Livermore-Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566
925/454-2361 phone 925/454-2367 fax

FAX COVER SHEET

DATE: 3/3/03

TO: Mike Farrell COMPANY: _____

FAX #: 925 373 8669 PHONE: _____

COMMENTS:

FROM: Danielle

# of Pages: 8+ Cover

OCT 20 1989

500 12th Street
Suite 100
Oakland, CA 94607-4014
(415) 893-3600

Woodward-Clyde Consultants

October 10, 1989
8810220A

City of Livermore
Redevelopment Agency
1052 South Livermore Avenue
Livermore, California 94550

Attention: Ms. Karen Majors, Redevelopment Coordinator

Subject: Observations and Laboratory Analyses Results
Underground Tank Removal
Fabtronics Site, 1934 Railroad Avenue,
Livermore, California

Ladies and Gentlemen:

We are pleased to present this report which presents the results of observations of the underground fuel storage tank removal at 1934 Railroad Avenue, at the former Fabtronics site (Figure 1). This work was performed in accordance with our scope of work dated June 6, 1989. The tank was removed by R.S. Eagan Company under a separate contract with the City of Livermore.

SCOPE OF WORK

A Woodward-Clyde engineer observed the removal of the 500 gallon underground gasoline tank at 1934 Railroad Avenue. Photographs were taken (Figure 2) of the soil and piping exposed in the excavation. A photo ionization detector was used to detect gasoline vapors from soil in the field. Soil samples were collected from below the bottom of the tank and the pipeline to the pump. Laboratory tests were performed on the soil samples to evaluate the presence of gasoline. The results of field observations and laboratory testing are contained in the following sections of this report.

FIELD OBSERVATIONS

On September 14, 1989, Mr. Michael James, a Woodward-Clyde engineer observed the removal of the underground tank. The tank was about 4 feet in diameter and 6 feet long, and was located a few feet east of the gasoline pump. Since the tank was located close to the pump the associated piping was contained within the tank excavation.

Visual observations revealed the tank was in good condition with no observable areas of corrosion or damage with holes which could be the source of leaks. The associated piping also appeared to be in good condition. The tank excavation measured about 6 feet by 8 feet in plan

dimensions, and were about 8 feet deep (Figure 2). No stains, or discolorations of the soil were observed in the excavation or in the spoil pile. No free groundwater was encountered in the excavation. Tank backfill consisted of native soil, consisting of moist sandy gravel with traces of silt and clay. No gasoline odors were detected from within the excavation or from the spoil pile.

Soil samples were taken from depths of 2 feet and 4 feet beneath the bottom of the former tank. Samples were obtained with the backhoe bucket, and they were placed in 2 inch diameter sample tubes with plastic end caps. Each tube was labeled, placed in a plastic zip-lock bag, and placed on ice for transport to the laboratory. Mr. Griffith, a Fire Inspector for the City of Livermore, also observed the sampling and placed evidence tape on the samples. The samples of soil were transported, under chain-of-custody procedures, to Sequoia Laboratories, Redwood City, California.

Head space tests were performed in the field on soil from the spoil pile. Soil was placed in a plastic bag and the bag was sealed and allowed to sit in the sun for about 5 minutes. The photoionization probe was then inserted into the bag to detect organic vapors in the "headspace". No organic vapors were detected using this procedure. The excavation was then backfilled by the contractor.

LABORATORY TESTING

Soil samples were analysed for total petroleum hydrocarbons as gasoline, and for benzene, toluene, ethylbenzene, and xylene using EPA Methods 8015/8020 at Sequoia Analytical Laboratories. No TPH or BTEX were detected in sample T-1 from 2 feet below the former tank. In sample T-2, from 4 feet below the former tank 8.8 parts per million TPH, 0.10 parts per million toluene, and 0.18 parts per million xylenes were detected. No benzene or ethylbenzene were detected in sample T-2.

LIMITATIONS

Woodward-Clyde field activities were performed in accordance with the generally accepted standard of practice which existed at the time. The scope of work was limited to the visual observation of the tank removal and visual examination and sampling of soil.

CONCLUSIONS

Based upon our observations of the tank excavation and analytical results of samples T-1 and T-2 from the excavation, it is our opinion that there were no significant leaks from this tank. The laboratory test results detected very low concentrations of total petroleum hydrocarbons, toluene and xylenes. These concentrations are not considered evidence of significant leaks.

