

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 1, 1998
StID # 3934

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Manuel Rodrigues
1662 Clearview Dr.
San Leandro CA 94577

RE: Mr. Manuel Rodrigues Property, 1009 89th Ave., Oakland 94621

Dear Mr. Rodrigues:

This letter confirms the completion of site investigation and remedial action for the two (2) 1000 gallon gasoline and the one (1) 1000 gallon diesel fuel underground tank removed from the above described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground tank is greatly appreciated.

Based upon the available information and with provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank releases is required.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721 (e) of the California Code of Regulations.

Please contact Barney Chan at (510) 567-6765 if you have any questions regarding this matter.

Sincerely,

Mee Ling Ting
Director, Environmental Health

c: B. Chan, Hazardous Materials Division-files
Chuck Headlee, RWQCB
Mr. Dave Deaner, SWRCB Cleanup Fund
Mr. Leroy Griffin, City of Oakland OES, 505 14th St., Suite
702, Oakland CA 94612

RACC1009

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

September 1, 1998
StID# 3934

Mr. Manuel Rodrigues
1662 Clearview Dr.
San Leandro, CA 94577

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

RE: Fuel Leak Site Case Closure, 1009 89th Ave., Oakland
CA 94621

Dear Mr. Rodrigues:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with the Health and Safety Code, Chapter 6.75 (Article 4, Section 25299.37 h). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Health Services, Local Oversight Program (LOP) is required to use this case closure letter. We are also enclosing the case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site.

Site Investigation and Cleanup Summary:

Please be advised that the following conditions exist at the site:

* 800 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg) and 2.7, 3.3, 11 and 63 ppm BTEX, respectively, remain in the soil at the site.

* 8 parts per billion (ppb) benzene remain in groundwater at the site.

In addition, the existing irrigation well on-site should not be used for drinking water. This site should be included in the City's permit tracking system. Please contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

enclosures: Case Closure Letter, Case Closure Summary

c: Mr. L. Griffin, City of Oakland OES, 505 14th St., Suite
702, Oakland CA 94612

B. Chan, files (letter only)

Tr1t1009-89

01-1256

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: 3/26/97

Agency name: Alameda County-HazMat **Address:** 1131 Harbor Bay Parkway
Rm 250, Alameda CA 94502
City/State/Zip: Alameda **Phone:** (510) 567-6700
Responsible staff person: Barney Chan **Title:** Hazardous Materials Spec.

II. CASE INFORMATION

Site facility name: Mr. Manuel Rodrigues Property
Site facility address: 1009 89th Ave., Oakland CA 94621
RB LUSTIS Case No: N/A **Local Case No./LOP Case No.:** 3934
ULR filing date: 6/12/86 via leak book **SWEEPS No:** N/A
5/27/92

Responsible Parties: **Addresses:** **Phone Numbers:**
1. Mr. Manuel Rodrigues 1662 Clearview Dr. (510) 483-8022
San Leandro CA 94577

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	1000	gasoline	Removed	4/25/86
2	1000	gasoline	Removed	5/14/92
3	1000	diesel	Removed	5/14/92

III RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: unknown
Site characterization complete? Yes
Date approved by oversight agency:
Monitoring Wells installed? YES **Number:** 2 monitoring and 1 irrigation
Proper screened interval? Yes, screen interval typically from 5' to 25' bgs or to the depth of the well. Screen interval in irrigation well unknown, approximate depth of this well is 20 feet.

Leaking Underground Fuel Storage Program

Highest GW depth: 5.59' bgs Lowest depth: 9.34' bgs

Flow direction: west-southwest

Most sensitive current use: residential

Are drinking water wells affected? No, irrigational well water not used for drinking, municipal water provided Aquifer name: NA

Is surface water affected? No Nearest affected SW name: NA

Off-site beneficial use impacts (addresses/locations): NA

Report(s) on file? Yes Where is report(s)? Alameda County
 1131 Harbor Bay Parkway,
 Room 250, Alameda CA 94502-6577

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount (include units)</u>	<u>Action (Treatment of Disposal w/destination)</u>	<u>Date</u>
Tanks & Piping	1-1000 gallon 2-1000 gallon	Unknown Disposed at Erickson	4/26/86 5/4/92
Soil	736 cy 88 cy	Aerated, chemically treated and reused onsite Disposed at Redwood Landfill	10/22/92- 7/19/96 1/25/93

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

<u>Contaminant</u>	<u>1</u>	<u>Soil (ppm)</u>		<u>Water (ppb)</u>	
		<u>2</u> <u>Before</u>	<u>3</u> <u>After</u>	<u>4</u> <u>Before</u>	<u>After</u>
TPH (Gas)	1100	85	800	3,400	ND
TPH (Diesel)		ND			
Benzene		ND	2.7	67	8
Toluene		ND	3.3	41	ND
Ethylbenzene		ND	11	84	ND
Xylenes		ND	63	490	ND
MTBE					ND
Other- Organic Lead			ND	ND	

Comments (Depth of Remediation, etc.):

- 1 Results of soil samples from tank pull on 4/25/86
- 2 Results of soil samples from 5/4/92 tank removals
- 3 Soil samples after overexcavation, sample VS-11, (8/1/95)
- 4 Grab groundwater sample, W-1, 10/28/92, from gasoline tank pit excavated on 5/4/92

Leaking Underground Fuel Storage Tank Program

Site Summary

Our office received a copy of analytical results of soil samples taken after the removal of one 1000 gallon gasoline tank on 4/28/86. Up to 1100 ppm gasoline was detected. No other analytes were tested on the samples. During a site visit on 12/12/91, two additional USTs were observed. They were identified as 1-1000 gallon diesel and 1-1000 gallon gasoline tank. They were located approximately 50 feet south of the original gasoline tank and 35 feet apart. On 5/4/92 these two tanks were removed. Soil samples were taken from the ends of these tanks at a depth of 7.5-8.0' bgs. No contaminants were detected in the samples from the ends of the diesel tank, while a maximum of 85 ppm TPHg was detected in SG-S, the sample from the south end of the gasoline tank.

On June 24 and July 2, 1992, the contractor conducted overexcavation activities in the area of the 1000 gallon gasoline tank based upon visible hydrocarbon staining and contamination detected by head space field measurements. Sheen on water was encountered during the excavation. A grab groundwater sample, W-1, was collected on 10/28/92. Further excavation and a groundwater investigation was warranted.

