

*Mayer Development Co.*

**LEON E. MAYER**  
753 PERALTA AVENUE  
SAN LEANDRO, CA 94577

92 JUL 28 10 10 AM '92

BUS. 510-569-4457  
RES. 510-582-2220

July 27, 1992

Alameda County Health Dept.  
Division of Hazardous Materials  
80 Swan Way, Room 200  
Oakland, CA. 94621  
Attn: Barney Chan

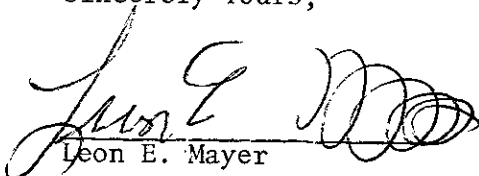
Dear Mr. Chan;

Enclosed please find final site evaluation report on the subject site.

Please consider a quick review of said report as we have final financing, permits and construction crew ready to start this project as soon as we obtain your final approval. These homes as you know will be low cost housing therefore we also have people waiting for their homes.

Also the City is pushing us to start this construction as they have a financial interest in this project.

Sincerely Yours,

  
Leon E. Mayer

SITE EVALUATION REPORT

MAYER PROPERTIES, INC.  
342-344 105th Avenue  
Oakland, California

Prepared for:


Mr. Leon Mayer  
Mayer Properties, Inc.  
753 Peralta Avenue  
San Leandro, California 94577


Prepared by:

SJV Consultants  
P.O. Box 7418  
Fremont, California 94537

July 21, 1992

File No 0191022 00

  
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K A Madenwald, PE, RG

  
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John N Alt CEG 1136

## TABLE OF CONTENTS

Introduction .....	1
Background .....	1
Groundwater Wells .....	5
Groundwater Analysis .....	5
Regional Geology .....	8
Discussion .....	10
Recommendations .....	11
Plate 1 Vicinity Map .....	2
Plate 2 Tank and Sample Location .....	3
Plate 3 Relative Groundwater Elevation .....	6
Plate 4 Local Groundwater Down Gradient Direction .....	7
Table 1 Summary, Groundwater Analyses .....	9
Appendix I CTTs Report on Soil Sampling	
Appendix II SCS Engineers Reports	
1) Tank Removal	
2) Groundwater Wells	
Appendix III SJV Consultants GW Sampling	

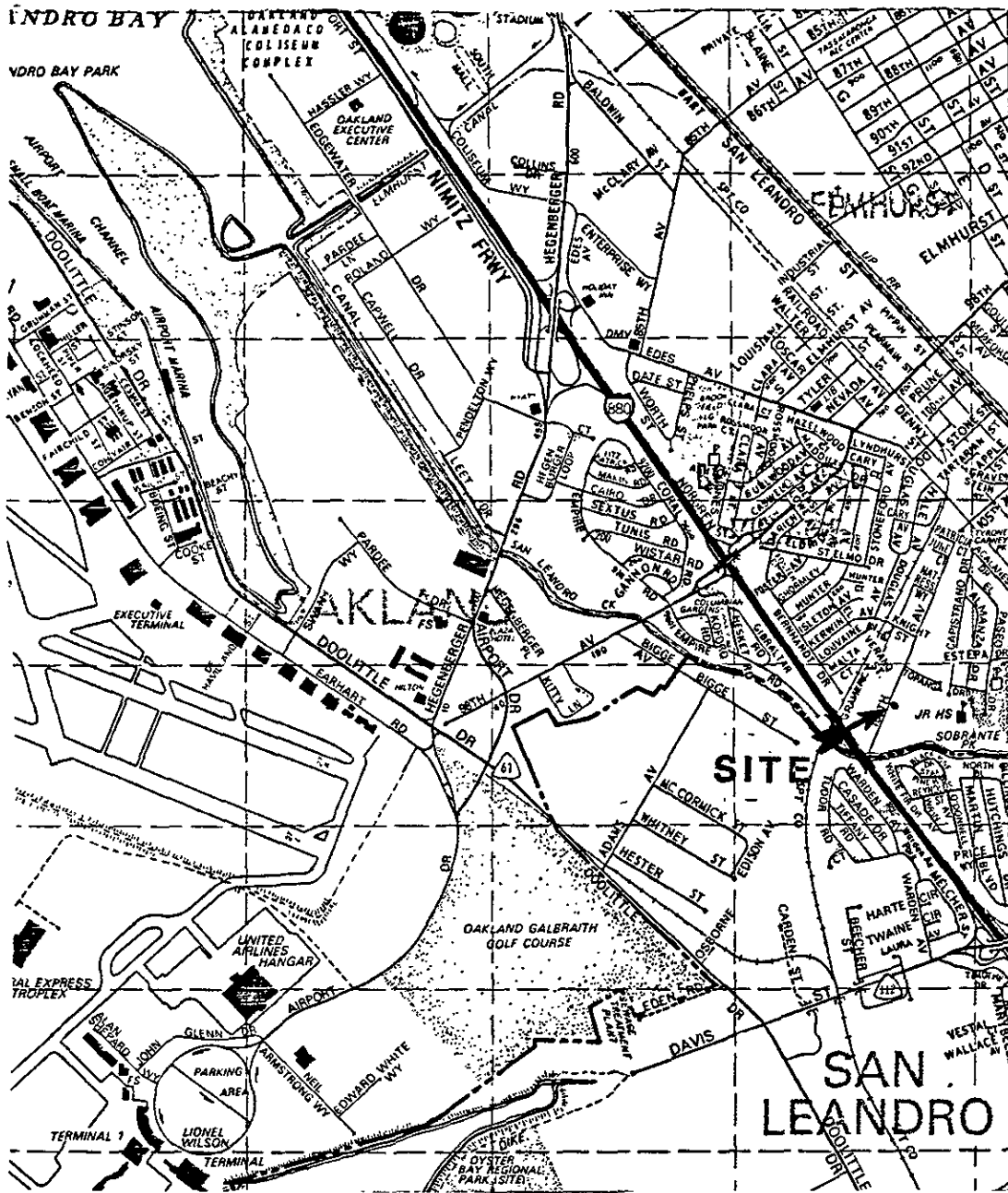
## Introduction

This report presents the evaluation of the completed work at a site located at 342-344 105th Avenue, Oakland, California (See Plate 1). The site was formerly owned by the Turrini family and was used as a nursery property. The site has been vacant for some years and was purchased by Mayer Development, Inc. for the purpose of constructing multiple low cost dwelling units. This report lists the work accomplished on the site and evaluates: the groundwater investigation, investigative methods, remedial activities and effectiveness and remediation sign off are presented.

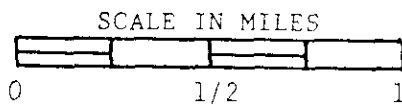
## Background

The site, located at 342-344 105th Avenue, Oakland, California was formerly a nursery owned by the Turrini family. Two greenhouses were located on the property and a small boiler was used to provide steam for heating the greenhouses. The boiler was supplied by a 500 gallon steel underground tank (See Plate 2) with one 24 inch opening in the center of the tank. It appears that the fill and supply port, to the boiler, were one and the same. An underground oil line leading to the area of the boiler was noted and removed.

The underground tank was removed by Verls' Construction on December 18, 1991. On January 17, 1990, Mr. Ariu Levi, Alameda County Health Care Services Agency wrote a letter to Verl Rothlisberger of Verls' Construction stating: "Because of the degree of contamination found,



MAP SOURCE:  
 THOMAS BROTHERS, 1989 edition



**SCS ENGINEERS**  
 STEARNS CONRAD AND SCHMIDT  
 CONSULTING ENGINEERS INC

6761 D SIERRA COURT  
 DUBLIN, CA 94568

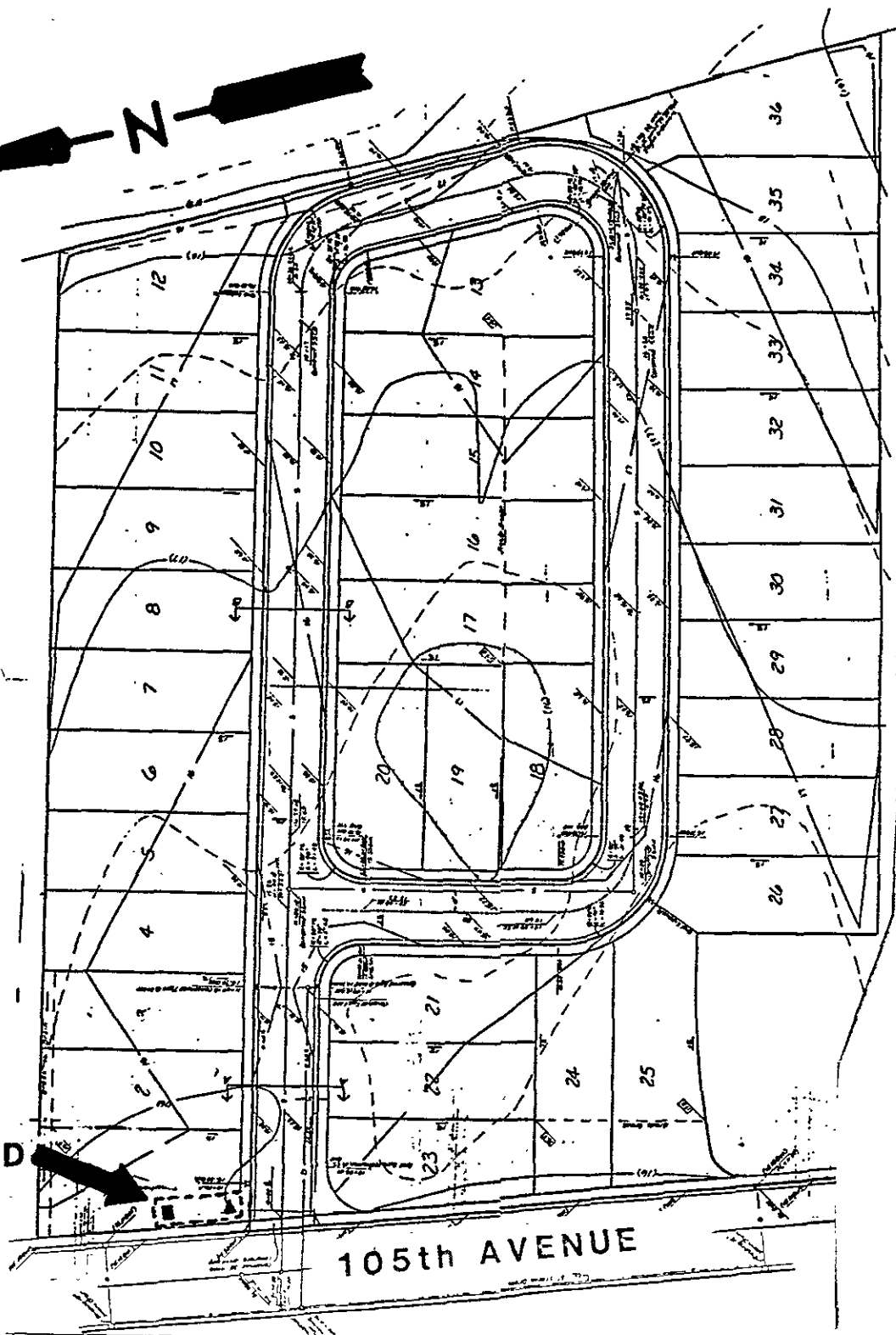
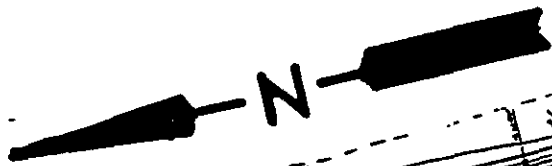
VICINITY MAP  
 VERL'S CONSTRUCTION, INC.  
 OAKLAND, CALIFORNIA