Woodward-Clyde Consultants

We recommend that you forward this information to the Alameda County Department of Environmental Health for their review. It is our opinion that no further actions are required for this tank site.

Please call if you have any questions.

Sincerely,

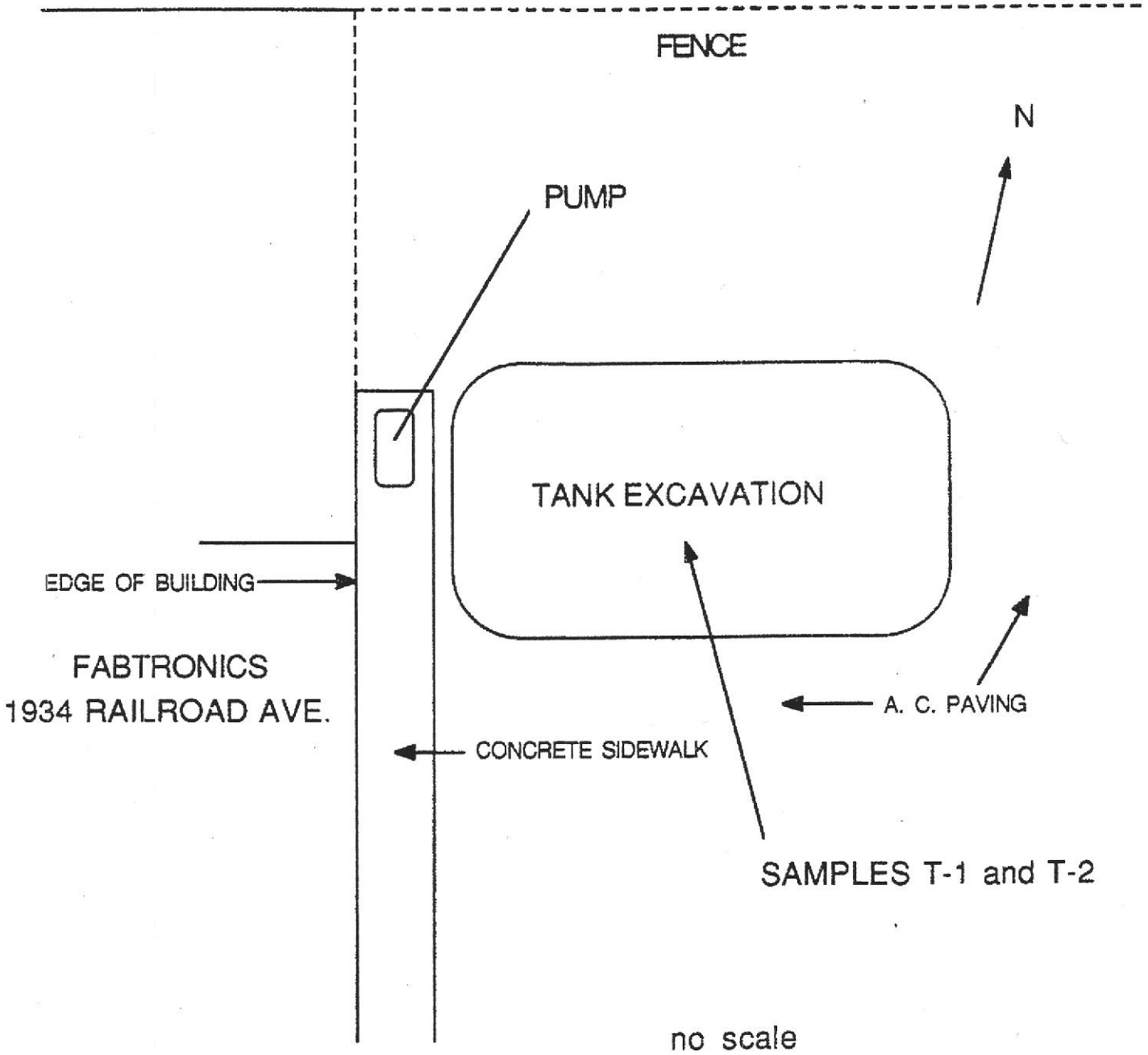
WOODWARD-CLYDE CONSULTANTS

Albert P. Ridley, C.E.G. #926
Senior Consultant

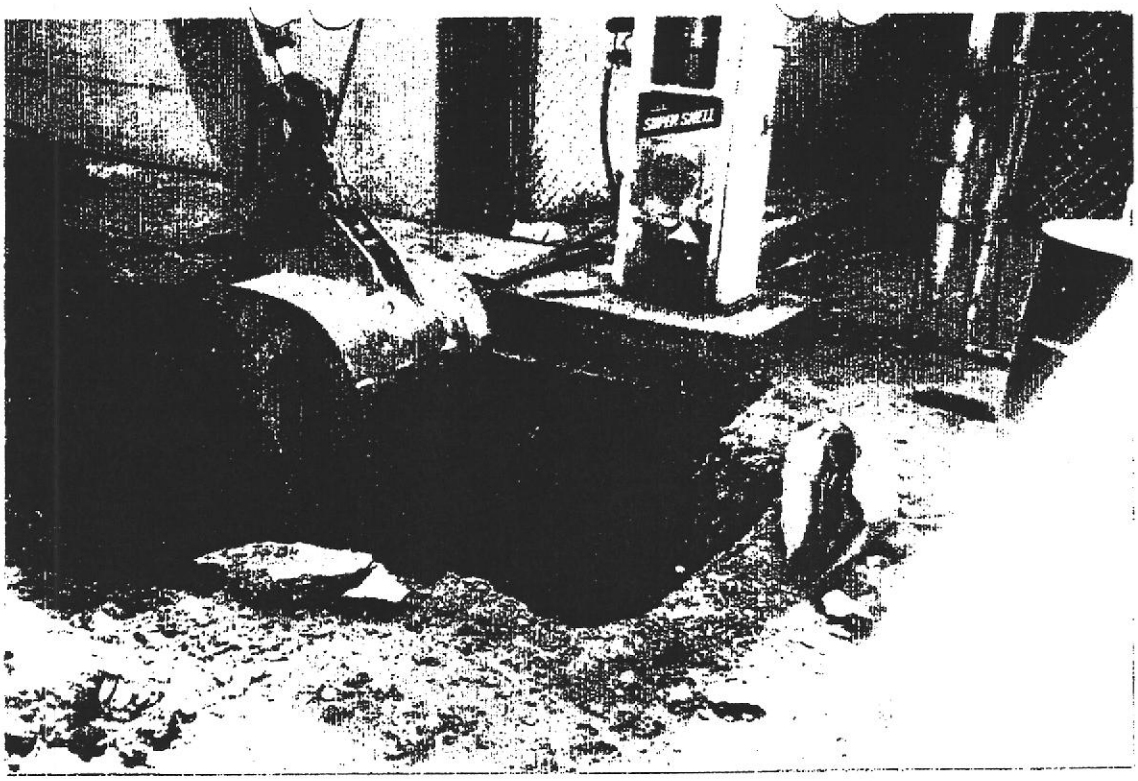
APR:tt
8810220A-b/COT

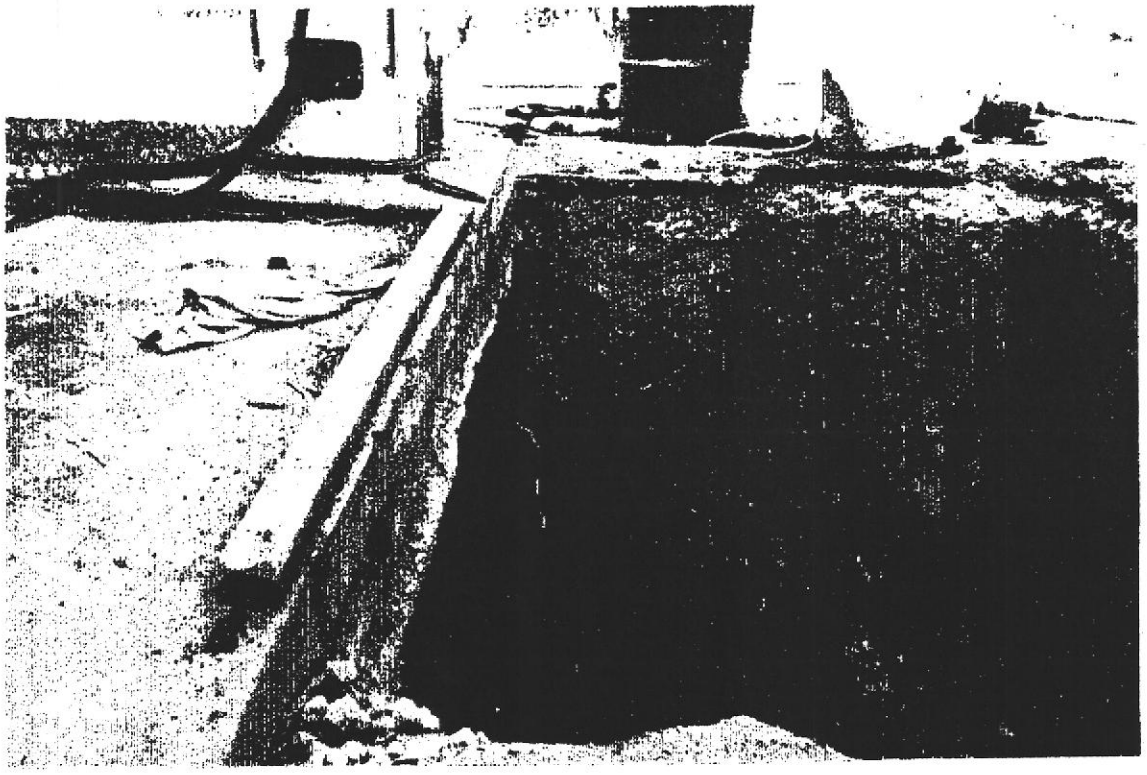
Attachments:
Figure 1 Approximate Tank Location
Figure 2 Photographs of Tank Removal

Laboratory Test Results



Project No. 8810220A	1934 RAILROAD AVENUE	APPROXIMATE TANK LOCATION	FIGURE 1
Woodward-Clyde Consultants			





Project No. 8810220A	1934 Railroad Avenue	PHOTOGRAPHS OF TANK REMOVAL	FIGURE 2
Woodward-Clyde Consultants			

SEQUOIA ANALYTICAL
680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Woodward-Clyde Consultants
500 12th St., Suite 100
Oakland, CA 94607-4041
Attention: Al Ridley

Project: #881022A