During March 1993, the contractor completed overexcavation of the 1000 gallon gasoline tank removed on 5/4/92, took confirmatory soil samples from the base of the excavation, treated and aerated excavated soils, took confirmatory spoils samples and refilled the excavation with remediated soils. See Figure 9 for a map showing the extent of excavation and Table 1 for a summary of soil sample results.

Using groundwater flow direction determined for the site at 966 89th Ave., located approximately 250' southwest of the subject site, two monitoring wells were installed on 1/5/94 in the assumed downgradient direction relative to the two 1000 gallon gasoline tanks. See Figure 10 for their locations. Quarterly groundwater monitoring of these two wells was initiated.

On 9/7/94 the onsite irrigation well, (MW-3), was surveyed in order to obtain depth to water measurements to determine site specific gradient.

TPHg and BTEX continued to be detected in elevated levels in MW-1, the well in the assumed downgradient direction to the gasoline tank removed on 4/28/86. Our office requested additional subsurface investigation in this area.

Additional soil excavation was proposed and approved for the area downgradient of the initial gasoline tank. Excavation, sampling, spoils treatment and reuse was proposed similarly to what was done around the other gasoline tank.

Leaking Underground Fuel Storage Tank Program

From June 1995 to June 1996, concurrent soil excavation, verification soil sampling, soil treatment, confirmatory sampling and backfilling occurred in the area of the former gasoline tank. The length of this work was extended due to the unexpected lateral extent of contamination and interruption due to the rainy season.

See Figures 13 and 14 for the final extent of overexcavation. With exception of an area near an onsite telephone pole, excavation activities successfully removed the majority of soil contamination.

Groundwater elevation from the irrigation well (MW-3) was deemed appropriate for use for gradient determination since this well was estimated to be 20' in depth (versus 25' in the monitoring wells) and groundwater elevation was comparable to the monitoring wells. Using the three wells a west-southwesterly gradient was confirmed. The irrigation well was downgradient to the 1000 gallon tank and was requested to be sampled since it had been used to water fruit trees and vegetables onsite.

After five consecutive quarters of ND for all constituents of concern, MW-2 was not required to be further monitored. MW-1, has indicated a decreasing concentration of petroleum contamination. The irrigation well was sampled twice, in 6/96 and 9/96, and only low levels of BEX were detected. The last event detected only 8 ppb benzene with all other contaminants ND.

Site closure is recommended based upon:

1. Complete site characterization;
 2. Extensive source removal through aggressive soil excavation; and
 3. Long term monitoring which verifies negligible groundwater impact.
- Natural bioremediation should continue to improve site conditions.

Site closure is recommended, however, the irrigation well water should not be used as a drinking water source.



SEQUOIA Analytical Laboratory

10000 Wilbur Avenue
San Jose, CA 95131 • (415) 264-9222

Blaine Tech Services
P.O. Box 5745
San Jose, CA 95150
Attn: Richard Blaine

Date Sampled: 04/28/86
Date Received: 04/28/86
Date Reported: 05/20/86

Sample Number

6041171

Sample Description

BTS #86115B1, Soil
Tank Excavators at 1009
89th Ave. in Oakland, CA
#1

ANALYSIS

Common Solvents, ppm

Gasoline

1100

NOTE: Analysis was performed using EPA method 8020.

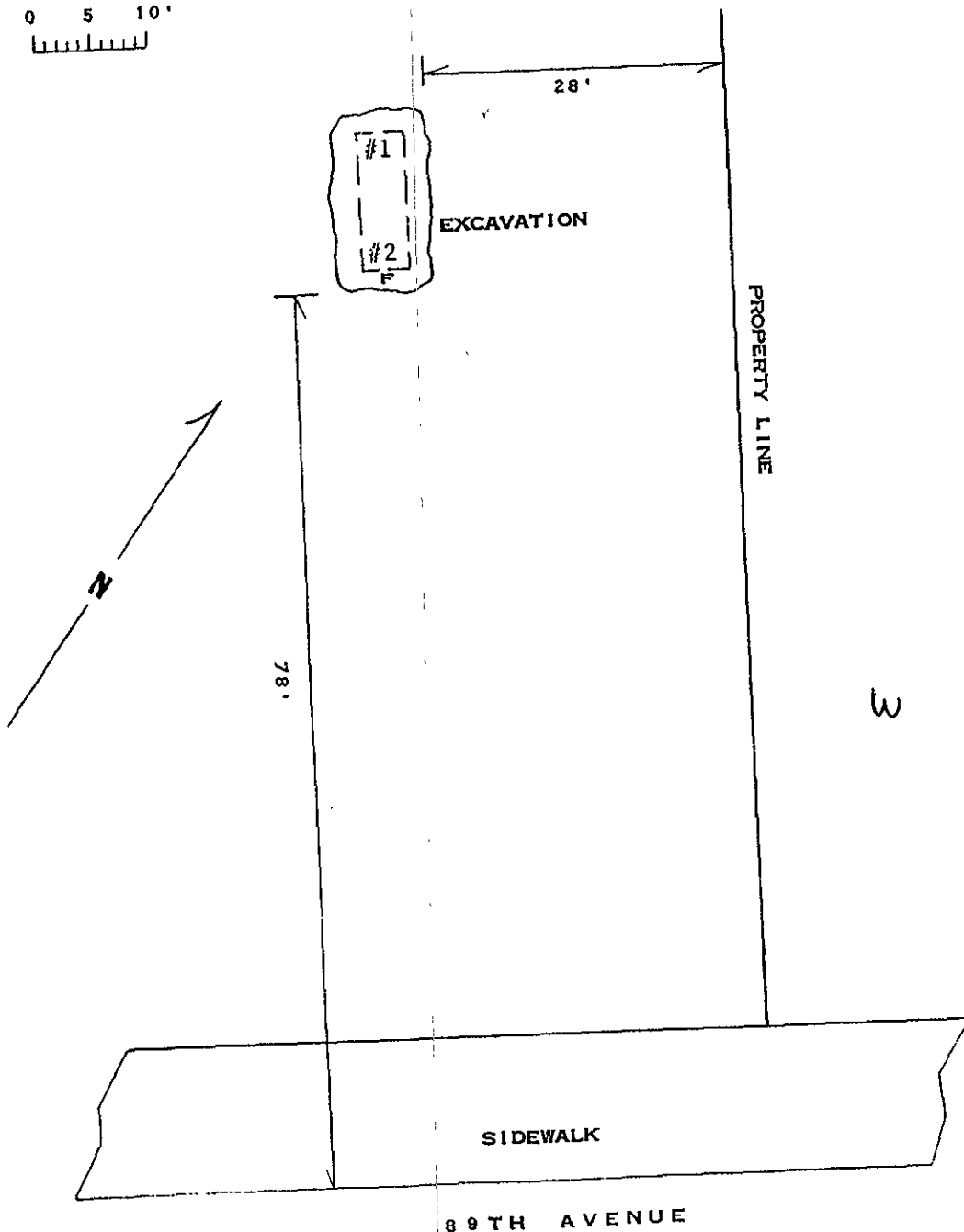
SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

sls

Blaine, Sewer Contractor

SCALE: 0 5 10'
[Scale bar with markings at 0, 5, and 10 feet]



