

SCS ENGINEERS

December 16, 1988
File No. 388038.00

Mr. Verl Rothlisberger
Verl's Construction
20914 Redwood Road
Castro Valley, CA 94565

Subject: Underground Tank Removal - Soil Sampling
Verl's Construction - Rudy's Donut Shoppe
Castro Valley, California

Dear Mr. Rothlisberger:

This letter report contains the results of services performed at Rudy's Donut Shoppe in Castro Valley, California which consisted of the following:

1. Sample collection from under two (2) 10,000 gallon underground storage tanks after removal.
2. Sample submittal and analysis by a state certified analytical laboratory.

I. Summary of Work Performed

Two 10,000 gallon gasoline storage tanks were present at the above mentioned site. Verl's Construction, under direct contact with Rudy's Donut Shoppe, removed the tanks on November 28, 1988. (See Plate 1). The tanks were transported from site by H&H Shipyards for disposal. Both gas tanks appeared to have no visible holes. However, the excavation had a very strong product odor. The contamination appeared to originate from tank piping. All excavated material was covered with 6 mil poly-cover plastic pending analysis and disposal.

Six samples were collected from the tank pit excavation at locations noted on Plate 1.

All soil samples, when collected, were retained in brass sleeves, examined, sealed with teflon tape, capped with plastic end caps, tightly wrapped with tape, labeled, and kept in cold storage for transport to the chemical laboratory.

Mr. Verl Rothlisberger
December 16, 1988
Page Two

II. Chemical Analysis

Anametrix Laboratory Services of San Jose, California tested 6 (six) soil samples for:

- o Total hydrocarbons as gasoline (EPA 8015 with BTEX)

Samples removed from native soil below fill material in the tank pit revealed contamination below action limits. However, the sample retrieved from the northern site wall contained contamination of an excessive level (7,300 parts per million, ppm).

Table 1 contains a summary of laboratory results.

III. Conclusions and Recommendations

Sampling results indicate that contamination is not present below the tank pit. However, the north wall needs to be further excavated until contamination levels are below 1,000 ppm (action levels for insitu soil). Additionally, the excavated soil piles need to be sampled to determine their contamination levels and therefore the proper disposal methods and options.

If you have any questions contact either of the undersigned at (415) 829-0661.

