

ENVIRONMENTAL CONSULTING
& MANAGEMENT

ROUX ASSOCIATES

FAX TRANSMITTAL

1200 ARNOLD DRIVE
SUITE 201
MARTINEZ, CALIFORNIA 94553

Date: 11-25-91

To: Mr. Barney Chaw

Company: Alameda County Health Agency

FAX No: 568-3706

From: Paul Supple

Project No: R119601
Roux Associates Inc.

Fax No: 570-370-2235

Phone No: 570-370-2275

Number of pages including attachments: 5

Comments: 11/20 2:15 Meeting. Original to be mailed.

Arco
Environmental Compliance Sect
200 Alameda de las Pulgas
San Mateo CA 94403

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES



1350 ARNOLD DRIVE
SUITE 201
MARTINEZ, CALIFORNIA 94553 510 370-2275 FAX # 510 370-2235

November 25, 1991

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

**SUBJECT: TANK AND LINE REPLACEMENT
ARCO FACILITY NO. 2185
9800 EAST 14TH STREET, OAKLAND, CALIFORNIA**

Dear Mr. Chan:

On behalf of ARCO Products Company (ARCO) Roux Associates (Roux) has prepared this letter to document the results of our meeting with you on November 19, 1991, regarding the underground storage tank (UST) and line replacement project at ARCO Facility No. 2185, located at 9800 East 14th Street in Oakland, California (Site). The following information summarizes findings from the work performed to date and presents ARCO's plans to assess and remediate the Site.

On October 30, 1991, three USTs were excavated and removed from the Site by ARCO's tank replacement contractor, Paradiso Construction Co. of Oakland, California (Paradiso). The locations of the removed tanks relative to Site structures are shown on Figure 1. Due to visible soil contamination encountered in the former tank cavity, the cavity was over-excavated prior to sampling. Paradiso over-excavated the former tank cavity to a depth of about 16 feet, one foot below the static water level, and widened the tank cavity in all directions from 3 to 6 feet.

On November 1, 1991, 14 soil samples were collected by Roux from the sidewalls of the former tank cavity. Figure 2 shows the extent of the excavation and the sampling locations. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and for benzene, toluene, ethylbenzene, and xylenes (BTEX) by Sequoia Analytical of Concord, California. A summary of the analytical results are included on Table 1.

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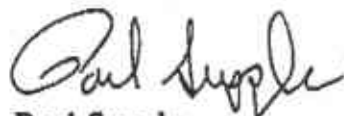
On November 5, 1991, former product and vent lines were excavated and removed by Paradiso. Due to visible soil contamination encountered below the product dispensers, some over-excavation was conducted prior to sampling. Fourteen soil samples were collected from below the removed lines and dispensers. These samples were also analyzed for TPH-G and BTEX by Sequoia Analytical. Soil sample locations are shown on Figure 2 and analytical results are included on Table 1.

The over-excavation of the former tank cavity and below the dispensers removed contaminated soil from these apparent source areas, but significant levels of gasoline contamination remain at the Site in the vicinity of the former product dispensers and the former tank cavity. Therefore, following completion of the tank replacement project, ARCO will investigate the extent of hydrocarbon contamination at the Site. The investigation, at a minimum, will consist of the installation of soil borings and monitoring wells, soil and ground water sampling and analysis, and a ground water pump test. Based on the data collected during the site investigation, an appropriate remedial system(s) will be designed and implemented at the Site. A Work Plan describing the initial phase of the site investigation will be submitted to you by December 18, 1991.

Construction activities at the Site are on hold pending your authorization to backfill the former tank cavity and line trenches. As we discussed, the lowest 5-feet of the former tank cavity will be backfilled with gravel to create a ground water sump. A recovery well will be installed into the sump during the subsequent site investigation. The remainder of the former tank cavity and the line trenches will be backfilled with clean, imported fill.

We would like to notify Paradiso to begin backfilling the former tank cavity and the line trenches as soon as possible. We appreciate your prompt review of this letter and request written authorization to proceed. If you require additional information, please contact Paul Supple at (510) 370-2275.