MAP REF: THOMAS BROS.
ALAMEDA COUNTY
P. 22 E-1

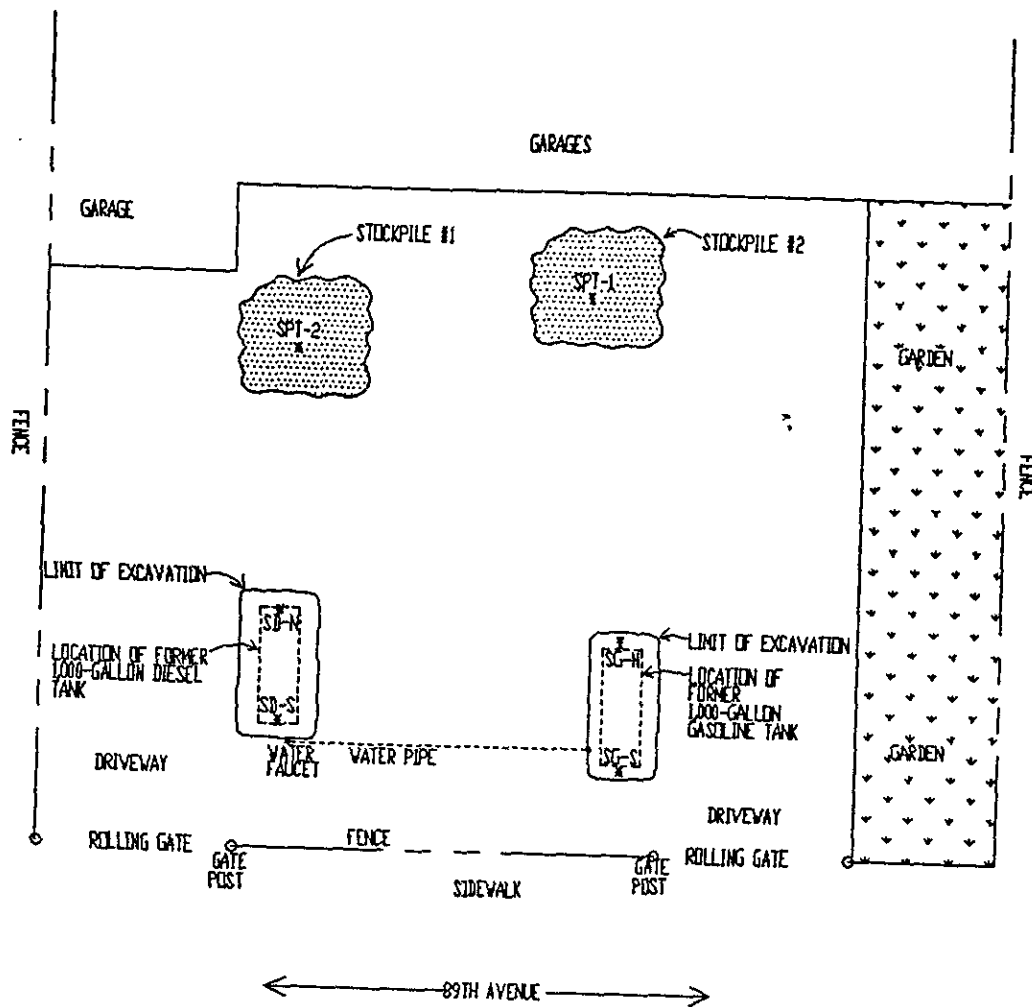
LEGEND: F = FILL PIPE

- #1 SOIL FROM 10'
ANALYSIS REQUESTED: COMBUSTION
SOLVENT SCAN (GASOLINE) AT
SEQUOIA ANALYTICAL LABORATORY
SEQUOIA LAB NO. 6041171
- #2 SOIL FROM 12'8"
ANALYSIS REQUESTED: COMBUSTION
SOLVENT SCAN (GASOLINE)
SEQUOIA LAB NO. 6041172

SAMPLING PERFORMED BY
RICHARD C. BLAINE
DIAGRAM PREPARED BY
TAMMIE STALLINGS

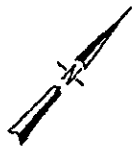
RECEIVED
FBI JUN 12 A D 45
FIRE PREVENTION

