
- B - Bag
- T - Truck
- P - Pounds
- Y - Yards
- O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date

TRANSPORTER

Truck No. 489-280 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/18 Driver Name (Print) Paul Lawrence
 Address P. O. Box 218 Vehicle License No./State 1N56168
Byron, California 94544 Vehicle Certification 401469

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature [Signature] Shipment Date 02 1 9 9 3 Driver Signature [Signature] Delivery Date 02 1 9 9 3

DESTINATION

Name B.F.I. Vasco Road Landfill Phone No. 5 1 0 - 4 4 2 0 4 3 1
 Address 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 02 1 9 9 3

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No. -

Waste Code C A 4 0 5 1 2 3 0 9 2 1 1 6 8 6 Containers Type
 Description of Waste NON HAZARDOUS SOIL Quantity 0 0 0 1 8 Units Y No. 0 / Type T
 Legend: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date

TRANSPORTER

Truck No. 489-280 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/18 Driver Name (Print) Bob Lawrence
 Address P. O. Box 218 Vehicle License No./State NV86118
Byron, California 94544 Vehicle Certification 401496

I hereby certify that the above named material was picked up at the generator site listed above.

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature [Signature] Shipment Date 051893 Driver Signature [Signature] Delivery Date 041313

DESTINATION

Site Name B.F.I. Vasco Road Landfill Phone No. 3 1 0 - 4 4 7 0 4 9 1
 Address 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 7/13/93

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No.

FI Waste Code	<u>C A</u>	<u>4 0 5</u>	<u>1 2 3 0 9 2</u>	<u>1 1 6 8 6</u>	Containers	Type		
Description of Waste					Quantity	Units	No.	Type
NON HAZARDOUS SOIL					<u>0 0 0 1 8</u>	<u>Y</u>	<u>0</u>	<u>T</u>

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date 021893

TRANSPORTER

Truck No. 189 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/18 Driver Name (Print) B. Lee
 Address P. O. Box 218 Vehicle License No./State CP07729
Byron, California 94544 Vehicle Certification 401492

I hereby certify that the above named material was picked up at the generator site listed above.

I hereby certify that the above named material was delivered without incident to the destination listed below.

Generator Signature [Signature] Shipment Date 021893 Driver Signature [Signature] Delivery Date 021893

DESTINATION

Name B.F.I. Vasco Road Landfill Phone No. 5 1 0 - 4 4 7 0 4 9 1
 Address 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No. -

FI Waste Code C A 4 0 5 1 2 3 0 9 2 1 1 6 8 6 Containers Type
 Description of Waste NON HAZARDOUS SOIL. Quantity 0 0 0 1 8 Units Y No. 0 Type T

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date 02/18/93

TRANSPORTER

Truck No. 189 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/18 Driver Name (Print) B. Lee
 Address P. O. Box 218 Vehicle License No./State CPD7729
Byron, California 94544 Vehicle Certification 401492

I hereby certify that the above named material was picked up at the generator site listed above.

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature [Signature] Shipment Date 02/18/93 Driver Signature [Signature] Delivery Date 02/18/93

DESTINATION

Site Name B.F.I. Vasco Road Landfill Phone No. 3 1 0 - 4 4 7 0 4 9 1
 Address 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No. -

FI Waste Code C A Description of Waste NON HAZARDOUS SOIL Quantity 0 0 0 1 8 Units Y Containers No. / Type 0 / T
1 1 6 8 6 1 1 6 8 6

Type	D - Drum
	C - Carton
	B - Bag
	T - Truck
	P - Pounds
	Y - Yards
	O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date 02/18/93

TRANSPORTER

Truck No. 189 Phone No. 310-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/18 Driver Name (Print) B. Lee
 Address P. O. Box 218 Vehicle License No./State CP07729
Cyren, California 94544 Vehicle Certification 401492

I hereby certify that the above named material was picked up at the generator site listed above.

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature [Signature] Shipment Date 02/18/93 Driver Signature [Signature] Delivery Date 02/18/93

DESTINATION

Site Name B.F.L. Vasco Road Landfill Phone No. 5 1 0 - 4 4 7 0 - 9 1
 Address 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 02/18/93

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No.

BFI Waste Code	<u>C A</u>	<u>4 0 5</u>	<u>1 2 3 0 9 2</u>	<u>1 1 6 8 6</u>	Containers	Type		
	Description of Waste				Quantity	Units	No.	Type
	NON HAZARDOUS SOIL				<u>0 0 0 1 8</u>	<u>Y</u>	<u>0 1</u>	<u>T</u>

- D - Drum
- C - Carton
- B - Bag
- T - Truck
- P - Pounds
- Y - Yards
- O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date 021892

TRANSPORTER

Truck No. 189 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/18 Driver Name (Print) Bill Lee
 Address P. O. Box 218 Vehicle License No./State CP07729
Byron, California 94544 Vehicle Certification 401492

I hereby certify that the above named material was picked up at the generator site listed above.