Respectfully submitted,
ROUX ASSOCIATES



Paul Supple
Senior Hydrogeologist

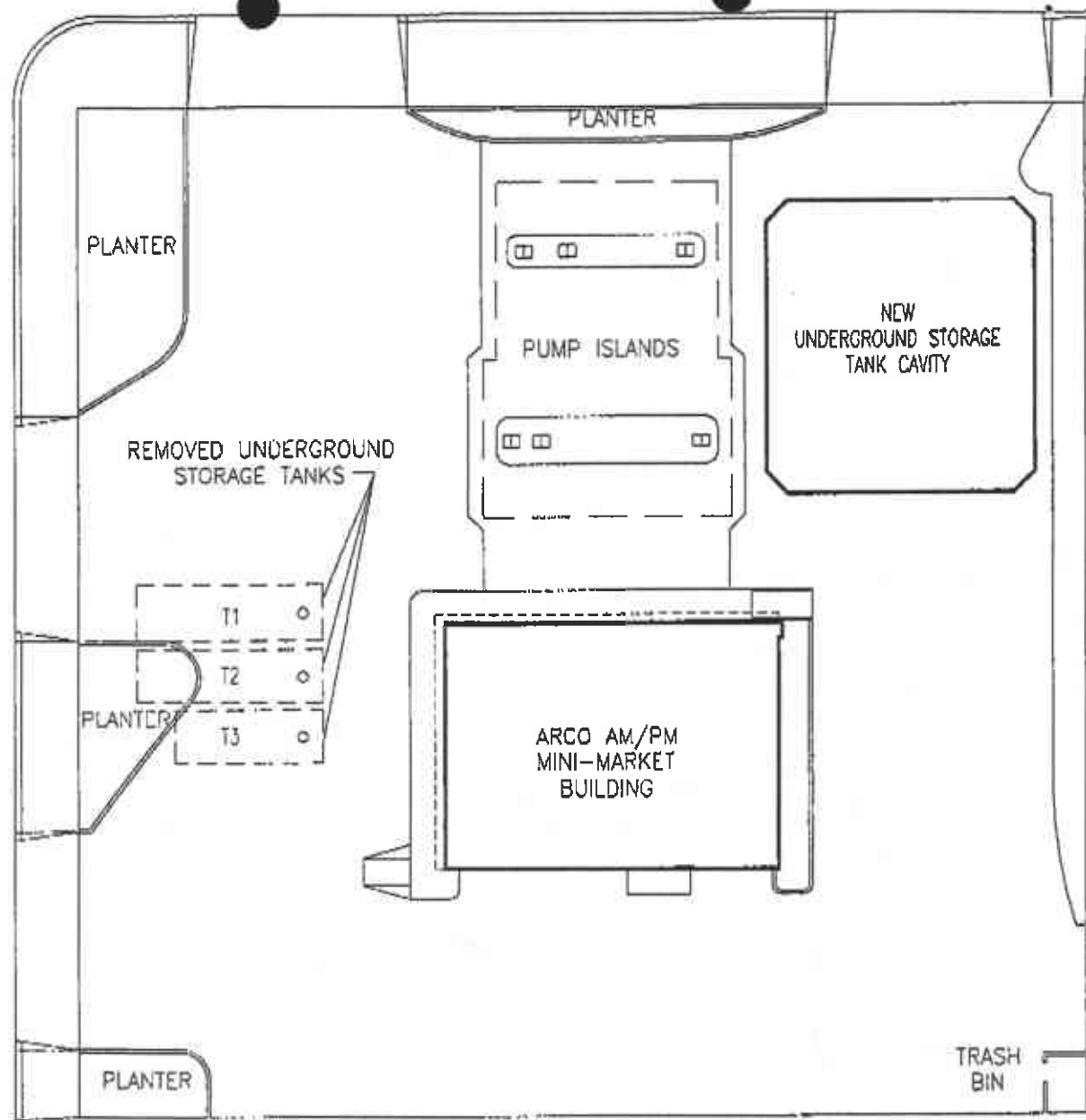


Dean A. Richesin, C.E.G.
Principal in Charge

cc: Mr. Charles Carmel, ARCO Products Company
Mr. Chris Winsor, ARCO Products Company
Mr. Richard Hiatt, Regional Water Quality Control Board



EAST 14th STREET



EXPLANATION

- T1 10,000 GALLON UNLEADED GASOLINE TANK
- T2 10,000 GALLON LEADED GASOLINE TANK
- T3 8,000 GALLON SUPER UNLEADED GASOLINE TANK
- FILL PORT