89TH AVENUE



LEGEND

SG-N
* NAME AND LOCATION OF SOIL SAMPLE



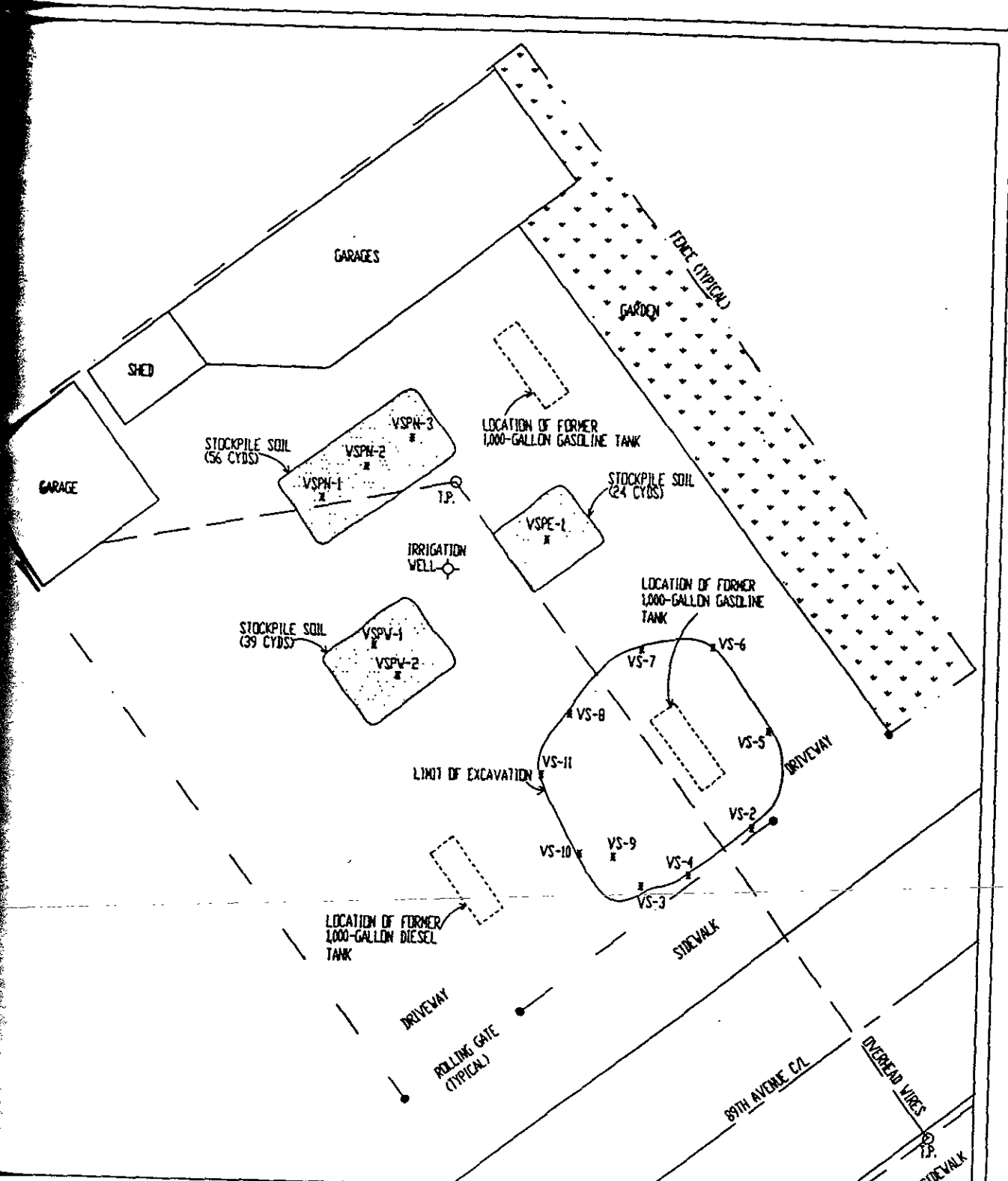
0 20
APPROXIMATE SCALE IN FEET

TANK PROTECT ENGINEERING

TANK REMOVAL SITE PLAN (5/4/92)

MANUEL RODRIGUES
1009 89TH AVENUE
OAKLAND, CA

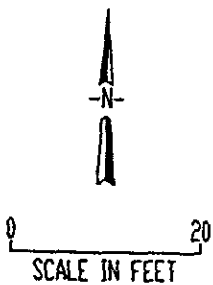
DATE	9/16/92
FIGURE	2
FILE #	225C-3
DRAWN BY	MAC
CHECKED BY	JVH



LEGEND

NAME AND LOCATION OF SOIL SAMPLE

LOCATION OF TELEPHONE POLE



TANK PROTECT ENGINEERING

SITE PLAN
STOCKPILE SOIL SAMPLING (4/20/93)

MANUEL RODRIGUES
1009 89TH AVENUE
OAKLAND, CA 94621

DATE	2/25/94
FIGURE	9
FILE #	225-9
DRAWN BY	VK
CHECKED BY	JVM

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)