Project No 0389060.00

Date 2-13-90

Plate

**1**



**LEGEND**

- ▲ S-1
- S-2

**TANK  
REMOVED**

**105th AVENUE**



**SCS ENGINEERS**

STEARNS, CONRAD AND SCHMIDT  
CONSULTING ENGINEERS, INC.

8761 D SIERRA COURT  
DUBLIN, CA 94568

SAMPLE LOCATIONS  
VERL'S CONSTRUCTION, INC.  
OAKLAND, CALIFORNIA

0389060 00

Date 2-14-90

Plate

**2**

this facility is considered to have experienced a confirmed release of petroleum hydrocarbons that has impacted subsurface soil and ground water. The extent of this contamination must be assessed and re-mediated".

On February 20, 1990, CTTS (Toxic Technology Services) obtained soil samples from under the product pipeline (leading from the underground tank to the boiler area, from the tank excavation, from the excavation walls and from the removed topsoil. Analytical results indicated that the excavation and the excavation walls were highly contaminated and that excavation by Verls' Construction did not encompass the entire "plume" of contaminated soil. Also, it was noted that the "topsoil" indicated minor amounts of contaminants. The analytical results attached to the report list the findings for EPA 8080 and nothing more (See Appendix I).

On February 22, 1990, SCS Engineers issued the report for the removal of the storage tank at the subject site. Soil samples were taken at the ends of the tank excavation and noted contaminants in the soil and "oily product" visible in the bottom of the excavation. The sample from the south end of the excavation (S-1) noted 4100 ppm Total Oil and Grease (503E) and 3000 ppm Oil and Grease (503D). The sample from the north end of the excavation (S-2) indicated 7700 ppm Oil and Grease (503E) and 10,000 ppm Oil and Grease (503D) and 230 ppm diesel (EPA 8015 D). Other constituents of less than <10 ppm were noted based on EPA 8270 analysis (See Appendix II-1)

### Groundwater Wells

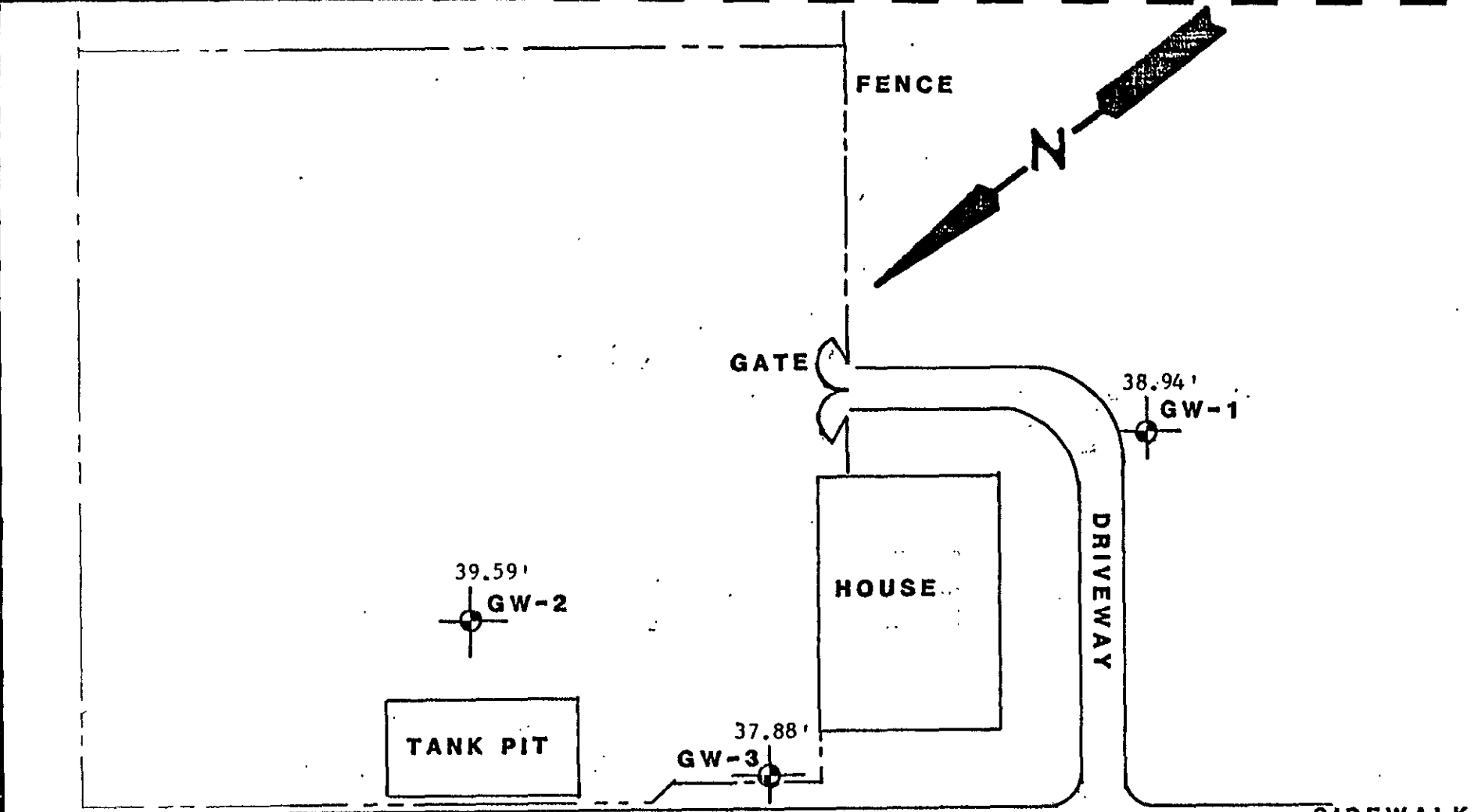
SCS Engineers, Dublin, California proposed and was awarded the contract to drill three (3) borings/groundwater monitoring wells on the property. The wells, as proposed, were directly south of the tank, southwest of the tank in an assumed downgradient direction and east of the tank in an upgradient direction and also in the vicinity of the fuel supply line to the boiler (See Plate 3). The wells were drilled on February 22nd and 23rd, 1990 to a Total Depth of 25 feet below ground surface. All wells were cased with 4" Sch. 40 PVC casing and Wells 1 and 2 were developed on February 23rd and 26th. Well 3 would not recharge and it was believed that the aquifer had smeared with mud so the well was surged by TAT. All wells were then measured for groundwater elevation. Based on the groundwater elevation survey downgradient flow direction is westerly (See Plate 4 and Appendix II-2).

### Groundwater Analyses

Analysis of the original groundwater samples indicate that, all three wells, for Diesel and Total Oil and Grease, were ND and on March 8, 1990 SCS Engineers again sampled MW-3 and analyses for Diesel and Total Oil and Grease were ND (See Appendix II-2).


SJV Consultants sampled MW-1 and MW-3 on April 15, 1992. Groundwater elevations were taken for the record and to obtain a partial determination of approximate water gradient. Analyses for Base Neutral And Acid Extractables (EPA Method 625), TPH(g) with BTEX (EPA Methods 5030 and 8020), TPH(d) (EPA Method 3510) and Total Oil and Grease (EPA Method 5520BF) indicated ND for all parameters





SIDEWALK

105th AVENUE

 GROUNDWATER MONITORING WELL

SCALE: 1" = 30'



**SCS ENGINEERS**  
 STEARNS, CONRAD AND SCHMIDT  
 CONSULTING ENGINEERS, INC.  
 6761 O SIERRA COURT  
 DUBLIN, CA 94568