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature [Signature] Shipment Date 021893 Driver Signature [Signature] Delivery Date 021893

DESTINATION

Site Name B.F.I. Vasco Road Landfill Phone No. 5 1 0 - 4 4 7 0 4 9 1
 Address 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 021893

PASS CODE _____

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #G113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No. -

FI Waste Code	Description of Waste	Quantity	Units	Containers No.	Type
<u>C A</u>	<u>NON HAZARDOUS SOIL</u>	<u>0 0 0 1 8</u>	<u>Y</u>	<u>0 /</u>	<u>T</u>

- Type
 D - Drum
 C - Carton
 B - Bag
 T - Truck
 P - Pounds
 Y - Yards
 O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date 021893

TRANSPORTER

Truck No. 389 Phone No. 510-634-6850
 Transporter Name Billard Trucking, Inc. 1003/18 Driver Name (Print) Robert Hooper
 Address P. O. Box 218 Vehicle License No./State CPD 7731
Byron, California 94544 01498
 Vehicle Certification

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered without incident to the destination listed below.
 Driver Signature [Signature] Shipment Date 021893 Driver Signature [Signature] Delivery Date 021893

DESTINATION

Name B.F.I. Vasco Road Landfill Phone No. 5 1 0 - 4 4 7 0 4 9 1
 Address 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.
 Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 021893

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No. -

FI Waste Code C A Description of Waste NON HAZARDOUS SOIL Quantity 0 0 0 1 8 Units Y Containers No. 0 Type T
 Description of Waste: NON HAZARDOUS SOIL
 Quantity: 0 0 0 1 8 Units: Y Containers No.: 0 Type: T

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date 02 18 93

TRANSPORTER

Truck No. 384 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/18 Driver Name (Print) Robert Hasman
 Address P. O. Box 218 Vehicle License No./State CP 7771
Byron, California 94544 Vehicle Certification 2101498

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered with out incident to the destination listed below.
 Driver Signature [Signature] Shipment Date 02 18 93 Driver Signature [Signature] Delivery Date 02 18 93

DESTINATION

Site Name B.F.I. Vasco Road Landfill Phone No. 5 1 0 - 4 4 7 0 4 9 1
 Address 4901 North Vasco Rd., Livermore, Ca. 4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate
 Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 02 18 93

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No.

BFI Waste Code C A 4 0 5 1 2 3 0 9 2 Containers 1 1 6 8 6
 Description of Waste NON HAZARDOUS SOIL Quantity 0 9 0 1 8 Units Y No. 0 1 Type T
 Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date 02/18/93

TRANSPORTER

Truck No. 389 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1903/18 Driver Name (Print) Robert Wisman
 Address P. O. Box 218 Vehicle License No./State CP7231
Byron, California 94544 Vehicle Certification CP1498

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature [Signature] Shipment Date 02/18/93 Driver Signature [Signature] Delivery Date 02/18/93

DESTINATION

Site Name B.F.I. Vasco Road Landfill Phone No. 5 1 0 - 4 4 7 0 4 9 1
 Address 4001 North Vasco Rd., Livermore, Ca. 4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 02/18/93

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name ARCO Products Generating Location ARCO Station #6113
 Address P. O. Box 5811 Address 785 E. Stanley Blvd.
San Mateo, Ca. 94402 Livermore, CA

Phone No. 4 1 5 - 5 7 1 2 4 3 4 Phone No.

BFI Waste Code	<u>C A</u>	<u>4 0 5</u>	<u>1 2 3 0 9 2</u>	<u>1 1 6 8 6</u>	Containers	Type
Description of Waste	<u>NON HAZARDOUS SOIL</u>			Quantity	Units	No. Type
				<u>0 0 0 1 8</u>	<u>Y</u>	<u>0 / T</u>

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date

TRANSPORTER

Truck No. 389 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/18 Driver Name (Print) Robert Hosmer
 Address P. O. Box 218 Vehicle License No./State CA 07731
Cyron, California 94544 Vehicle Certification 401498

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature [Signature] Shipment Date 021893 Driver Signature [Signature] Delivery Date 021893

DESTINATION

Site Name B.F.I. Vasco Road Landfill Phone No. 5 1 0 - 4 4 7 0 4 9 1
 Address 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Signature of Authorized Agent [Signature] Signature [Signature] Receipt Date 021893

PASS CODE _____

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products BYRON, CA 94514 ARCO Station #6113
 TRUCK 184 TRAILER 184 510-65 Generating Location TYPE OF LOADING
 Address: P.O. Box 5811 Address: 785 E. Stanley Blvd. LABEL
 SUB: San Mateo, Ca. 94402 Livermore, CA PAID
 HAULER

PRIME CARRIER TAG
 Phone No. 4 1 5 5 7 2 4 3 4
 SHIPPER
 BFI Waste Code C A 4 0 5 0 2 2 6 9 3 Containers Type
 Description of Waste: NON-HAZARDOUS SOIL Quantity: 0 0 0 1 8 Units: Y No.: 0 1 Type: T