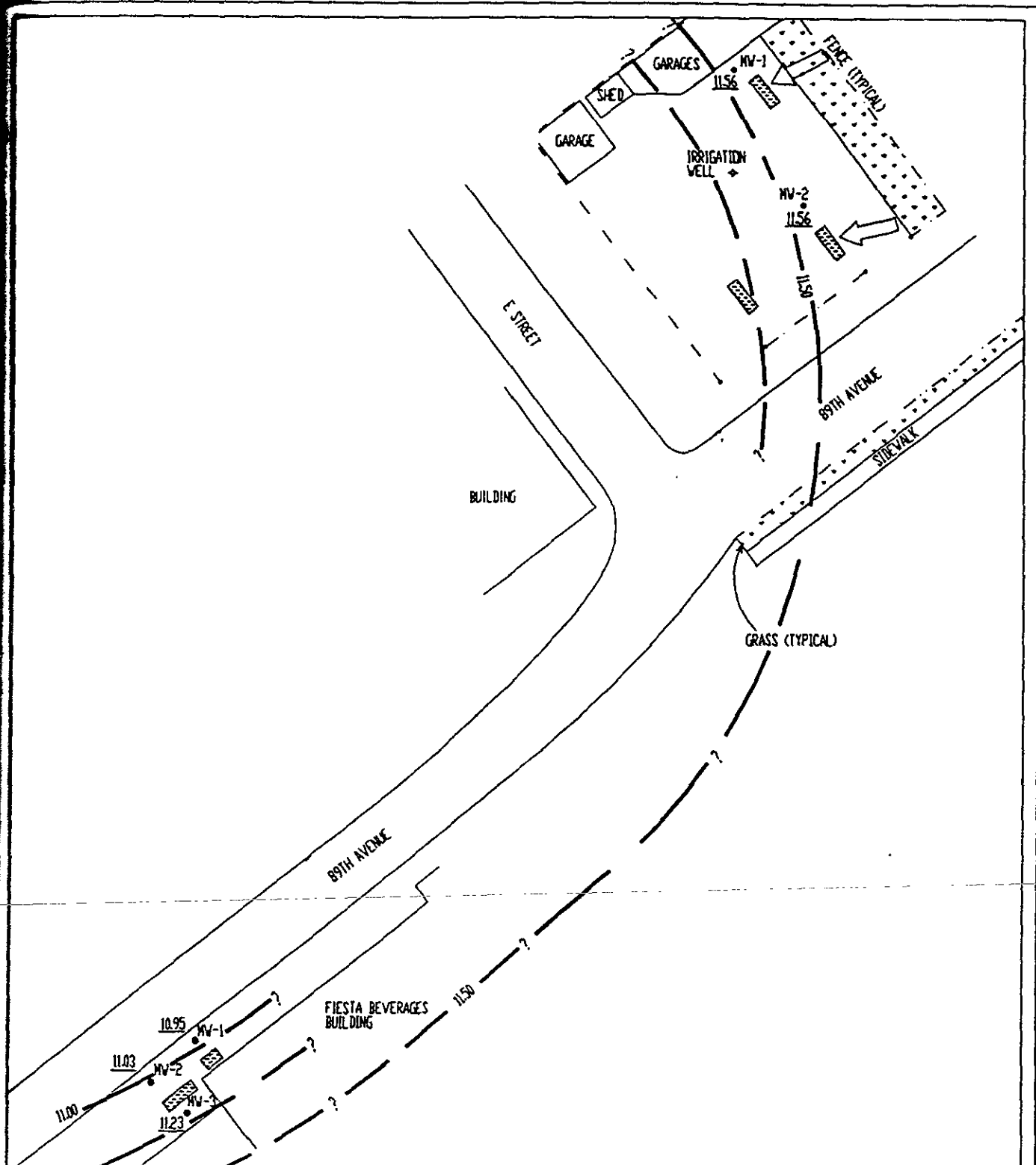
Sample ID Name	Date	Depth (feet)	TPHD	TPHG	Benzene	Toluene	Ethyl-Benzene	Xylenes
SD-N	05/04/92	7.5	<1	9	<0.005	<0.005	<0.005	<0.015
SD-S	05/04/92	7.5	<1	9	<0.005	<0.005	<0.005	<0.015
SPT-2	05/04/92	—	<1	9	<0.005	<0.005	<0.005	<0.015
SG-N	05/04/92	7.5	NA ²	10	<0.005	<0.005	<0.005	<0.015
SG-S	05/04/92	8.0	NA	85	<0.005	<0.005	<0.005	<0.015
SPT-1	05/04/92	---	NA	15	<0.005	<0.005	<0.005	<0.015
SP-1	07/02/92	1.5	NA	<1	<0.005	<0.005	<0.005	<0.005
SP-2	07/02/92	2.5	NA	<1	<0.005	<0.005	<0.005	<0.005
SP-3	07/02/92	1.5	NA	<1	<0.005	<0.005	<0.005	<0.005
VS-2	07/02/92	10.0	NA	<1	<0.005	<0.005	<0.005	<0.005
VS-3	07/02/92	9.5	NA	<1	<0.005	<0.005	<0.005	<0.005
VS-4	10/22/92	10.0	NA	<.500	<0.005	<0.005	<0.005	<0.015
SP4-(A-D)	10/27-28/92	1.0-1.5	NA	44	<.026	.081	1.3	4.3
SP5-A	10/27/92	1.5	NA	2.4	.0051	.017	.065	.630
SP5-B	10/27/92	1.5	NA	<.500	<0.005	.0052	.010	.035
SP6-(A-B)	10/27/92	0.5-1.5	NA	.720	<0.005	<0.005	.015	.049
SP7-(A-D)	10/28/92	1.5-2.0	NA	49	<.052	.077	1.6	4.5
SP8-(A-D)	10/28/92	1.5	NA	86	<.013	.076	.640	2.0
SP9-A	01/22/93	2.0-2.5	NA	<1	<.005	<.005	<.005	<.005
SP9-B	01/22/93	1.5-2.0	NA	<1	<.005	<.005	<.005	<.005
SP9-C	01/22/93	1.5-2.0	NA	<1	<.005	<.005	<.005	<.005
SP10-A	03/04/93	2.5-3.0	NA	<1	<.005	<.005	<.005	<.005
SP10-B	03/04/93	3.0-3.5	NA	<1	<.005	<.005	<.005	<.005
SP10-C	03/04/93	2.5-3.0	NA	<1	<.005	<.005	<.005	<.005
SP10-D	03/04/93	3.0-3.5	NA	<1	<.005	<.005	<.005	<.005
SP10-E	03/04/93	3.0-3.5	NA	<1	<.005	<.005	<.005	<.005
VS-5	03/15/93	9.0	NA	<1	<.005	<.005	<.005	<.005
VS-6	03/15/93	9.0	NA	<1	<.005	<.005	<.005	<.005

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)






Sample ID Name	Date	Depth (feet)	TPHD	TPHG	Benzene	Toluene	Ethyl-Benzene	Xylenes
VS-7	03/15/93	9.0	NA	<1	<.005	<.005	<.005	<.005
VS-8	03/15/93	9.0	NA	<1	<.005	<.005	<.005	<.005
SP11-(A-D)	03/15/93	1.0-1.5	NA	42.6	<.005	<.005	<.005	<.005
VS-9	03/16/93	13.5	NA	5.0	<.005	<.005	<.005	<.005
SP11-(E-H)	03/16/93	2.0-2.5	NA	<1	.0064	<.005	<.005	<.005
VS-10	03/31/93	---	NA	<1	<.005	<.005	<.005	<.005
VS-11	03/31/93	---	NA	<1	<.005	<.005	<.005	<.005
SP12-(A-D)	03/31/93	1.0-1.5	NA	92.0	.016	.013	.005	.009
VSPN-1	04/20/93	3.0	NA	<1	<.005	<.005	<.005	<.005
VSPN-2	04/20/93	3.0	NA	<1	<.005	<.005	<.005	<.005
VSPN-3	04/20/93	3.0	NA	<1	<.005	<.005	<.005	<.005
VSPW-1	04/20/93	3.0	NA	2.4	<.005	<.005	<.005	<.005
VSPW-2	04/20/93	3.0	NA	<1	<.005	<.005	<.005	<.005
VSPE-1	04/20/93	2.5	NA	<1	<.005	<.005	<.005	<.005
MW-1	01/05/94	6.0-6.5	NA	<.500	<.005	<.005	<.005	<.015

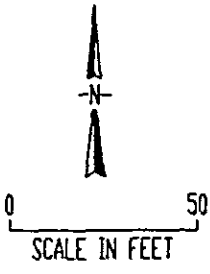
¹ PARTS PER MILLION

² NOT ANALYZED



LEGEND

-  NAME AND LOCATION OF GROUNDWATER MONITORING WELL
-  LOCATION OF FORMER FUEL TANK
-  POTENTIOMETRIC ELEVATION
-  POTENTIOMETRIC CONTOUR
-  GROUNDWATER FLOW DIRECTION