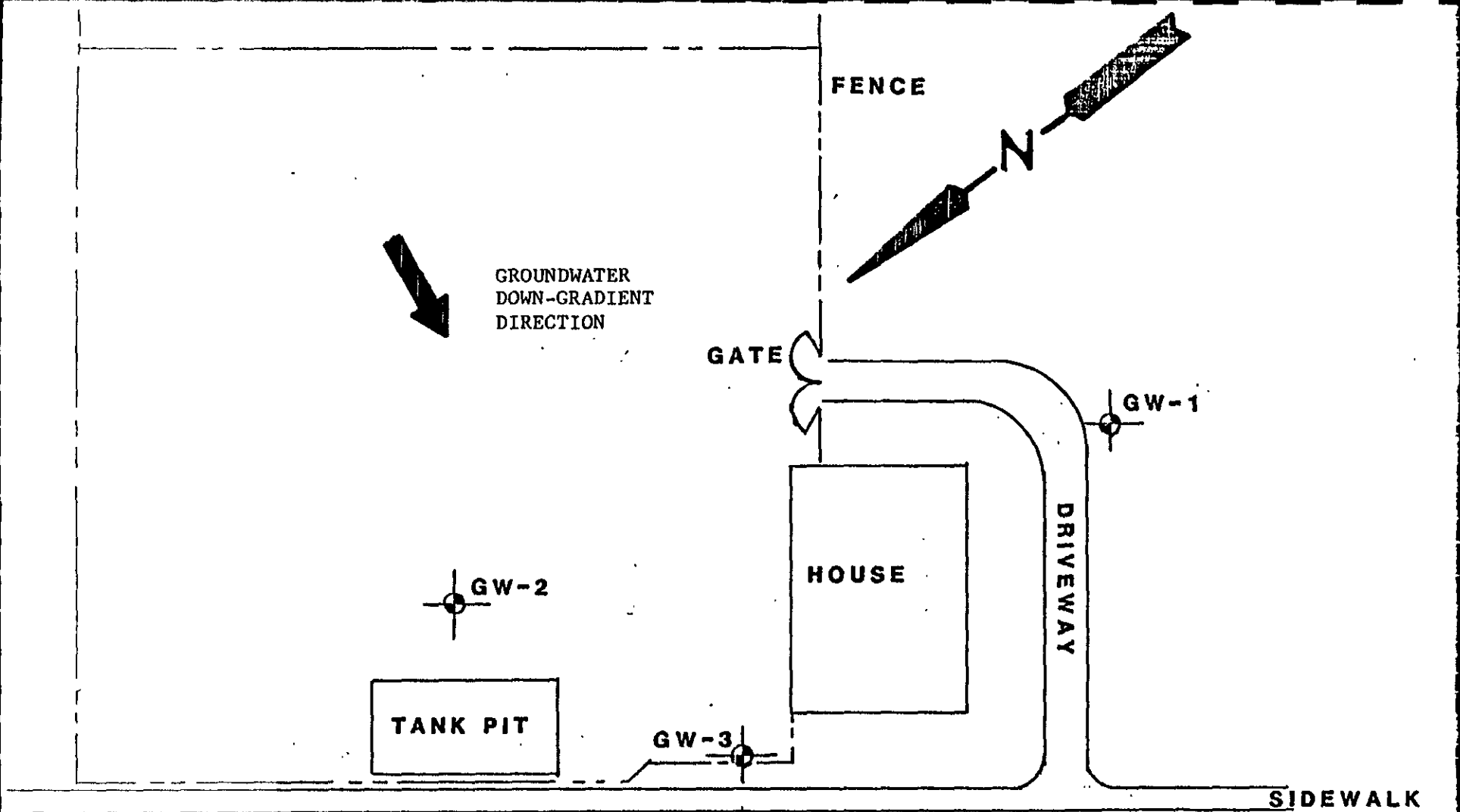
RELATIVE GROUNDWATER ELLEVATIONS  
 342-105th Avenue  
 Oakland, California

Project No. 0389060.01


Date: 3-13-90

Plate

**3**



105th AVENUE

 GROUNDWATER MONITORING WELL

SCALE: 1" = 30'



**SCS ENGINEERS**

STEARNS, CONRAD AND SCHMIDT  
CONSULTING ENGINEERS, INC.

6761-D SIERRA COURT  
DUBLIN, CA 94568

LOCAL GROUNDWATER DOWN-GRADIENT DIRECTION  
342-105th AVENUE  
OAKLAND, CALIFORNIA

Project No. 0389060.01

Date: 3-13-90

Plate

4

SJV Consultants sampled the two monitoring wells, in August, <sup>1991</sup>~~1992~~ for the same constituents and analytical results indicated MW-1 had 63 ppb TPH(g) "based on a discrete peak which are not indicative of gasoline" and MW-3 was ND (See Appendix III).

On October 15, 1991 SJV Consultants sampled the two wells and analytical results indicate that MW-3 had 1.1 ppm of Oil and Grease and ND in all other constituents whereas MW-1 was ND in all constituents (See Appendix III). The well sampling, the first part of July, 1992 was incomplete. (For all groundwater analyses see Table 1).

### Regional Geology

The elevation of the site is approximately 46 feet above sea level and the ground surface slopes very gently westward. Geologic mapping of unconsolidated deposits in the site region (USGS MF Map 429, Helley, Lajoie and Burke, 1972) shows the site as situated on the distal edge of a younger (Holocene age) alluvial fan deposits derived from the hills to the east and northeast. The sediment size decreases westward toward the bay and at the site would consist primarily of clays and clayey silts. Geological mapping of the area (D. H. Radbruch, USGS Geologic Quadrangle Map of the Oakland East Quadrangle, California, 1969) indicate that the site consists of Quaternary undifferentiated deposits.

San Leandro Creek forms the western boundary of the area which is juxtaposed with the Nimitz Freeway (US 880). San Leandro Creek flows northwesterly into San Leandro channel and enters into San Leandro Bay adjacent to "Arrowhead Marsh".

TABLE I

Summary, Groundwater Analyses

	<u>8015(D)</u>	<u>8015(G)</u>	<u>625</u>	<u>503E</u> Of G	<u>BTX&amp;E</u>
<u>SCS Eng. (3-19-90)</u>					
GW-1	ND	-	ND	-	
GW-2	ND	-	ND	-	
GW-3	ND	-	75(1)	ND	
<u>SCS Eng. (4-4-90)</u>					
GW-3	ND	-	-	ND	
<u>SJV Cons. (4-21-91)</u>					
GW-1	ND	ND	ND	ND	ND
GW-3	ND	ND	ND	ND	ND
<u>SJV Cons. (8-12-91)</u>					
GW-1	ND	63		ND	
GW-3	ND	ND		ND	
<u>SJV Cons. (10-22-91)</u>					
GW-1	ND	ND		1.1	ND
GW-3	ND	ND		ND	ND

(1) Bis(2-ethylhexyl)phthalate

## Discussion

Verls' Construction applied for a permit to destroy Monitoring Well No.2 on 8-31-90 due to excavation of contaminated soil adjacent to the well.

SJV Consultants went to the site on July 2, 1992 to perform water sampling and reaching the site it was noted that the external locks had been removed from the above ground steel well protection devices and the internal locks and plugs had been removed. Inspection indicated that both existing wells had been vandalized by the introduction of concrete and rock particles into the casing. MW-1 was filled to about three feet from the top of the casing and MW-3 was filled to about 5 feet from the top of the casing. Efforts were made to go around the concrete pieces but no entry was possible. This situation was discussed with Mr. Leon Mayer, owner of Mayer Properties, Inc., and a telephone discussion was held with Mr. Barney Chan of the Alameda County Health Services. Agreement was reached to file a comprehensive report outlining the past data and the fact that a gradient had been established for the groundwater flow direction. Also it should be noted that the well MW-2 had been located upgradient from the former tank site.

Alameda County Health Services has requested an off site groundwater monitoring well in a downgradient direction. This decision is still under advisement by Mayer Properties, Inc

Recommendations

Previous correspondence with the Alameda County Health Services has indicated that no additional remediation be accomplished as regards the soil contamination problem that previously existed. The groundwater monitoring program was the only remaining item for site closure. It is the opinion of SJV Consultants that the groundwater monitoring program be considered finalized and that a variance be granted for the completion of the last quarterly monitoring. This request is prompted by the pending issuance of funds for the construction of multiple family low cost housing.

Off site investigations will be required to determine the possibility of contamination of the soil and/or groundwater in a downgradient direction. It is requested that this NOT impact the closure of the subject site so the monies can be released to complete the low cost housing project for the City of Oakland.

APPENDIX I

CTTS Report on Soil Sampling

February 20, 1990  
File No. 90-1

Mr. Verl Rothlisberger  
Verl's Construction  
753 Peralta Ave.  
San Leandro, California 94577

Subject: Soil Sampling of January 18, 1990  
342 - 105th Avenue, Oakland, Ca.

Dear Verl:

Enclosed are the results of the ten soil samples collected by Lisa Polos of CTTs, Inc. (Toxic Technology Services) on January 18, 1990.

The samples collected were from under the product pipeline leading from the underground tank to the boiler, from the tank excavation itself, from the excavation around the tank pit and from the pile of topsoil.

In summary, the soil in the tank pit is still quite laden with heavy petroleum hydrocarbons. The excavation around the pit also has petroleum hydrocarbon contamination indicating that this excavation did not encompass the contamination plume. The pipeline shows appreciable contamination from 40' -60' along the pipeline. The topsoil has minor petroleum hydrocarbon contamination and at this point in time, should not be used as fill.

The data thus far indicates two situations. The first is the tank pit itself. The data indicates that the area is heavily contaminated and probably the most economical and less time consuming remediation would be to excavate and haul the highly contaminated material away to a properly licensed disposal facility.

The second situation is the less contaminated soil of the excavation by the tank pit, the pipeline and the topsoil. This soil could feasibly be treated by bioremediation, but could take considerable time. With approval from the local and state agencies, this process or some other appropriate treatment, should be started as soon as possible.

In the meantime, no further excavation should take place until the groundwater quality is determined. With groundwater being at a shallow depth, it is likely that not only the groundwater is contaminated, but is contributing to the contamination of the soil in the saturated zone.

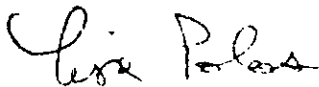


Table 1 presents the locations of soil samples collected. Appendix A presents the laboratory results. Analytical work was performed by TMA/Norcal in Richmond, a state certified hazardous waste laboratory.

All samples were collected in brass tubes, with the ends covered with aluminum foil and plastic caps. Samples were placed on ice and delivered on January 18, 1990 to TMA/Norcal.

In the event that you have questions, I can be reached at (415) 799-1140.

Sincerely,



Lisa A. Polos, REA  
Senior Scientist  
Toxic Technology Services  
CTTS, Inc.

Enclosures

TABLE 1

SAMPLING LOCATIONS  
342 - 105TH AVENUE, OAKLAND

JANUARY 18, 1990

Samples 1-4 are from under the product pipeline leading from the tank to the boiler. Samples were collected at an approximate depth of 24" below grade.

1. At beginning of pipeline; 61' from northeast fence
2. 20' along pipeline; 58' from northeast fence
3. 40' along pipeline; 55' from northeast fence
4. 60' end of pipeline; 51' from northeast fence
5. Tank pit bottom; depth of 9'9"; 6' from sidewalk; 80' from northeast fence corner

Samples 6-8 are from the excavation on the east side of the tank pit.

6. Sidewall; depth of 7'6"; 20' from sidewalk; 41' from northeast fence corner
7. Excavation bottom; depth of 8'; 20' from sidewalk; 70' from northeast fence corner
8. Sidewall; depth of 7'6"; 20' from sidewalk; 80' from northeast fence corner

Samples 9 & 10 were taken from the pile of topsoil located on the north side of the house. Samples were collected by placing soil in a brass tube with a trowel, every five feet along the pile, starting at the northwest end. Excavation personnel indicated that the top of the pile represented soil that was at an approximate depth of 5' below grade.