Enclosed are the results from 2 soil samples received at Sequoia Analytical on September 15,1989. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
9091867	Soil, T-1	9/14/89	EPA 5030/8015/8020
9091868	Soil, T-2	9/14/89	EPA 5030/8015/8020

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

MM Tague

Vickie Tague
Project Manager

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680 Chesapeake Drive • Redwood City, CA 94063
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Woodward-Clyde Consultants	Client Project ID:	#881022A	Sampled: Sep 14, 19
500 12th St., Suite 100	Matrix Descript:	Soil	Received: Sep 15, 19
Oakland, CA 94607-4041	Analysis Method:	EPA 5030/8015/8020	Analyzed: Sep 25, 19
Attention: Al Ridley	First Sample #:	909-1867	Reported: Sep 27, 19

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
909-1867	T-1	N.D.	N.D.	N.D.	N.D.	N.D.
909-1868	T-2	8.8	N.D.	0.10	N.D.	0.18
Detection Limits:		**1.0**	**0.05**	**0.1**	**0.1**	**0.1**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Vickie Tague
Project Manager

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Woodward-Clyde Consultants
500 12th St., Suite 100
Oakland, CA 94607-4041
Attention: Al Ridley

Client Project ID: #881022A

QC Sample Group: 9091867-8

Reported: Sep 27, 1989

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8015/ 8020	EPA 8015/ 8020	EPA 8015/ 8020	EPA 8015/ 8020
Analyst:	Spak/Dinsay	Spak/Dinsay	Spak/Dinsay	Spak/Dinsay
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Sep 25, 1989	Sep 25, 1989	Sep 25, 1989	Sep 25, 1989
QC Sample #:	909-2826	909-2826	909-2826	909-2826
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	1.0	1.0	1.0	3.0
Conc. Matrix Spike:	0.50	0.69	0.81	2.4
Matrix Spike % Recovery:	50	69	81	80
Conc. Matrix Spike Dup.:	0.56	0.80	0.94	2.8
Matrix Spike Duplicate % Recovery:	56	80	94	93
Relative % Difference:	11	15	15	15

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Vickie Tague
Project Manager

$$\% \text{ Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

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