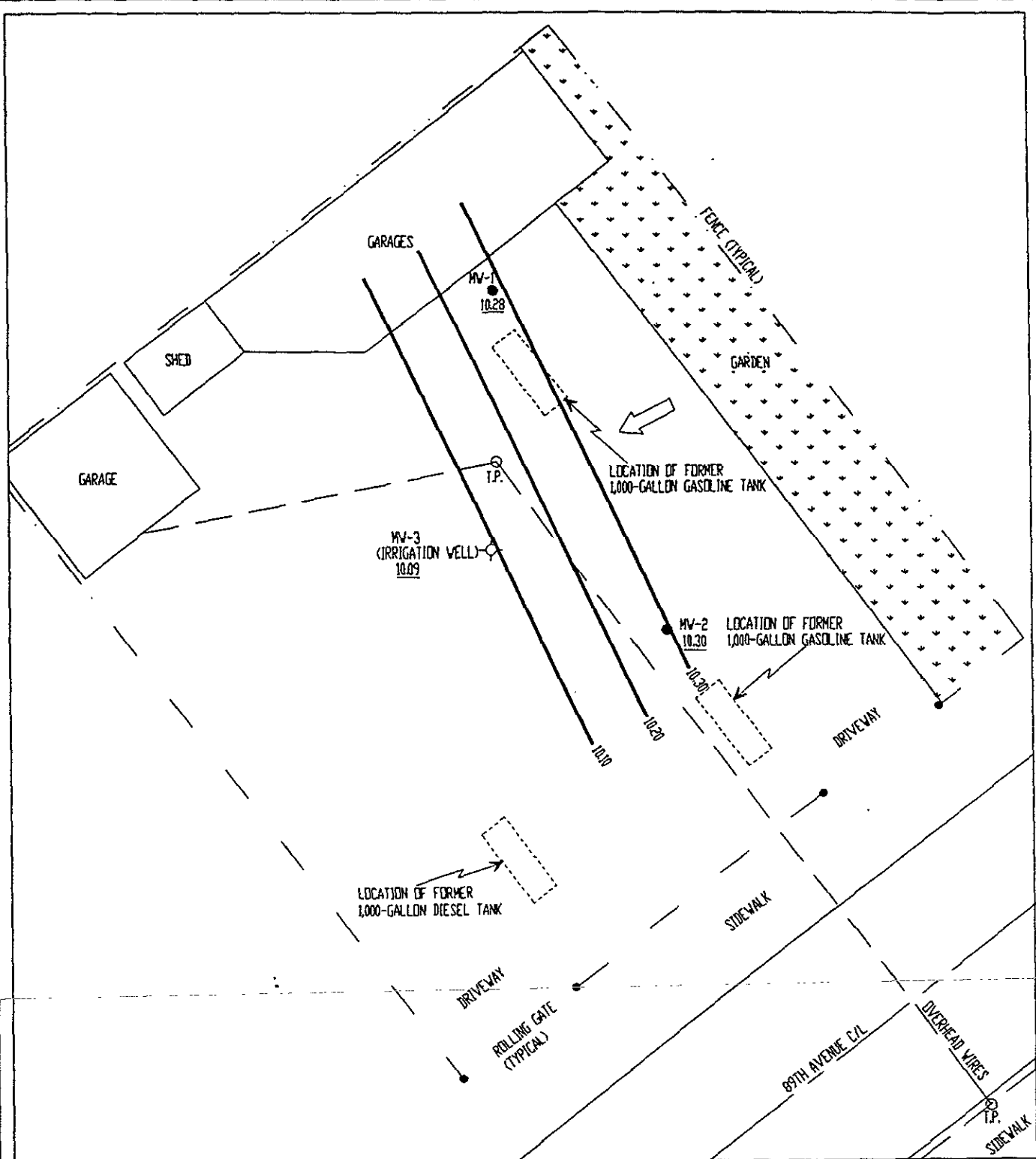


TANK PROTECT ENGINEERING

SITE PLAN:
GROUNDWATER GRADIENT MAP (2/25/94)

MANUEL RODRIGUES
1009 89TH AVENUE
OAKLAND, CA 94621

DATE	2/11/94
FIGURE	12
FILE #	225-11
DRAWN BY	AK
CHECKED BY	JVM



LEGEND

- MW-1 ● APPROXIMATE LOCATION OF GROUNDWATER MONITORING WELL
- IRRIGATION WELL
- T.P. LOCATION OF TELEPHONE POLE
- 10.28 POTENTIOMETRIC ELEVATION
- 10.30 POTENTIOMETRIC CONTOUR
- ← GROUNDWATER FLOW DIRECTION