9. Composite top soil, 0'-30' along the pile
10. Composite top soil, 35'-70' along the pile

Arrived 1/19/90  
 Stored in R2 N

Thermo Analytical Inc.  
**CHAIN OF CUSTODY RECORD**

NO. 1 PROJECT NAME 105th Ave  
 S: (Signature) (465) 799-1140  
Lisa A. Polos  
 Report to:  
Lisa Polos  
PO Box 515  
Redwood Ct 94572  
(465) 799-1140

NO. OF CONTAINERS  
 ANALYSES  
 CAN 17 METALS  
 8270  
 8080  
 TPH-Diesel  
 TPH-GAS  
 BTEX  
 Total Oil & Grease  
 (Petroleum)

REMARKS  
Normal Turnaround

DATE	TIME	COMP.	GRAB	STATION LOCATION	CAN 17 METALS	8270	8080	TPH-Diesel	TPH-GAS	BTEX	Total Oil & Grease (Petroleum)	REMARKS
1/19/90			X	0' at excavation			X	X	X	X		
			X	20' under pipe			X	X	X	X		
			X	40' under pipe			X	X	X	X		added 1/24 per h.p.
			X	60' end			X	X	X	X		
			X	tank pit bottom	X	X	X	X	X	X		added 1/22 per h.p. see dilution
			X	sidewall 41'			X	X	X	X		
			X	excav. bottom			X	X	X	X		
			X	sidewall 80'			X	X	X	X		
		X		top soil 0'-30'	X	X	X	X	X	X		
		X		top soil 35'-70'	X	X	X	X	X	X		

Released by: (Signature) <u>Lisa A. Polos</u>	Date / Time <u>1/19/90 17:45</u>	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Released by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Released by: (Signature)	Date / Time	Received for Laboratory by: (Signature) <u>D. King</u>	Date / Time <u>1/20/90 17:55</u>	Remarks <u>Bill: Gary Tompkins &amp; Assoc. 1989 A Santa Rita Rd. Suite 365 Folsom, CA 95666</u>	

**EPA METHOD 8080  
TARGET ANALYTE RESULTS**

Client: GARY TOMPKINS ASSO.  
 Client Sample ID: #10TOPS.35'-70'  
 TMA/Normal SAMPLE ID: 5937-1-10  
 Extract. Method: SOXHLET

Date Received: 1/18/90  
 Date Extracted: 1/24/90  
 Date Analyzed: 1/30/90

CAS No	COMPOUND	RESULTS (ug/Kg)	DETECTION LIMITS (ug/Kg)
319-84-6	alpha-BHC	< 8.0	8.0
319-85-7	beta-BHC	< 8.0	8.0
319-86-8	delta-BHC	< 8.0	8.0
18-89-9	gamma-BHC(Lindane)	< 8.0	8.0
76-44-8	Heptachlor	< 8.0	8.0
309-100-2	Aldrin	< 8.0	8.0
1024-57-2	Heptachlor Epoxide	< 8.0	8.0
959-93-8	Endosulfan I	< 8.0	8.0
60-57-1	Dieldrin	< 16.0	16.0
72-55-9	4,4'-DDE	< 16.0	16.0
72-20-6	Endrin	< 16.0	16.0
34213-05-9	Endosulfan II	< 16.0	16.0
72-54-8	4,4'-DDD	< 16.0	16.0
1031-07-8	Endosulfan sulfate	< 16.0	16.0
50-29-3	4,4'-DDT	< 16.0	16.0
92-43-1	Methoxychlor	< 80.0	80.0
55494-70-5	Endrin ketone	< 16.0	16.0
5102-71-9	alpha-Chlordane	< 80.0	80.0
5103-74-2	gamma-Chlordane	< 80.0	80.0
57-74-9	Technical Chlordane	< 80.0	80.0
8001-35-2	Toxaphene	< 160.0	160.0
42974-11-2	Aroclor-1016	< 80.0	80.0
11104-28-2	Aroclor-1221	< 80.0	80.0
11141-16-5	Aroclor-1232	< 80.0	80.0
53469-21-9	Aroclor-1242	< 80.0	80.0
42672-23-6	Aroclor-1248	< 80.0	80.0
11847-86-1	Aroclor-1254	< 160.0	160.0
11895-82-5	Aroclor-1260	< 160.0	160.0

*John S. Head*  
 Analyst

*Neil Jones*  
 Data Release Authorized By

# EPA METHOD 8080 TARGET ANALYTE RESULTS

Client: MARY TOMPKINS ASSO.  
Client Sample ID: #9TOPSOIL01-301  
TMA Number: CAMPLE ID: 6937-1-9  
Extraction Method: SOXHLET

Date Received: 1/18/90  
Date Extracted: 1/24/90  
Date Analyzed: 1/30/90

CAS No.	COMPOUND	RESULTS (ug/Kg)	DETECTION LIMITS (ug/Kg)
118-84-6	alpha-BHC	< 8.0	8.0
319-84-7	beta-BHC	< 8.0	8.0
317-84-5	delta-BHC	< 8.0	8.0
133-43-9	gamma-BHC(Lindane)	< 8.0	8.0
76-44-6	Heptachlor	< 8.0	8.0
109-86-2	Aldrin	< 8.0	8.0
1034-77-3	Heptachlor Epoxide	< 8.0	8.0
959-99-0	Endosulfan I	< 8.0	8.0
60-57-1	Dieldrin	< 16.0	16.0
72-51-1	4,4'-DDE	< 16.0	16.0
72-20-2	Endrin	< 16.0	16.0
1521-61-9	Endosulfan II	< 16.0	16.0
72-52-1	4,4'-DDD	< 16.0	16.0
1031-77-0	Endosulfan sulfate	< 16.0	16.0
50-12-9	4,4'-DDT	< 16.0	16.0
72-43-5	Methoxychlor	< 80.0	80.0
134-270-3	Endrin ketone	< 16.0	16.0
519-72-7	alpha-Chlordane	< 80.0	80.0
5101-74-1	gamma-Chlordane	< 80.0	80.0
52-74-7	Technical Chlordane	< 80.0	80.0
8801-85-2	Toxaphene	< 160.0	160.0
12674-11-2	Aroclor-1016	< 80.0	80.0
11164-28-1	Aroclor-1221	< 80.0	80.0
11141-16-5	Aroclor-1232	< 80.0	80.0
13467-21-9	Aroclor-1242	< 80.0	80.0
12672-29-6	Aroclor-1248	< 80.0	80.0
11097-69-1	Aroclor-1254	< 160.0	160.0
11096-62-5	Aroclor-1260	< 160.0	160.0

*[Signature]*

*[Signature]*  
Data Release Authorized By

**EPA METHOD 8080  
TARGET ANALYTE RESULTS**

Client: LARRY TOMPKINS ASSO.  
 Client Sample ID: #5TANKPITBOTTOM  
 TMA/Normal SAMPLE ID: 6937-1-5  
 Extract Method: SOXHLET

Date Received: 1/18/90  
 Date Extracted: 1/24/90  
 Date Analyzed: 1/30/90

CAS NO	COMPOUND	SOIL RESULTS (ug/Kg)	SOIL DETECTION LIMITS (ug/Kg)
319-34-6	alpha-BHC	< 40.0	40.0
319-35-7	beta-BHC	< 40.0	40.0
319-36-0	delta-BHC	< 40.0	40.0
53-17-9	gamma-BHC(Lindane)	< 40.0	40.0
76-44-8	Heptachlor	< 40.0	40.0
309-10-2	Aldrin	< 40.0	40.0
1024-57-3	Heptachlor Epoxide	< 40.0	40.0
959-42-8	Endosulfan I	< 40.0	40.0
60-57-1	Dieldrin	< 80.0	80.0
70-55-9	4,4'-DDE	< 80.0	80.0
72-26-8	Endrin	< 80.0	80.0
3021-65-4	Endosulfan II	< 80.0	80.0
72-54-8	4,4'-DDD	< 80.0	80.0
1031-07-8	Endosulfan sulfate	< 80.0	80.0
50-29-5	4,4'-DDT	< 80.0	80.0
72-43-4	Methoxychlor	92.0	400.0
53494-70-1	Endrin ketone	< 80.0	80.0
5103-71-1	alpha-Chlordane	< 400.0	400.0
5105-74-2	gamma-Chlordane	< 400.0	400.0
57-74-9	Technical Chlordane	< 400.0	400.0
2051-55-1	Toxaphene	< 800.0	600.0
12674-11-2	Aroclor-1010	< 400.0	400.0
11194-26-1	Aroclor-1221	< 400.0	400.0
11141-16-5	Aroclor-1232	< 400.0	400.0
53469-21-9	Aroclor-1242	< 400.0	400.0
12672-23-6	Aroclor-1248	< 400.0	400.0
11197-09-1	Aroclor-1254	< 800.0	600.0
11196-07-4	Aroclor-1260	< 800.0	800.0

ALL VALUES ARE LOWER THAN DETECTION LIMIT.