Sincerely,



Matthew J. Hopwood
Staff Geologist
SCS ENGINEERS



Kent A. Madenwald
Project Manager
SCS ENGINEERS

MJH/KAM/egh

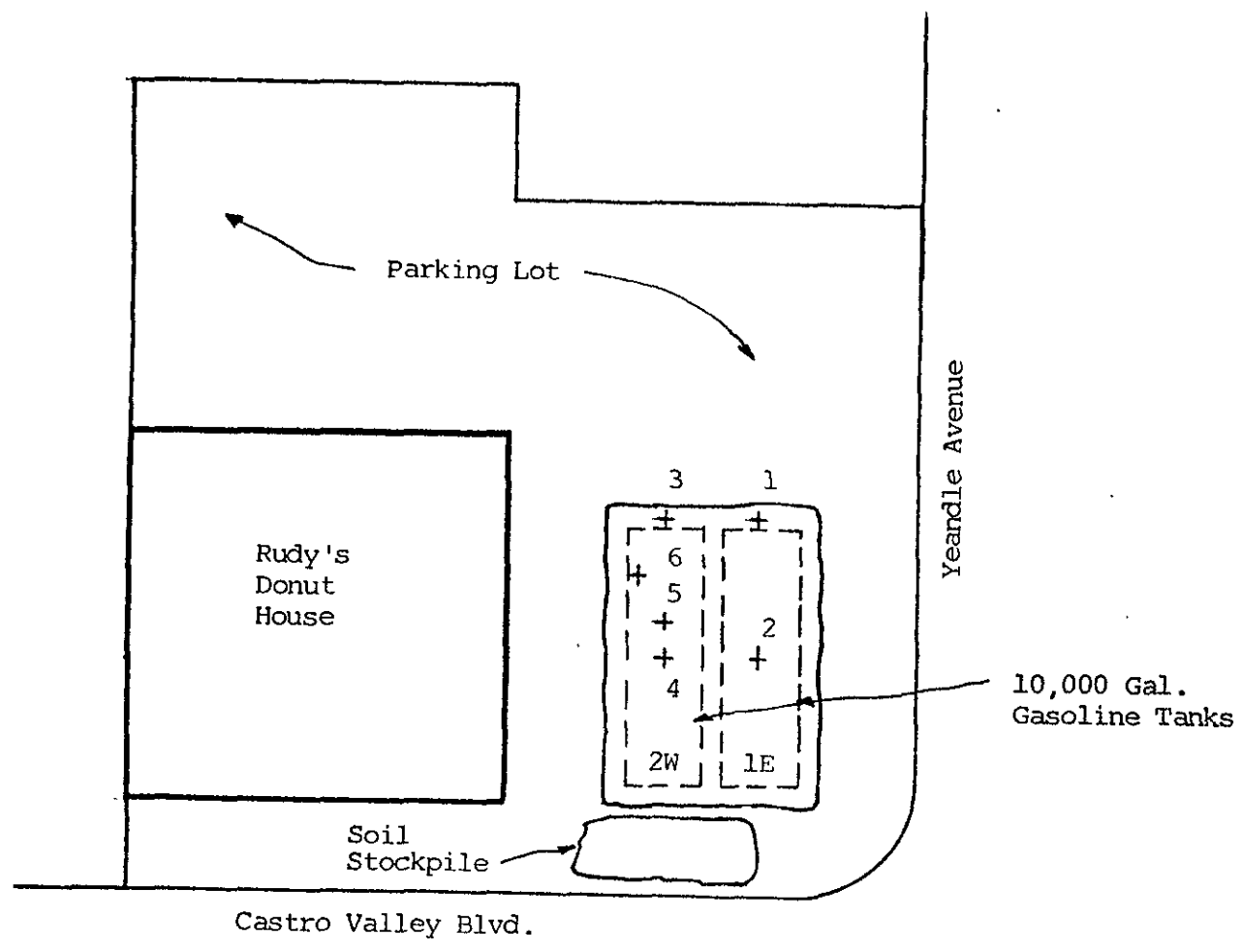
TABLE 1

Summary of Results - Soil Sampling (ppm)

<u>Sample ID</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethylbenzene</u>	<u>Xylene</u>	<u>Gasoline</u>
1	ND	ND	ND	0.2	1
2	ND	0.1	ND	0.4	13
3	1.1	79	240	960	7,300
4	ND	ND	ND	ND	ND
5	ND	ND	ND	0.2	2.3
6	0.1	1.2	0.6	5.9	32

ppm = parts per million

ND = none detected



+ - Sample Location

Not to Scale



SCS ENGINEERS
 STEARNS CONRAD AND SCHMIDT
 CONSULTING ENGINEERS INC.
 8761-D SIERRA COURT
 DUBLIN CA 94568

RUDY'S DONUT SHOPPE
 CASTRO VALLEY, CALIFORNIA

SITE PLAN

Project No. 388038.00

Date 12-14-88

Page
1

APPENDIX I
LABORATORY REPORT

CHAIN-OF-CUSTODY RECORD

000225

Page 1 of 1

SAMPLER: (Signature) _____

Michael J. Griffin
Phone (415) 829-7587

Date Shipped _____

Airbill No. _____

Carrier _____

Cooler No. _____

SHIP TO: Anametrix Laboratories
San Jose, CA
(408) 432-8192

SEND RESULTS TO:

Client Name SCS Engineers
Company MICHAEL J. GRIFFIN
Address 6761 - 0 SIERRA CT
DUBLIN, CA. 94568
Phone (415) 829-0661

ATTENTION: _____

PROJECT NAME VERL CONSTR - Rudy's Donut Shop PROJECT NO. 388038.00 P.O. NO. _____

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
<u>Michael J. Griffin</u>	<u>[Signature]</u>	<u>29 Nov 88 0830</u>	<u>11-29-88 8:30</u>
<u>[Signature]</u>	<u>[Signature]</u>	<u>11-29-88</u>	<u>9:20</u>
<u>[Signature]</u>	<u>Narine S.</u>	<u>11-29-88</u>	<u>9:20</u>
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Time

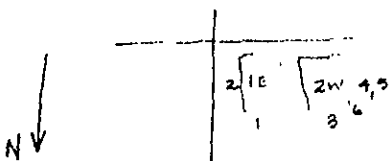
ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
#1	1E - Backfill	28 Nov 88	8015 ↓	
#2	1E - Center	28 Nov 88		
#3	2W - Backfill ←	28 Nov 88		
#4	2W - Center	28 Nov 88		
#5	2W - Center - 2'	28 Nov 88		
#6	2W - Wall - 3'	28 Nov 88		

Special Instructions/Comments:

#5 - 2W - Center - 2 feet below tank bottom
#6 - 2W - Northwest wall - 3 feet below asphalt surface

Anametrix 8811189





1961 Concourse Drive, Suite E
San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

Michael J. Griffin
SCS Engineering
6761 Sierra Ct., Ste. D
Dublin, CA 94568

December 13, 1988
Work Order Number 8811189
Date Received 11/29/88
Project No. 388038.00

Dear Mr. Griffin:

Six soil samples were received for analysis of BTEX plus total volatile hydrocarbons as gasoline by gas chromatography, using the following method(s):

ANAMETRIX I.D.	SAMPLE I.D.	METHOD(S)
8811189-01	388038.00 #1	TVH/BTEX
-02	" #2	"
-03	" #3	"
-04	" #4	"
-05	" #5	"
-06	" #6	"

RESULTS

See enclosed data sheets, Pages 2-7.