NO	SCALE TAG NO	YARDS OR WEIGHT	TIME ARRIVE	TIME LEAVE	TOTAL	TIME	UNIT	NO.	TYPE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: For Arco Philip... Signature: [Signature] Shipment Date: 030493

TRANSPORTER

Truck No. 489-280 Phone No. 510-634-6850
 Transporter Name: Dillard Trucking, Inc. 1003/42 Driver Name (Print): Bud Lawrence
 Address: P.O. Box 218 Vehicle License No./State: 1VB6165
Byron, California 94514 Vehicle Certification: 401496

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature: Bud Lawrence Shipment Date: 030493 Driver Signature: Bud Lawrence Delivery Date: 030493

DESTINATION

Site Name: B.F.I. Vasco Road Landfill RECEIVED
 Address: 4001 North Vasco Rd., Livermore, Ca94550 Phone No. 510 447 049

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent: [Signature] Signature: [Signature] Receipt Date: 030493

PASS CODE

GENERATOR

Truck No. 01, Generator Name ARCO Products, Generating Location ARCO Station #6113, Address 785 E. Stanley Blvd., Livermore, CA

Table with columns: BFI Waste Code, Description of Waste, Quantity, Units, No., Type. Includes 'NON HAZARDOUS SOIL' and a table for 'LOADING' with columns for SCALE TAG NO., TARE OR WEIGHT, TIME ARRIVE, TIME LEAVE, TIME ARRIVE.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

TRANSPORTER

Truck No. 01, Transporter Name Dillard Trucking, Inc., Driver Name (Print) KEN DUARTE, Vehicle License No./State 3X11065 CA, Vehicle Certification 401489

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered with out incident to the destination listed below.

DESTINATION

Site Name B.F.I. Vasco Road Landfill, Address 4001 North Vasco Rd., Livermore, Ca. 94550, Phone No. 510-447-049

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent, Signature, Receipt Date

PASS CODE

GENERATOR

TRUCK No. 089 TRAILER No. ARCO Products (510) 634-6850
 Generator Name ARCO Products Generating Location ARCO Station #6113
 SUB NO Address P. O. Box 5811 Address 785 E. Stanley Blvd.
 PRIME CARRIER ARCO San Mateo, Ca. 94402 CONSIGNEE Livermore, CA

Phone No. 415 585 7124 Phone No. 925 434 1111

BFI Waste Code C A 4 0 5 0 2 2 6 9 3 1 1 6 8 6 Containers Type
 Description of Waste NON HAZARDOUS SOIL Quantity Units No. Type
0 0 0 1 8 Y 0 T

SCALE TAG NO.	WEIGHT	LOADING AREA	UNLOADING AREA	TIME ARRIVE	TIME DEPART
<u>46149</u>	<u>4664</u>	<u>0</u>	<u>0</u>	<u>08</u>	<u>08</u>

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name For Arco Products Signature [Signature] Shipment Date 030392

TRANSPORTER

Truck No. 089 Phone No. 510-634-6850
 Transporter Name Dillard Trucking, Inc. 1003/42 Driver Name (Print) WALTER MUGHLER
 Address P. O. Box 218 Vehicle License No./State CPD7730
Byron, California 94514 Vehicle Certification 401 499

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature Walter Muehle Shipment Date 030493 Driver Signature Walter Muehle Delivery Date 030493

DESTINATION

Site Name B.F.I. Vasco Road Landfill Phone No. 925 447 049
 Address 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 030493

PASS CODE

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products (510) 634-6850 Generating Location: ARCO Station #6113

Address: P. O. Box 5811 Address: 785 E. Stanley Blvd.

City: San Mateo, Ca. 94402 City: Livermore, CA

Phone No. 415-571-2434 Phone No. 925-431-1168

BFI Waste Code	Description of Waste	Quantity	Units	No.	Type
<u>CA 405022693</u>	<u>NON HAZARDOUS SOIL</u>	<u>00018</u>	<u>Y</u>	<u>01</u>	<u>T</u>

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: [Signature] Signature: [Signature] Shipment Date: 030393

TRANSPORTER

Truck No. 189 Phone No. 510-634-6850

Transporter Name: Dillard Trucking, Inc. 1003/42 Driver Name (Print): B. L. Lee

Address: P. O. Box 218 Vehicle License No./State: CA 7729

City: Byron, CA 94514 Vehicle Certification: 401492

I hereby certify that the above named material was picked up at the generator site listed above. I hereby certify that the above named material was delivered without incident to the destination listed below.

Carrier Signature: [Signature] Shipment Date: 030493 Driver Signature: [Signature] Delivery Date: 030493

DESTINATION

Site Name: B.F.I. Vasco Road Landfill Phone No. 510-700-0000

Address: 4001 North Vasco Rd., Livermore, Ca. 940

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent: [Signature] Signature: [Signature] Receipt Date: 030493

PASS CODE _____