*John B. ...*

*Keith Jones*  
 Data Release Authorized By



ANALYTICAL REPORT FOR SAMPLE No. 6937-1-9

Page 2 of 3

EPA METHOD 8270  
TARGET ANALYTE RESULTS

DATE: 10/19/83 #9 TOPSOIL

COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
pentachlorophenol	ND	3300
phenanthrene	16 J	660
anthracene	5 J	660
di-n-butyl phthalate	13 J	660
fluoranthene	18 J	660
pyrene	24 J	660
benzidine	ND	1000
benzyl-butylphthalate	ND	660
bis(2-ethylhexyl)phthalate	28 J, B	660
benzo(a)anthracene	ND	660
chrysene	ND	660
3,3-dichlorobenzidine	ND	1300
di-n-octylphthalate	ND	660
benzo(b)fluoranthene	22 J	660
benzo(k)fluoranthene	30 J	660
benzo(a)pyrene	ND	660
indeno(1,2,3-cd)pyrene	ND	660
dibenzo(a,h)anthracene	ND	660
benzo(ghi)perylene	ND	660

See footnotes on page 3

*David Jones*  
Analyst

*Alan A. Manning*  
Reviewer

*David W. Sherman*  
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ANALYTICAL REPORT FOR SAMPLE No. 6937-1-9

Page 1 of 3

EPA METHOD B270  
TARGET ANALYTE RESULTS

Sample ID 49 TOPSOIL Client GARY TOMPKINS & ASSOCIATES

Date Extracted 01/29/90 Date of Analysis 01/31/90

NO Norcal ID 6937-1

Comp. No.	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
102-95-1	N-nitrosodimethylamine	ND	1000
111-44-4	phenol	ND	660
111-44-4	bis(2-chloroethyl)ether	ND	660
111-44-4	2-chlorophenol	ND	660
111-44-4	1,3-dichlorobenzene	ND	660
111-44-4	1,4-dichlorobenzene	ND	660
111-44-4	1,2-dichlorobenzene	ND	660
111-44-4	bis(2-chloroisopropyl)ether	ND	660
111-44-4	N-nitrosodi-n-propylamine	ND	660
111-44-4	hexachloroethane	ND	660
111-44-4	nitrobenzene	ND	660
111-44-4	isophorone	ND	660
111-44-4	2-nitrophenol	ND	660
111-44-4	2,4-dimethylphenol	ND	660
111-44-4	bis(2-chloroethoxy)methane	ND	660
111-44-4	2,4-dichlorophenol	ND	660
111-44-4	1,2,4-trichlorobenzene	ND	660
111-44-4	naphthalene	ND	660
111-44-4	hexachlorobutadiene	ND	660
111-44-4	4-chloro-3-methylphenol	ND	1300
111-44-4	hexachlorocyclopentadiene	ND	660
111-44-4	2,4,6-trichlorophenol	ND	660
111-44-4	2-chloronaphthalene	ND	660
111-44-4	dimethyl phthalate	ND	660
111-44-4	2,6-dinitrotoluene	ND	660
111-44-4	acenaphthylene	ND	660
111-44-4	acenaphthene	ND	660
111-44-4	2,4-dinitrophenol	ND	3300
111-44-4	4-nitrophenol	ND	3300
111-44-4	2,4-dinitrotoluene	ND	660
111-44-4	diethyl phthalate	ND	660
111-44-4	chlorophenyl-phenylether	ND	660
111-44-4	fluorene	ND	660
111-44-4	2-methyl-4,6-dinitrophenol	ND	3300
111-44-4	N-nitrosodiphenylamine	ND	660
111-44-4	chlorophenyl-phenylether	ND	660
111-44-4	hexachlorobenzene	ND	660



ANALYTICAL REPORT FOR SAMPLE No. 6937-1-10

Page 2 of 3

EPA METHOD 8270  
TARGET ANALYTE RESULTS

Client Sample ID #10 TOPSOIL

Lab. No.	COMPOUND	METHOD DETECTION	
		RESULTS (ug/kg)	LIMITS (MDL) (ug/kg)
87-66-1	pentachloropheni	ND	3300
85-01-3	phenanthrene	12 J	660
120-12-7	anthracene	ND	660
84 74-2	di-n-butyl phthalate	15 J	660
208-44-0	fluoranthene	8 J	660
129-01-7	pyrene	10 J	660
93-87-5	benzidine	ND	1000
135-68-7	benzyl-butylphthalate	ND	660
117-81-7	bis(2-ethylhexyl)phthalate	47 J, B	660
55-55-3	benzo(a)anthracene	ND	660
218-01-9	chrysene	ND	660
91 94-1	3,3-dichlorobenzidine	ND	1300
117-84-0	di-n-octylphthalate	ND	660
205-44-0	benzo(b)fluoroanthene	ND	660
207-08-9	benzo(k)fluoranthene	ND	660
50-12-6	benzo(a)pyrene	ND	660
193-14-5	indeno(1,2,3-cd)pyrene	ND	660
53-70-7	dibenzo(a,h)anthracene	ND	660
191 24-0	benzo(ghi)perylene	ND	660

See footnotes on page 3

Aud Jones  
Analyst

Eileen A Manning  
REVIEWER

Samuel S. Sharma  
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ANALYTICAL REPORT FOR SAMPLE No. 6937-1-10

Page 1 of 3

EPA METHOD 8270  
TARGET ANALYTE RESULTS

Client Sample ID #10 TOPSOIL Client GARY TOMPKINS & ASSOCIATES

File # 6937-1 Date Extracted 01/29/90 Date of Analysis 01/31/90

IMA report ID 6937-1

COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
N-nitrosodimethylamine	ND	1000
phenol	ND	660
bis(2-chloroethyl)ether	ND	660
2-chlorophenol	ND	660
1,3-dichlorobenzene	ND	660
1,4-dichlorobenzene	ND	660
1,2-dichlorobenzene	ND	660
(2-chloroisopropyl)ether	ND	660
N-nitrosodi-n-propylamine	ND	660
hexachloroethane	ND	660
nitrobenzene	ND	660
isophorone	ND	660
2-nitrophenol	ND	660
2,4-dimethylphenol	ND	660
bis(2-chloroethoxy)methane	ND	660
2,4-dichlorophenol	ND	660
1,2,4-trichlorobenzene	ND	660
naphthalene	13 J	660
hexachlorobutadiene	ND	660
4-chloro-3-methylphenol	ND	1300
hexachlorocyclopentadiene	ND	660
2,4,4-trichlorophenol	ND	660
2-chloronaphthalene	ND	660
dimethyl phthalate	ND	660
2,6-dinitrotoluene	ND	660
acenaphthylene	ND	660
acenaphthene	ND	660
2,4-dinitrophenol	ND	3300
4-nitrophenol	ND	3300
2,4-dinitrotoluene	ND	660
diethyl phthalate	ND	660
phenyl phenyl ether	ND	660
1,2,3-trichlorobenzene	ND	660
1,4,6-dinitrophenol	ND	3300
N-nitrosodipropylamine	ND	660
propyl phenyl ether	ND	660
hexachlorocyclopentadiene	ND	660



ANALYTICAL REPORT FOR SAMPLE No. 6937-1-5

Page 2 of 3

EPA METHOD 8270  
TARGET ANALYTE RESULTS

Client Sample ID #5 TANK PIT BTM

Client Sample ID	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
87-88-5	pentachlorophenol	ND	3300
88-91-8	phenanthrene	4830	660
120-12-7	anthracene	794	660
84-76-1	di-n-butyl phthalate	ND	660
206-44-0	fluoranthene	ND	660
129-00-0	pyrene	1110	660
92-87-5	benzidine	ND	1000
85-68-7	benzyl-butylphthalate	ND	660
117-81-7	di-(2-ethylhexyl)phthalate	ND	660
56-55-3	benzo(a)anthracene	520 J	660
218-61-5	chrysene	587 J	660
91-94-1	3,3-dichlorobenzidine	ND	1300
117-84-0	di-n-octylphthalate	ND	660
206-79-2	benzo(b)fluoroanthene	ND	660
117-06-9	benzo(k)fluoranthene	ND	660
50-32-8	benzo(a)pyrene	ND	660
197-79-9	indeno(1,2,3-cd)pyrene	ND	660
53-70-1	dibenzo(a,h)anthracene	ND	660
191-29-2	benzo(ghi)perylene	ND	660

See footnotes on page 3

*Mark Jones*  
\_\_\_\_\_  
Analyst

*Vileen A Manning*  
\_\_\_\_\_  
Analyst

*Paul J. Hammer*  
\_\_\_\_\_  
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ANALYTICAL REPORT FOR SAMPLE No. 6937-1-5

Page 1 of 3

EPA METHOD 8270  
TARGET ANALYTE RESULTS

Client Sample ID #5 TANK PIT BIM Client GARY TOMPKINS & ASSOCIATES

File # 6937-1-5 Date Extracted 01/29/90 Date of Analysis 01/31/90

UIC/Job ID 6937-1

UIC/Job ID	COMPOUND	RESULTS (ug/Kg)*	METHOD DETECTION LIMITS (MDL) (ug/Kg)
6937-1-5	N-nitrosodimethylamine	ND	1000
106-75-1	phenol	ND	660
111-44-1	di-(2-chloroethyl)ether	ND	660
95-1-7-6	2-chlorophenol	ND	660
541-72-1	1,3-dichlorobenzene	ND	660
106-46-1	1,4-dichlorobenzene	ND	660
95-1-7-1	1,2-dichlorobenzene	ND	660
376-18-2	di-(2-chloroisopropyl)ether	ND	660
621-84-1	N-nitrosodi-n-propylamine	ND	660
67-43-1	hexachloroethane	ND	660
78-95-2	nitrobenzene	ND	660
78-10-1	isophorone	ND	660
63-72-8	2-nitrophenol	ND	660
106-72-9	2,4-dimethylphenol	ND	660
110-82-7	di-(2-chloroethoxy)methane	ND	660
119-84-6	2,4-dichlorophenol	ND	660
120-81-1	1,2,4-trichlorobenzene	ND	660
91-20-3	naphthalene	3899	660
67-60-3	hexachlorobutadiene	ND	660
59-50-1	4-chloro-3-methylphenol	ND	1300
17-42-4	trichlorocyclopentadiene	ND	660
130-08-1	2,4,6-trichlorophenol	ND	660
91-07-1	2-chloronaphthalene	ND	660
101-10-1	dimethyl phthalate	ND	660
605-01-7	2,6-dinitrotoluene	ND	660
101-02-1	acenaphthylene	ND	660
62-50-9	acenaphthene	1022	660
51-28-5	2,4-dinitrophenol	ND	3300
100-02-1	4-nitrophenol	ND	3300
121-14-1	2,4-dinitrotoluene	ND	660
78-66-1	diethyl phthalate	ND	660
101-08-1	1-chlorophenyl-pyridine	ND	660
101-09-1	2-chlorophenyl-pyridine	940	660
101-11-1	3-chlorophenyl-pyridine	ND	3300
101-12-1	4-chlorophenyl-pyridine	219	660
101-13-1	5-chlorophenyl-pyridine	ND	660
101-14-1	6-chlorophenyl-pyridine	ND	660