SOURCE:

MAP MODIFIED FROM BLUEPRINT PROVIDED BY BARGHAUSEN CONSULTING ENGINEERS (1986)

TITLE:				<p>SITE PLAN</p> <p>ARCO FACILITY NO. 2185</p>
PREPARED FOR:				
ARCO PRODUCTS COMPANY				
 ROUX ASSOCIATES ENVIRONMENTAL CONSULTING & MANAGEMENT	COMPILED BY:	P.S.	DATE:	11/91
	PREPARED BY:	R.P.	SCALE:	AS SHOWN
	PROJECT MANAGER:	P.S.	REVISION:	0
	PROJECT NO.	A119W01	FILE #:	AR2185XX
				FIGURE <p>1</p>

**TABLE 1: Summary of Soil Analyses: Former Tank Cavity and Product Line Trenches
ARCO Facility No. 2185, Oakland, California**

Sample Designation	Date	Depth (feet bgs)	TPH-G(1)	BTEX Distinction (1)			
				Benzene	Toluene	Ethylbenzene	Xylenes
Former Tank Cavity							
SW-1	11/1/91	14	810	3.4	1	13	50
SW-2	11/1/91	6	ND	ND	ND	ND	ND
SW-3	11/1/91	14	370	1.6	17	8.8	53
SW-4	11/1/91	14	220	0.73	1.2	2.8	15
SW-5	11/1/91	6	1.1	0.014	0.0069	0.012	0.034
SW-6	11/1/91	14	230	0.84	2.3	2.4	15
SW-7	11/1/91	14	1,100	5.9	28	15	90
SW-8	11/1/91	6	1.3	0.11	0.0054	ND	0.016
SW-9	11/1/91	14	500	3.7	0.92	7.1	32
SW-10	11/1/91	14	750	5.9	5.3	10	61
SW-11	11/1/91	6	ND	ND	ND	ND	0.012
SW-12	11/1/91	14	210	1.6	0.26	3.2	5
Product Line Trenches							
LINE-1	11/5/91	3	ND	ND	ND	ND	ND
LINE-2	11/5/91	3	ND	ND	ND	ND	ND
LINE-3	11/5/91	5	1,400	0.51	87	55	350
LINE-4	11/6/91	11	450	2.6	24	8.7	56
LINE-5	11/6/91	8	18	ND	0.029	0.042	0.38
LINE-6	11/6/91	8	ND	ND	ND	ND	ND
LINE-7	11/6/91	8	5.1	0.032	0.047	0.058	0.013
LINE-8	11/6/91	8	240	0.17	2.8	2.8	15
LINE-9	11/6/91	9.5	5,400	22	330	120	640
LINE-10	11/6/91	8	2,600	5	130	53	29
LINE-11	11/6/91	3	1.4	ND	0.014	0.012	0.1
LINE-12	11/6/91	3	ND	ND	ND	ND	ND
LINE-13	11/6/91	3	13	ND	0.026	0.05	0.7
LINE-14	11/6/91	3	ND	ND	ND	ND	ND

FOOTNOTES

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

TPH-G = Total Petroleum Hydrocarbons As Gasoline (Modified USEPA 8015)

BTEX Distinction (USEPA 8020)