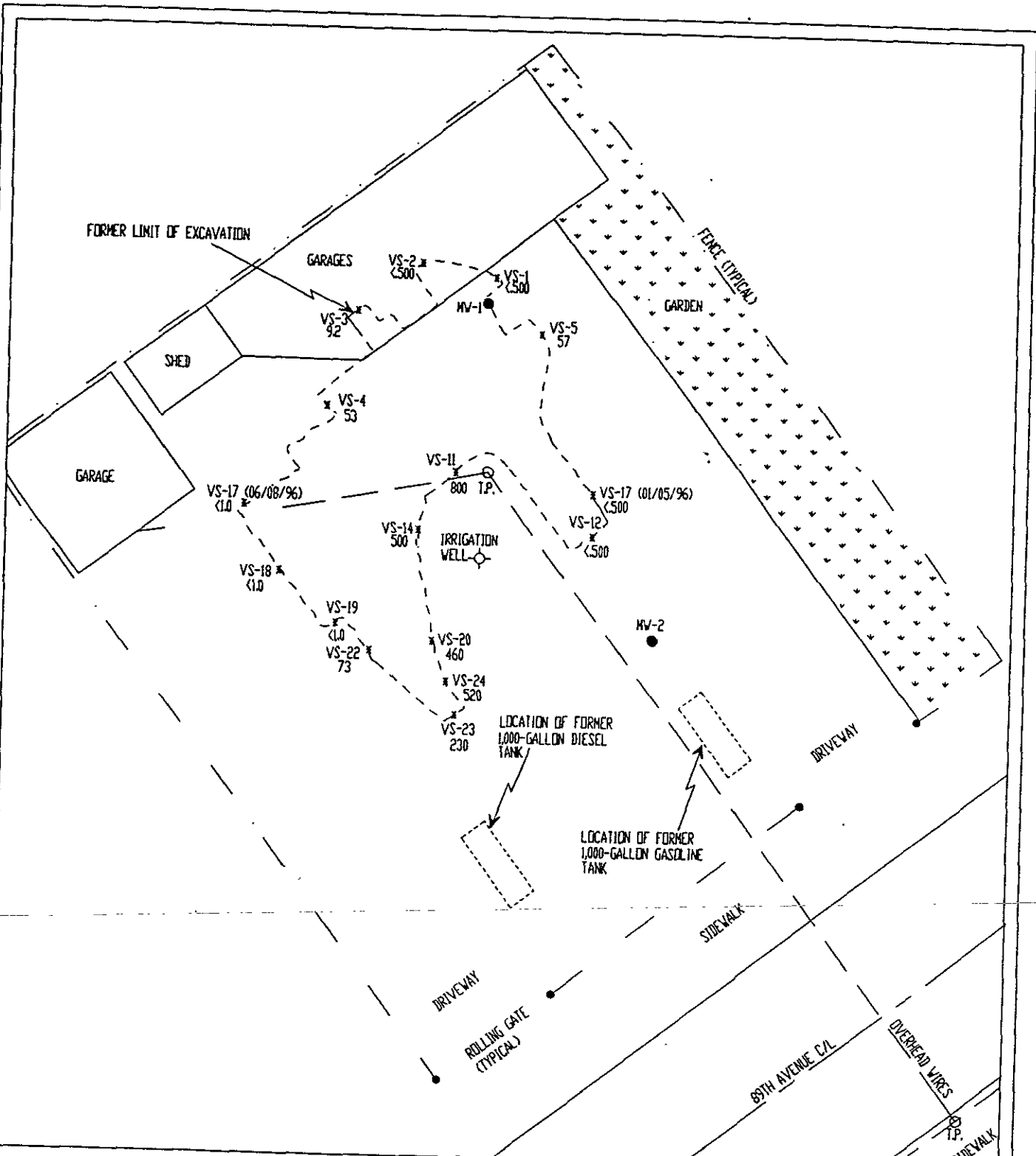
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APPROXIMATE SCALE IN FEET

TANK PROTECT ENGINEERING

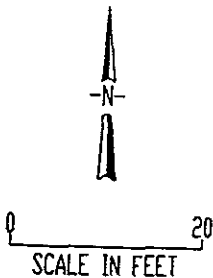
SITE PLAN:
GROUNDWATER GRADIENT MAP (09/06/96)

MANUEL RODRIGUES 1009 89TH AVENUE OAKLAND, CA 94621	DATE	1/31/97
	FIGURE	12
	FILE #	225-12N
	DRAWN BY	VK
	CHECKED BY	LMH



LEGEND

- MW-1 ● NAME AND LOCATION OF GROUNDWATER MONITORING WELL
- VS-23 * NAME AND LOCATION OF SOIL SAMPLE
- T.P. LOCATION OF TELEPHONE POLE
- <500 CONCENTRATION (ppm)



TANK PROTECT ENGINEERING

SITE PLAN:
FINAL VERIFICATION SOIL SAMPLING LOCATION
TPHG CONCENTRATIONS

MANUEL RODRIGUES
1009 89TH AVENUE
DAILAND, CA 94621

DATE	1/31/97
FIGURE	13
FILE #	225-13N
DRAWN BY	VK
CHECKED BY	LNH

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)

Sample ID Name	Date	Depth (feet)	TPHG	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
SP1-(1,2,3,4)	06/19/95	2.5-3.0	38	NA ²	.160	.047	.087	.790
VS-1	06/19/95	10.0	<.500	NA	<.005	<.005	<.005	<.015
VS-2	06/19/95	10.0	<.500	NA	<.005	<.005	<.005	<.015
VS-3	06/20/95	10.5	9.2	NA	.0066	<.005	<.005	<.015
VS-4	06/20/95	11.0	53	NA	<.150	<.150	<.150	<.440
VS-5	06/20/95	11.0	57	NA	<.150	<.150	<.150	<.440
VS-6	06/20/95	10.5	120	NA	<.150	<.150	<.150	.480
VS-7	06/20/95	10.5	640	NA	1.6	.950	8.8	42
CSP-1	06/20/95	2.5-3.0	33	NA	.120	.025	.170	1.7
CSP-2	06/20/95	2.5-3.0	<.500	NA	<.005	<.005	<.005	<.015
CSP-3	08/01/95	1.5	<.500	NA	<.005	.0077	<.005	<.015
VS-8	08/01/95	11.0	340	NA	.750	<.300	.870	1.7
VS-9	08/01/95	11.0	1.1	NA	.066	.0088	.029	.022
VS-10	08/01/95	11.0	500	NA	1.5	6.2	8.7	44
VS-11	08/01/95	11.0	800	NA	2.7	3.3	11	63
SP2(A-D)	08/01/95	2.5-3.0	130	NA	.370	.240	1.3	7.5
VSP 10-A	09/15/95	1.0-1.5	<1.0	NA	<.005	<.005	<.005	<.005
VSP 11-B	09/15/95	2.0-2.5	<1.0	NA	<.005	<.005	<.005	<.005
VSP 12-C	09/15/95	3.0-3.5	<1.0	NA	<.005	<.005	<.005	<.005
VSP 13-D	09/15/95	1.0-1.5	<1.0	NA	<.005	<.005	<.005	<.005
VSP 14-A	09/15/95	2.0-2.5	<1.0	NA	<.005	<.005	<.005	<.005
VSP 15-B	09/15/95	3.0-3.5	<1.0	NA	<.005	<.005	<.005	<.005
VSP 16-C	09/15/95	1.0-1.5	<1.0	NA	<.005	<.005	<.005	<.005
VSP 17-D	09/15/95	2.0-2.5	<1.0	NA	<.005	<.005	<.005	<.005
VSP 18-A	09/15/95	3.0-3.5	<1.0	NA	<.005	<.005	<.005	<.005
VS-12	01/05/96	11.0	<.500	<.050	<.005	<.005	<.005	<.015
VS-13	01/05/96	12.0	100	<.730	.430	<.073	.260	4.0
VS-14	01/05/96	11.0	500	<.740	.690	.990	4.0	34

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)