## ANALYTICAL REPORT FOR SAMPLE No. 6937-1-10

Page 1 of 3

EPA METHOD 8270  
TARGET ANALYTE RESULTS

Client Sample ID \_\_\_\_\_ Client GARY TOMPKINS &amp; ASSOCIATES

File ID BUCOR \_\_\_\_\_ Date Extracted 01/29/90 Date of Analysis \_\_\_\_\_

TMA/Norcal set ID 6937-1

Cas. No	COMPOUND	RESULT (ug/l)	REFERENCE CONCENTRATION (ug/l)
62-75-9	N-nitrosodimethylamine	ND	100
108-95-2	phenol	14.56	500
111-44-4	bis(2-chloroethyl) ether	ND	250
95-57-8	2-chlorophenol	ND	650
541-73-1	1,3-dichlorobenzene	ND	650
106-46-7	1,4-dichlorobenzene	ND	650
95-50-1	1,2-dichlorobenzene	ND	650
39638-320	bis(2-chloroisopropyl) ether	ND	650
621-64-7	N-nitrosodi-n-propylamine	ND	250
67-72-1	hexachloroethane	ND	650
98-95-3	nitrobenzene	ND	650
78-59-1	isophorone	ND	650
88-75-5	2-nitrophenol	ND	650
105-67-9	2,4-dimethylphenol	ND	650
11-91-1	bis(2-chloroethoxy)methane	ND	650
120-83-2	2,4-dichlorophenol	ND	650
120-82-1	1,2,4-trichlorobenzene	ND	650
91-20-3	naphthalene	ND	650
97-68-3	hexachlorobutadiene	ND	650
59-50-7	4-chloro-3-methylphenol	ND	1700
77-47-4	hexachlorocyclopentadiene	ND	650
88-06-2	2,4,6-trichlorophenol	ND	650
91-58-7	2-chloronaphthalene	ND	650
131-11-3	dimethyl phthalate	ND	650
606-20-2	2,6-dinitrotoluene	ND	650
208-96-8	acenaphthylene	ND	650
83-32-9	acenaphthene	ND	650
51-28-1	2,4-dinitrophenol	ND	650
100-02-7	4-nitrophenol	ND	650
101-14-2	2,4-dinitrotoluene	ND	650
84-86-2	diethyl phthalate	ND	650
100-71-1	4-chlorophenyl propyl ether	ND	650
84-17-7	1,1-dichloroethane	ND	650
174-17-1	methyl 4,6-dinitrophenyl ether	ND	650
84-70-6	N-nitrosodiphenylamine	ND	650
101-55-7	4-bromophenyl ethyl ether	ND	650
118-74-1	hexachlorocyclopentadiene	ND	650

EPA METHOD 8020  
 TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: #10TOPSOIL35-70  
 TMA/Norcal SAMPLE ID: 6937-1-10

Date Received: 1/18/90  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	37	5
100-41-4	ethylbenzene	72	5
108-38-3	xylene	79	15

G. Smith  
 Analyst

[Signature]  
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EPA METHOD 8020  
 TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: #7EXCAV BOTTOMS  
 TMA/Norcal SAMPLE ID: 6937-1-7

Date Received: 1/18/90  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	26	5
100-41-4	ethylbenzene	<5	5
106-38-3	xylenes	<15	15

C. W. Smith  
 Analyst

[Signature]  
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**EPA METHOD 8020  
TARGET ANALYTE RESULTS**

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: #66SIDEWALL7.5  
 TMA/Norcal SAMPLE ID: 6937-1-6

Date Received: 1/18/90  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	19	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylene	<15	15

G. W. Smith  
 Analyst

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**EPA METHOD 8020  
TARGET ANALYTE RESULTS**

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: #5 TANK BOTTOM  
 TMA/Norcal SAMPLE ID: 6937-1-5

Date Received: 1/18/90  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	17 *	5
100-41-4	ethylbenzene	22	5
108-38-3	xylenes	17	15

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C.D. Smith  
 Analyst

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EPA METHOD 8020  
 TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: #4 60'ENDPIPELN  
 TMA/Norcal SAMPLE ID: 6937-1-4

Date Received: 1/18/90  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS - DETECTION LIMITS	
		(ug/kg)	(ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	28	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylene	<15	15

C. Smith  
 Analyst

[Signature]  
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**EPA METHOD 8020  
TARGET ANALYTE RESULTS**

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: #2 20' PIPELINE  
 TMA/Norcal SAMPLE ID: 6937-1-2

Date Received: 1/18/90  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<u>&lt;5</u>	5
108-88-3	toluene	<u>37</u>	5
100-41-4	ethylbenzene	<u>&lt;5</u>	5
108-38-3	xylene	<u>&lt;15</u>	15

S. J. Smith  
 Analyst

[Signature]  
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EPA METHOD 8020  
 TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: #3 40' PIPELINE  
 TMA/Norcal SAMPLE ID: 6937-1-3

Date Received: 1/18/90  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS - DETECTION LIMITS	
		(ug/kg)	(ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	71	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylene	<15	15

C. Smith  
 Analyst

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EPA METHOD 8020  
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.  
Client Sample ID: #9TOPSOILO-30'  
TMA/Norcal SAMPLE ID: 6937-1-9

Date Received: 1/18/90  
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	25	5
108-88-3	toluene	34	5
100-41-4	ethylbenzene	25	5
108-38-3	xylenes	15	15

CD Smith  
Analyst

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EPA METHOD 8020  
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: #8SIDEWALL 7.5'  
 TMA/Norcal SAMPLE ID: 6937-1-8

Date Received: 1/18/90  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	18*	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

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C. Smith  
 Analyst

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EPA METHOD 8020  
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: #1 TANK O'EXCAV  
 TMA/Norcal SAMPLE ID: 6937-1-1

Date Received: 1/18/90  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS * DETECTION LIMITS	
		(ug/kg)	(ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	39	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

W. Smith  
 Analyst

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EPA METHOD 8020  
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: N. A.  
 TMA/Norcal SAMPLE ID: INSTRUMENTBLANK

Date Received: N. A.  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
106-88-3	toluene	<5	5
100-41-4	ethylbenzene	<5	5
106-38-3	xylene	<15	15

C. D. Smith  
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EPA METHOD 8020  
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.  
 Client Sample ID: N. A.  
 TMA/Norcal SAMPLE ID: METHOD BLANK

Date Received: N. A.  
 Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	18	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylene	<15	15

G. Smith  
Analyst

[Signature]  
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**Analysis Results Report**  
**Total Petroleum Hydrocarbons**  
**Soil Matrix**

Client: GARY TOMPKINS & ASSOC.  
 Sample Delivery Group: 1  
 Analysis/Method: MOD 8015 P & T

Date Received: 1/18/90  
 Date Analyzed: 1/23/90  
 Date Report: 1/30/90

TMA Sample ID	Client ID	Gasoline (ug/Kg)	Détection Limits (ug/Kg)
METHOD BLANK	N. A.	<10	10
6937-1-1	#1TANK 0'EXCAV	<10	10
6937-1-2	#2 20' PIPELINE	<10	10
6937-1-3	#3 40' PIPELINE	<10	10
6937-1-4	#4 60' ENDFIPE	<10	10
6937-1-5	#5TANKPITBOTTM	1100	10
6937-1-6	#6SIDEWALL7.5'	<10	10
6937-1-7	#7EXCAVBOTTM8'	<10	10
6937-1-8	#8SIDEWALL8.5'	<10	10
6937-1-9	#9TOPSOIL0-10	<10	10
6937-1-10	#10TOPSOIL10-20	<10	10

*G. South*  
 Analyst

*John R. ...*  
 Dist. ...

## TPH AS DIESEL ANAYSIS RESULTS REPORT

Lab Name: TMA/Norcal  
 Client: GARY TOMPKINS & ASSOCIATES  
 Matrix: soil

Date Received: 12 1-18-90  
 Date Analyzed: 1- 2-8-90

Analysis/Method: MOD-8015 FULX

TMA/Norcal ID	Client ID	Diesel (mg/kg)	Detection Limits (mg/kg)
6937-1-1	#1	<10 mg/kg	10 mg/kg
6937-1-2	#2	<10 mg/kg	10 mg/kg
6937-1-3	#3	11.2 mg/kg	10 mg/kg
6937-1-4	#4	4623 mg/kg	10 mg/kg
6937-1-5	#5	<10 mg/kg	10 mg/kg
6937-1-6	#6	62.8 mg/kg	10 mg/kg
6937-1-7	#7	<10 mg/kg	10 mg/kg
6937-1-8	#8	<10 mg/kg	10 mg/kg
6937-1-9	#9	<10 mg/kg	10 mg/kg
6937-1-10	#10	<10 mg/kg	10 mg/kg

*Renee Doherty*  
 Analyst

*[Signature]*  
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TMA/Norcal ID: 6937-1  
Page 4  
February 14, 1990

TABLE III

UNITS = mg/Kg

TMA/Norcal ID	Client ID	Petroleum * Hydrocarbons	Detection Limit
6937-1-1	0' at excav.	<70	70
6937-1-2	20' under pipe	<70	70
6937-1-3	40' under pipe	250	70
6937-1-4	60' end	160	70
6937-1-5	tank pit bottom	7300	70
6937-1-6	sidewall 41'	<70	70
6937-1-7	excav. bottom	970	70
6937-1-8	sidewall 80'	<70	70
6937-1-9	topsoil 0'- 30'	84	70
6937-1-10	topsoil 35'- 70'	170	70

\* EPA Method 9071, Oil & Grease including Petroleum Hydrocarbons.

TMA/Norcal ID: 6937-1

Page 3

February 14, 1990

TABLE II

TMA/Norcal ID:	6937-1-10	Detection	EPA
Client ID:	Topsoil 35'-70'	Limit	Method

UNITS: mg/Kg

Antimony	<30 *	30	6010
Arsenic	<10	10	7060
Barium	290	3	6010
Beryllium	<1	1	6010
Cadmium	<2 *	2	6010
Chromium	57	2	6010
Cobalt	17	3	6010
Copper	26	3	6010
Lead	26	7	6010
Mercury	<0.3	0.3	7471
Molybdenum	<2 *	2	6010
Nickel	84 *	7	6010
Selenium	<5	5	7740
Silver	<3	3	6010
Thallium	<30	30	6010
Vanadium	45	5	6010
Zinc	74	4	6010

\* Poor spike recovery indicates possible matrix interference.