NOTE: Amounts reported are net values, i.e. corrected for method blank contamination.

If there is any more that we can do, please give us a call. Thank you for using ANAMETRIX, INC.

Sincerely,

Burt Sutherland for

Burt Sutherland
Laboratory Director

BWS/dm

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 388038.00 #1	Anametrix I.D. : 8811189-01
Matrix : SOIL	Analyst : <i>a</i>
Date sampled : 11-28-88	Supervisor : <i>SJS</i>
Date anl. TVH: 12-05-88	Date released : 12-13-88
Date ext. TEH: NA	Date ext. TOG : NA
Date anl. TEH: NA	Date anl. TOG : NA

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	50	BRL
108-88-3	Toluene	100	BRL
100-41-4	Ethylbenzene	100	BRL
1330-20-7	Total Xylenes	100	200
	TVH as Gasoline	1000	1000

- BRL - Below reporting limit.
- TVH/TPHG - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- TEH/TPHD - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.
- TOG - Total Oil & Grease is determined by Standard Method 503E.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 388038.00 #2
 Matrix : SOIL
 Date sampled : 11-28-88
 Date anl. TVH: 12-05-88
 Date ext. TEH: NA
 Date anl. TEH: NA

Anametrix I.D. : 8811189-02
 Analyst : *h*
 Supervisor : *MS*
 Date released : 12-13-88
 Date ext. TOG : NA
 Date anl. TOG : NA

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	50	BRL
108-88-3	Toluene	100	100
100-41-4	Ethylbenzene	100	BRL
1330-20-7	Total Xylenes	100	400
	TVH as Gasoline	1000	13000

- BRL - Below reporting limit.
- TVH/TPHG - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- TEH/TPHD - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.
- TOG - Total Oil & Grease is determined by Standard Method 503E.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 388038.00 #3
 Matrix : SOIL
 Date sampled : 11-28-88
 Date anl. TVH: 12-08-88
 Date ext. TEH: NA
 Date anl. TEH: NA

Anamatrix I.D. : 8811189-03
 Analyst : *W*
 Supervisor : *SD*
 Date released : 12-13-88
 Date ext. TOG : NA
 Date anl. TOG : NA

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	50	1100
108-88-3	Toluene	100	79000
100-41-4	Ethylbenzene	100	240000
1330-20-7	Total Xylenes	100	900000
	TVH as Gasoline	1000	7300000

- BRL - Below reporting limit.
- TVH/TPHG - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- TEH/TPHD - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.
- TOG - Total Oil & Grease is determined by Standard Method 503E.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 388038.00 #4
 Matrix : SOIL
 Date sampled : 11-28-88
 Date anl. TVH: 12-07-88
 Date ext. TEH: NA
 Date anl. TEH: NA

Anametrix I.D. : 8811189-04
 Analyst : *aw*
 Supervisor : *JS*
 Date released : 12-13-88
 Date ext. TOG : NA
 Date anl. TOG : NA

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	50	BRL
108-88-3	Toluene	100	BRL
100-41-4	Ethylbenzene	100	BRL
1330-20-7	Total Xylenes	100	BRL
	TVH as Gasoline	1000	BRL

- BRL - Below reporting limit.
- TVH/TPHG - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- TEH/TPHD - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.
- TOG - Total Oil & Grease is determined by Standard Method 503E.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 388038.00 #5
 Matrix : SOIL
 Date sampled : 11-28-88
 Date anl. TVH: 12-08-88
 Date ext. TEH: NA
 Date anl. TEH: NA

Anamatrix I.D. : 8811189-05
 Analyst : *aw*
 Supervisor : *FJ*
 Date released : 12-13-88
 Date ext. TOG : NA
 Date anl. TOG : NA

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	50	BRL
108-88-3	Toluene	100	BRL
100-41-4	Ethylbenzene	100	BRL
1330-20-7	Total Xylenes	100	200
	TVH as Gasoline	1000	2300

- BRL - Below reporting limit.
- TVH/TPHG - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- TEH/TPHD - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.
- TOG - Total Oil & Grease is determined by Standard Method 503E.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Sample I.D. : 388038.00 #6
 Matrix : SOIL
 Date sampled : 11-28-88
 Date anl. TVH: 12-08-88
 Date ext. TEH: NA
 Date anl. TEH: NA

Anamatrix I.D. : 8811189-06
 Analyst : a
 Supervisor : dir
 Date released : 12-13-88
 Date ext. TOG : NA
 Date anl. TOG : NA

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	100	100
108-88-3	Toluene	200	1200
100-41-4	Ethylbenzene	200	600
1330-20-7	Total Xylenes	200	5900
	TVH as Gasoline	2000	32000

- BRL - Below reporting limit.
- TVH/TPHG - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- TEH/TPHD - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.
- TOG - Total Oil & Grease is determined by Standard Method 503E.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.