Sample ID Name	Date	Depth (feet)	TPHG	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes
VS-15	01/05/96	11.0	220	<.730	.660	.380	.540	7.6
VS-16	01/05/96	11.0	1,600	<7.4	5.2	12	20	140
VS-17	01/05/96	10.0	<.500	<.050	<.005	<.005	<.005	<.015
STK10-1,2,3,4	01/08/96	2.5-3.0	150	<.290	.079	.091	.890	5.2
STK11-1,2,3,4	01/08/96	2.5-3.0	2.9	<.050	.014	<.005	<.005	<.015
STK 1-A	05/21/96	2.0-2.5	1.5	NA	<.005	.006	.005	.025
STK 2-B	05/21/96	1.0-1.5	<1.0	NA	<.005	<.005	<.005	<.005
STK 3-C	05/21/96	3.0-3.5	1.0	NA	<.005	<.005	<.005	.022
STK 4-D	05/21/96	2.0-2.5	1.0	NA	<.005	.011	.0053	.021
STK 5-A	05/21/96	1.0-1.5	<1.0	NA	<.005	.0066	<.005	.016
VS-17	06/08/96	12.0	<1.0	<.050	<.005	<.005	<.005	<.005
VS-18	06/08/96	11.0	<1.0	<.050	<.005	<.005	<.005	<.005
VS-19	06/08/96	11.0	<1.0	<.050	<.005	<.005	<.005	<.005
VSP-30A	06/08/96	1.5-2.0	<1.0	<.050	<.005	<.005	<.005	<.005
VSP-31B	06/08/96	2.0-2.5	<1.0	<.050	<.005	<.005	<.005	<.005
VSP-32C	06/08/96	3.0-3.5	1.4	<.050	<.005	<.005	.0069	.030
VSP-33D	06/08/96	1.5-2.0	1.4	<.050	<.005	<.005	<.005	.022
STK-12A to D	06/08/96	1.5-2.0	39	<.050	.120	.036	.250	.980
STK-13A to D	06/08/96	2.0-2.5	100	.260	.230	.054	.770	4.7
VS-20	06/10/96	11.0	460	NA	.160	.160	.400	1.0
VS-21	06/10/96	10.5	210	NA	.068	.032	.210	.470
VS-22	06/10/96	10.0	73	NA	.019	.037	.028	.140
VS-23	06/14/96	10.0	230	<.005	.460	.190	.340	.870
VS-24	06/14/96	10.0	520	<.005	.810	.770	.770	3.5
VSS-1	07/08/96	2.5-3.0	<1.0	<5.0	<.005	<.005	<.005	<.005
VSS-2	07/08/96	2.5-3.0	<1.0	<5.0	<.005	<.005	<.005	<.005
VSS-3	07/08/96	2.5-3.0	<1.0	<5.0	<.005	<.005	<.005	<.005
VSS-4	07/08/96	2.5-3.0	<1.0	<5.0	<.005	<.005	<.005	<.005

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)

Sample ID Name	Date	Depth (feet)	TPHG	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes
VSS-5	07/08/96	2.5-3.0	<1.0	<5.0	<.005	<.005	<.005	<.005

1 PARTS PER MILLION
2 NOT ANALYZED

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ppb¹)

Sample ID Name	Date	TPHG	Methyl t-butyl ether	Benzene	Toluene	Ethyl-benzene	Xylenes
MW-1	01/14/94	120	NA ³	6.9	0.60	2.5	12
	06/10/94	<50	NA	1.2	<0.50	1.0	<1.5
	09/08/94	<50	NA	<0.50	<0.50	<0.50	<1.5
	12/09/94	69	NA	0.59	<0.50	1.3	<1.5
	03/10/95	1,400	NA	21	<0.50	46	99
	06/14/95	<50	NA	<0.50	<0.50	<0.50	<1.5
	09/08/95	<50	<5.0	0.68	<0.50	0.53	<1.5
	12/18/95	630	<5.0	12	<0.50	16	20
	03/15/96	210	<5.0	8.3	<0.50	9.3	13
	06/07/96	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	09/06/96	<50	<5.0	<0.5	<0.5	<0.5	<0.5
MW-2	01/14/94	<50	NA	<0.50	<0.50	<0.50	<1.5
	06/10/94	<50	NA	<0.50	<0.50	<0.50	<1.5
	09/08/94	<50	NA	<0.50	<0.50	<0.50	<1.5
	12/09/94	<50	NA	<0.50	<0.50	<0.50	<1.5
	03/10/95	<50	NA	<0.50	<0.50	<0.50	<1.5
	06/14/95	NA	NA	NA	NA	NA	NA
	09/08/95	NA	NA	NA	NA	NA	NA
	12/18/95	NA	NA	NA	NA	NA	NA
	03/15/96	NA	NA	NA	NA	NA	NA
MW-3 ²	01/14/94	<50	NA	<0.50	<0.50	<0.50	<1.5
	06/10/94	<50	NA	<0.50	<0.50	<0.50	<1.5
	09/08/94	<50	NA	<0.50	<0.50	<0.50	<1.5
	12/09/94	<50	NA	<0.50	<0.50	<0.50	<1.5
	03/10/95	<50	NA	<0.50	<0.50	<0.50	<1.5
	06/14/95	<50	NA	<0.50	<0.50	<0.50	<1.5
	09/08/95	<50	<5.0	<0.5	<0.5	<0.5	<1.5

TABLE 4
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ppb¹)

Sample ID Name	Date	TPHG	Methyl t-butyl ether	Benzene	Toluene	Ethyl-benzene	Xylenes
MW-3 ²	12/18/95	<50	<5.0	<0.50	<0.50	<0.50	<1.5
	03/15/96	<50	<5.0	<0.50	<0.50	<0.50	<1.5
MW-3 ⁴	06/07/96	<50	<5.0	6.6	<0.5	2.1	14
	09/06/96	<50	<5.0	8.0	<0.5	<0.5	<0.5
MW-4 ²	06/07/96	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	09/06/96	<50	<5.0	<0.5	<0.5	<0.5	<0.5

1 PARTS PER BILLION

2 TRIP BLANK

3 NOT ANALYZED

4 IRRIGATION WELL

VOLUME OF SOIL REMEDIATION

Date backfilled	Remediated & reused (cyds)	Hauled Offsite (cyds)
10/22/1992	24	88
03/30/93	210	---
04/26/93 through 04/29/93	122	---
10/04/95 through 10/06/95	180	---
06/05/96	100	---
07/18/96 through 07/19/96	100	---
Total Project	736	88