TMA/Norcal ID: 6937-1

Page 2

February 14, 1990

TABLE I

---

TMA/Norcal ID:	6937-1-9	Detection	EPA
Client ID:	Topsoil 0'-30'	Limit	Method

---

UNITS: mg/Kg

---

Antimony	<30	30	6010
Arsenic	<1	1	7060
Barium	370	3	6010
Beryllium	<1	1	6010
Cadmium	<2	2	6010
Chromium	62	2	6010
Cobalt	14	3	6010
Copper	33	3	6010
Lead	22	7	6010
Mercury	<0.3	0.3	7471
Molybdenum	<2	2	6010
Nickel	64	7	6010
Selenium	<0.5	0.5	7740
Silver	<3	3	6010
Thallium	<30	30	6010
Vanadium	49	5	6010
Zinc	89	4	6010

---

APPENDIX II

SCS Engineers Reports

- 1.) Tank Removal
- 2.) Groundwater Wells

**SCS ENGINEERS**

March 19, 1990  
File No. 0389060.01

Mr. Verl Rothlisberger  
Verl's Construction, Inc.  
753 Peralta Avenue  
San Leandro, California 94577

Subject: Groundwater Investigation  
342 - 105th Avenue  
Oakland, California


Dear Mr. Rothlisberger:

SCS Engineers is pleased to present this report of the groundwater investigation performed at the site located at 342 - 105th Avenue in Oakland, California.

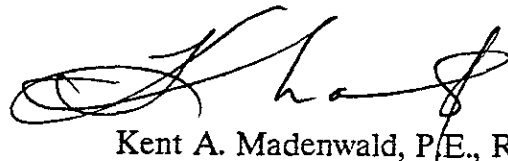
This report has been prepared specifically for Verl's Construction, Inc. with specific application to hazardous waste site investigations. The report has been prepared in accordance with the care and skill generally exercised by reputable professionals under similar circumstances, in this or similar localities. No warranties, either expressed or implied, are made to the advice presented. Verl's Construction, Inc. shall not use the report for any other purpose other than for which it was prepared.

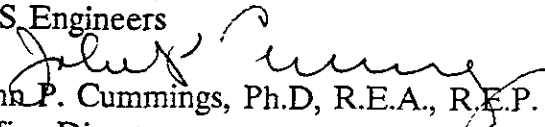
If you have any questions, please contact ~~either~~ of the undersigned at (415) 829-0661.

Sincerely,

  
D. Edward MacDaniel  
Associate Staff Geologist  
SCS Engineers

DEM/KAM/sar

  
Kent A. Madenwald, P.E., R.E.A., R.E.P.  
Project Manager  
SCS Engineers

  
John P. Cummings, Ph.D, R.E.A., R.E.P.  
Office Director  
SCS Engineers

## CONTENTS

I	Introduction .....
II.	Field Methods .....
III.	Soil and Groundwater Analyses .....
IV.	Conclusions .....
V.	Appendices .....
	A. Plates
	B. Permit, Driller's Reports, And Boring Logs
	C. Chain of Custody Forms, Laboratory Analyses Reports
	D. Well Development

## INTRODUCTION

SCS Engineers was retained by Veri's Construction, Inc. to perform a subsurface investigation of soil and groundwater subsequent to the removal of an underground storage tank removal at 342 - 105th Avenue in Oakland, California (see Plate 1, Appendix A). Three soil borings were made and groundwater monitoring wells were installed in the borings. Soil samples from the borings and a water sample from each well were sent to a State-certified laboratory and were analyzed for hydrocarbon contamination.

## II FIELD METHODS

On February 22 and February 23, 1990, Mr. Ed MacDaniel supervised the drilling of three borings at 342 - 105th Avenue in Oakland, California. Groundwater monitoring wells were installed in the borings. Plate 2 (Appendix A) is a site plan detailing the positions of the three monitoring wells. These wells were developed on February 23, February 26, and March 5, 1990.

Datum Exploration of Pittsburg, California performed the drilling and installation of the monitoring wells. Alameda County well permits were obtained on February 16, 1990. Copies of the well permit and driller's reports are enclosed in Appendix B.

### Soil Borings

Three soil borings were made to a depth of 25 feet using a CME 45 drilling unit with 8 1/2 inch augers and a HSN 8 inch bit and with 10 1/2 inch augers. Prior to the drilling of these wells, the auger sections were cleaned using hot water and steam to volatilize any remnant hydrocarbon contaminants that may have been present on the augers.

Soil samples were obtained at five foot intervals during the drilling of the borings. The samples were taken using two inch I.D. Spit Spoon Modified California Samplers loaded with brass sleeves. The samples forced into the brass sleeves were examined and then sealed with aluminum foil, plastic end caps and tape. They were then placed in cold storage for transport to a State-certified laboratory. A boring log for each well was recorded in the field during drilling and documents sample localities, subsurface sedimentology, depth to groundwater and well construction details. The boring logs are in Appendix B.

### Well Construction

The three monitoring wells, GW-1, GW-2, And GW-3, were constructed using four inch schedule 40 PVC flush jointed casing, blank and slotted sections. The bottom of each well was capped using four inch end caps. The annular space of the wells was filled with #3 Lonestar sand to a depth of one foot above the slotted casing sections. A foot of bentonite seal was placed on top of the sand. The remaining space was filled and sealed using cement grout. A forty-eight inch locking security riser was cemented into place above each well head. A waterproof expansion plug seals the upper well opening

## Well Development and Water Sampling

On February 23 and February 26, 1990, Mr. MacDaniel developed wells GW-1 and GW-2 using a submersible pump. Approximately 40 gallons from GW-1 and 35 gallons from GW-2 were purged and stored in 55 gallon drums which remained on-site pending water sample analyses. On February 26, Mr. MacDaniel attempted to develop GW-3. Due to an extremely slow recovery, it was not developed at the same time as the other wells. It was believed that the proper extremely stiff clay drilled through had smeared along the length of the boring, preventing the well from proper recovery. Testing and Technology (TAT) was contracted to perform a pump and surge technique to develop Well No. GW-3.

Monitoring well GW-3 was developed on March 6, 1990 by TAT (see Appendix D). Because of the low rate of recovery, clean fresh water was inserted into the well. Then the well was surged, breaking up the clay. The water and clay were then pumped out of the well. Approximately 520 gallons of water was pumped into and out of the well. This method had received prior approval from Alameda County Health Agency prior to beginning the development procedure.

Water samples were collected on February 26, February 27, February 28, and March 1, and March 8, 1990 using disposable bailers. For each well, the water samples were placed into 2-40 milliliter VOA's and two 1 liter amber jars or one 40 milliliter VOA and one 1 liter amber jar. The samples were labeled and placed in cold storage for shipment to a State-certified laboratory.

### Subsurface Conditions


Groundwater monitoring well one (GW-1) was drilled through a clay for 17 1/2 feet before encountering a very clay-rich sand. This sand extended to 23 feet below the surface at which point a sandy clay was found. This clay was present for rest of the well's depth.

GW-2 extends through a dark clay for 16 feet, which was followed by 22 feet of a clay-rich sand. From 22 feet to 25 feet below the surface, a silty clay was noticed.

GW-3 was drilled thorough a 15 1/2 foot section of clay which had a sand content that increased with depth. At 15 1/2 feet below the surface, a 6 1/2 foot layer of a clay-rich sand was drilled through. From 22 feet to 25 feet, a clay was noted.

### Surveying of Wells

On March 12, 1990, Mr. MacDaniel and Mr. Don McClenagan visited the site. Using surveying equipment, they determined the elevations of the well casings for GW-1, GW-2 and GW-3. As no benchmark from Caltrans or East Bay Municipal Utilities District was found, the relative elevations of the wells had to be determined at this time. It was assumed that the elevation of the well casing for GW-2 was 50 feet. The relative elevations of GW-1 and GW-2 were then determined based upon this assumption. The depth to the groundwater from the top of the well casing for each well was also determined. The relative elevations of the groundwater was then calculated for each well (see Plate 3 Appendix A). Using a geometric method, the down-gradient direction of the groundwater was determined. Plate 4 (Appendix A) depicts the down-gradient direction





of the groundwater. Table 1 organizes the data: water depth and the relative elevations of the well casings and groundwater.

### III SOIL AND WATER ANALYSES

The soil and water samples were sent a State-certified laboratory. The soil samples were to be analyzed using EPA method 8015 for diesel, EPA method 8270 for extractable organics, and method 503 E for total oil and grease. The water samples were analyzed using EPA method 8015 for diesel, EPA method 625 for extractable organics, and method 503E for total oil and grease. The results are summarized in Table 2. All of the results of the analyses and the chain of custody forms are in Appendix C.

### IV CONCLUSIONS

The levels of contamination in the soil and groundwater are below levels where any further action will be required. Because of this SCS Engineers recommends that no more soil need be excavated for remediation and that the groundwater will not have to be remediated.

TABLE 1  
GROUNDWATER DEPTHS AND RELATIVE ELEVATION  
OF WELL CASINGS AND GROUNDWATER (In Feet)

	<u>Groundwater Depth</u> (From Top of Casing)	<u>Relative Elevation</u> Top of Well Casing	Groundwater
GW-1	11.02	49.96	38.94
GW-2	10.41	50.00	39.59
GW-3	12.32	50.20	37.88

TABLE 2

ANALYTICAL RESULTS OF THE  
SOIL AND GROUNDWATER SAMPLES

*Listing compounds present*

Soil

Sample No.	8015-D	8270	
	Di-N-butylphthalate	Bis (2-ethylhexyl)phthalate	Di-N-octylphthalate
GW1-5	ND	710 ppb	1500 ppb
GW1-10	ND	11000 ppb	480 ppb
GW1-15	ND	12000 ppb	680 ppb
GW1-20	ND	5100 ppb	540 ppb
GW1-25	ND	100 ppb	3500 ppb
GW2-5	ND	470 ppb	140 ppb
GW2-10	ND	290 ppb	180 ppb
GW2-15	ND	240 ppb	3100 ppb
GW2-20	ND	5900 ppb	ND
GW2-25	ND	160 ppb	51 ppb
GW3-5	ND	460 ppb	670 ppb
GW3-10	ND	120 ppb	2600 ppb
GW3-15	ND	140 ppb	250 ppb
GW3-20	ND	580 ppb	780 ppb
GW3-25	ND	190 ppb	320 ppb
	503E		
GW1-5	ND		
GW1-10	ND		
GW1-15	ND		
GW1-20	ND		
GW1-25	ND		
GW2-5	ND		

ND = Not Detected

Detection Limits: 8015-Diesel - 1000 ppb  
 503 - 10 ppm  
 Di-N-butylphthalate - 20 ppb  
 Bis (2-ethylehhexyl)phthalate - 20  
 Di-N-octylphthalate - 30 ppb