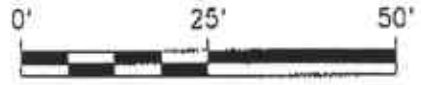
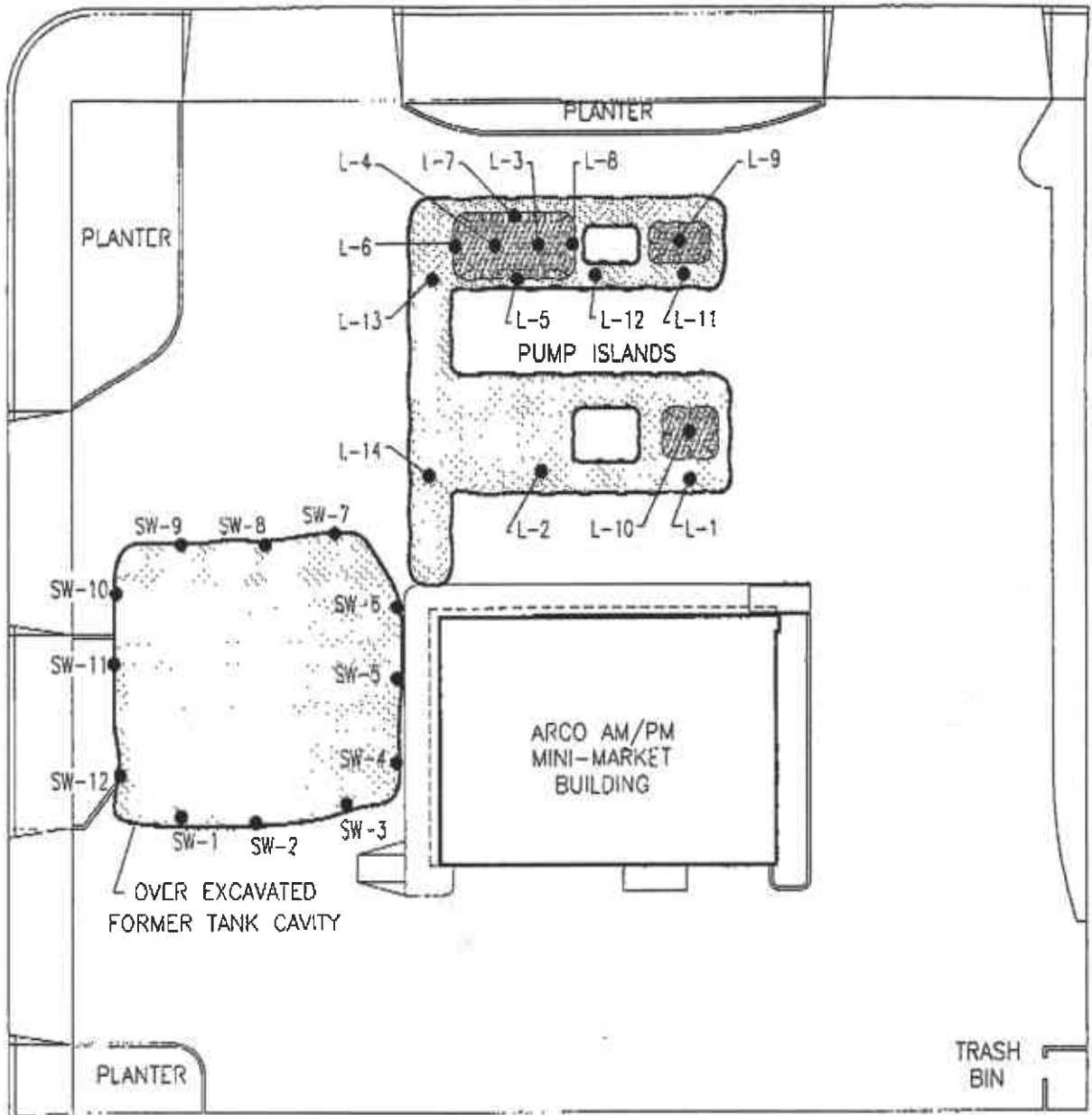
NA = Not Analyzed

ND = Not Detected (for detection limits see laboratory analytical results, Appendix B)



bgs = Below ground surface



EAST 4th STREET



EXPLANATION

-  EXCAVATED AREAS
-  EXTENDED EXCAVATED AREAS
- SW-11 TANK CAVITY SOIL SAMPLE LOCATION AND DESIGNATION.
- L-4 PRODUCT LINE TRENCH SOIL SAMPLE LOCATION AND DESIGNATION.

SOURCE:
 MAP MODIFIED FROM BLUEPRINT PROVIDED BY
 BARGHAUSEN CONSULTING ENGINEERS (1986)

TITLE:			
LOCATION OF EXCAVATED TANK CAVITY AND PRODUCT LINE TRENCH SOIL SAMPLES ARCO FACILITY NO. 2185			
PREPARED FOR:		ARCO PRODUCTS COMPANY	
ROUX ROUX ASSOCIATES ENVIRONMENTAL CONSULTING & MANAGEMENT	COMPILED BY: G.M.	DATE: 11/91	FIGURE 2
	PREPARED BY: R.P.	SCALE: AS SHOWN	
	PROJECT MANAGER: P.S.	REVISION: 0	
	PROJECT NO. A119W01	FILE #: AR2185XX	