TABLE 2 (cont'd)

Soil

Sample No.	503E
GW-10	ND
GW2-15	ND
GW2-20	ND
GW2-25	ND
GW3-5	ND
GW3-10	ND
GW3-15	ND
GW3-20	ND
GW3-25	ND

Detection Level: 503E - 10 ppm

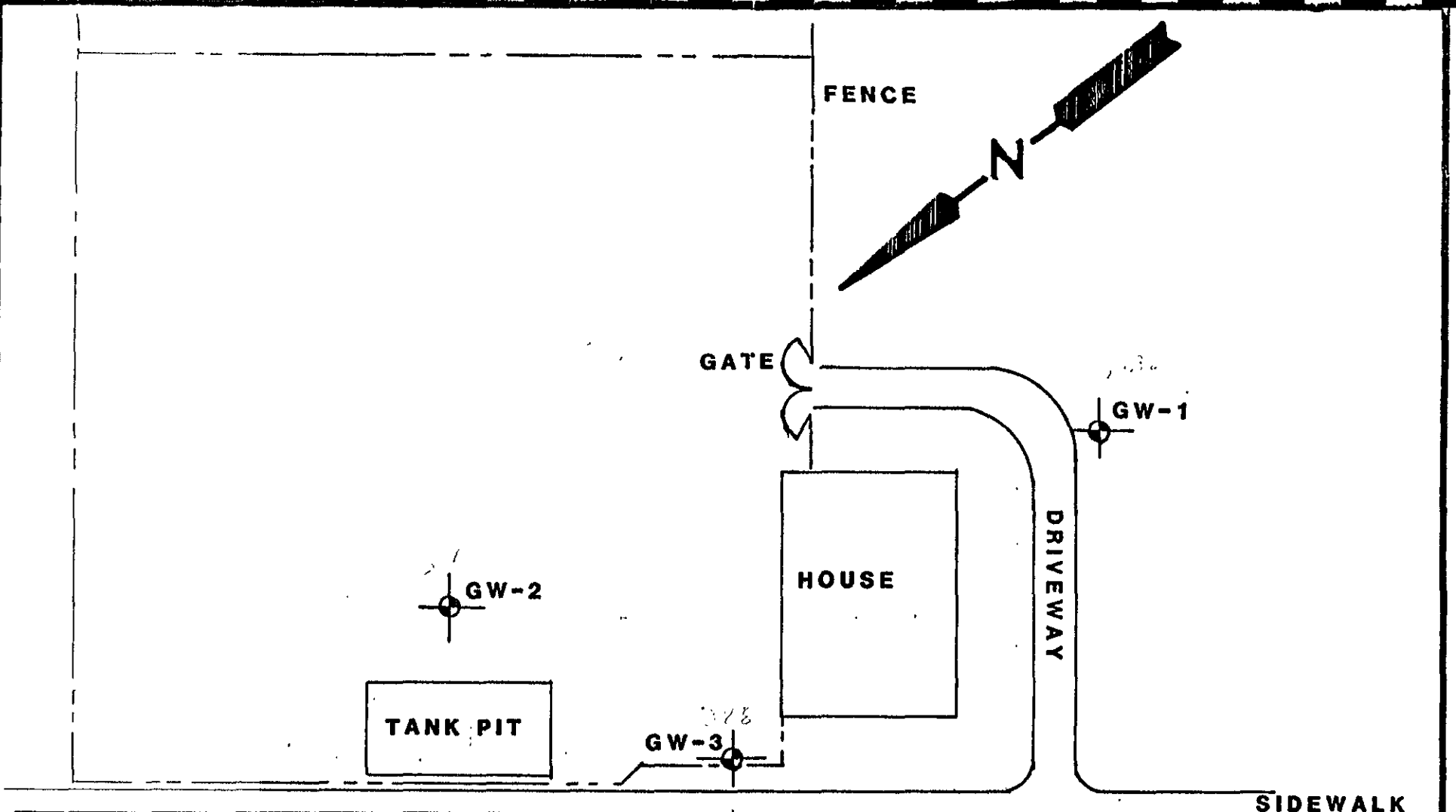
Water


	8015-D	625 Bis(2-ethylhexyl)phthalate	503E
GW1-1W	ND	ND	-
GW2-1W	ND	ND	-
GW3-1W	ND	75 ppb	ND

Detection Levels: 8015 - Diesel - 0.5 ppb  
Bis(2-ethylhexyl)phthalate - 50 ppb  
503E - 0.5 ppb

APPENDIX A

Plates




**GROUNDWATER MONITORING WELL**

SCALE: 1" = 30'



**SCS ENGINEERS**

STEARNS CONRAD AND SCHMIDT  
CONSULTING ENGINEERS, INC.

6761-D STEVENS COURT  
DUBLIN, CA 94568

**SITE PLAN**  
342-105th Avenue  
Oakland, California

Project No. 0389060.01

Date: 3-13-90

Plate

**2**

APPENDIX B

Well Permit  
Driller's Reports  
Boring Logs



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94586 (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

(1) LOCATION OF PROJECT 342 105th Avenue Oakland, Calif. (vacant lot)

PERMIT NUMBER 90120

LOCATION NUMBER

(2) CLIENT Name Ver's Construction Address 753 Aralta Phone 415 569-1234 City San Leandro Zip 94577

PERMIT CONDITIONS

Circled Permit Requirements Apply

(3) APPLICANT Name Don Mc Cleenan SCS Engineers Address 6761-D Sierra Ct Phone 415 829 0661 City San Ramon Dublin Zip 94568

(A) GENERAL

- 1. A permit application should be submitted so as arrive at the Zone 7 office five days prior proposed starting date. 2. Submit to Zone 7 within 60 days after complet of permitted work the original Department Water Resources Water Well Drillers Report equivalent for well projects, or drilling and location sketch for geotechnical projects. 3. Permit is void if project not begun within days of approval date.

(4) DESCRIPTION OF PROJECT Water Well Construction Geotechnical Investigation Cathodic Protection General Well Destruction Contamination X

(B) WATER WELLS, INCLUDING PIEZOMETERS

- 1. Minimum surface seal thickness is two inches cement grout placed by tremie. 2. Minimum seal depth is 30 feet for municipal industrial wells or 20 feet for domestic, irrigation, and monitoring wells unless a lesser depth is specially approved.

(5) PROPOSED WATER WELL USE Domestic Industrial Irrigation Municipal Monitoring X Other

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

(6) PROPOSED CONSTRUCTION Drilling Method: Mud Rotary Air Rotary Auger X Cable Other

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie. E. WELL DESTRUCTION. See attached.

DRILLER'S LICENSE NO. 480802

WELL PROJECTS Drill Hole Diameter 10.5 in. Maximum Casing Diameter 4 in. Depth 25 ft. Surface Seal Depth 5 ft. Number 3

GEOTECHNICAL PROJECTS Number of Borings Maximum Hole Diameter In. Depth ft.

(7) ESTIMATED STARTING DATE Feb 22, 1990 ESTIMATED COMPLETION DATE Feb 23, 1990

(8) I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

Approved Wyrton Hong Date: 16 Feb

APPLICANT'S Name: Don Mc Cleenan



# BORING LOG

Project Verl's - 105th Avenue  
 Location 342 - 105th Ave, Oakland  
 Job # 0389060.01  
 Geologist/Engineer Ed MacDaniel  
 Drill Agency Datum Exploration

Hole/Well # GW-1  
 Diameter of Drill Hole 8"  
 Total Depth of Hole 25'  
 Date Started 2/22/90  
 Date Completed 2/22/90

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
2  4  6  8  10  12  14  16  18  20  22					<p>Clay, silty, very dark gray (2.5Y, 2.5/0), moist, stiff, no petroleum odor, some dark brown patches</p> <p>Clay, w/ very fine grained sand, gray brown (10YR, 5/2), moist, no petroleum odor</p> <p>Clay, dark grayish brown (10YR, 4/2), moist, no petroleum odor</p> <p>Sand, very fine grained, clay rich, brown (7.5YR, 5/4), very moist, no petroleum odor</p>




# BORING LOG

Project <u>Verl's - 105th Avenue</u>	Hole/Well # <u>GW-2</u>
Location <u>342 - 105th Ave, Oakland</u>	Diameter of Drill Hole <u>10½"</u>
Job # <u>0389060.01</u>	Total Depth of Hole <u>25'</u>
Geologist/Engineer <u>Ed MacDaniel</u>	Date Started <u>2-22-90</u>
Drill Agency <u>Datum Exploration</u>	Date Completed <u>2-22-90</u>

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
2 4 6 8 10 12 14 16 18 20 22	<p>Portland Type I/II Cement</p> <p>Bentonite</p> <p>4" Solid PVC Casing</p> <p>4" Perforated PVC Casing</p> <p>#3 Sand</p>				<p>Clay, very dark brown (2.5 YR, 2.5/0), dry, white patches, no petroleum odor</p> <p>Clay, brown (7.5 YR, 5/2), gray patches, moist, no petroleum odor</p> <p>Clay, silty, brown (7.5 YR, 4/2), moist, no petroleum odor</p> <p>Sand, clay rich, brown (7.5 YR, 5/4), moist, no petroleum odor</p>

# BORING LOG

Project <u>Verl's - 105th Avenue</u>	Hole/Well # <u>GW-2</u>
Location <u>342 - 105th Ave, Oakland</u>	Diameter of Drill Hole <u>10½"</u>
Job # <u>0389060.01</u>	Total Depth of Hole <u>25'</u>
Geologist/Engineer <u>Ed MacDaniel</u>	Date Started <u>2-22-90</u>
Drill Agency <u>Datum Exploration</u>	Date Completed <u>2-22-90</u>

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
20			Z		
22					
24					
26	End Cap		Z		Clay, silty, gray (7.5 YR, 4/0), moist, no petroleum odor

# BORING LOG

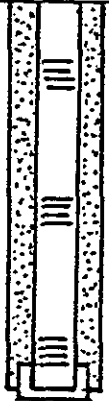


Project Verl'a - 105th Avenue  
 Location 342 - 105th Ave, Oakland  
 Job # 0389060.01  
 Geologist/Engineer Ed MacDaniel  
 Drill Agency Datum Exploration

Hole/Well # GW-3  
 Diameter of Drill Hole 10½"  
 Total Depth of Hole 25'  
 Date Started 2-23-90  
 Date Completed 2-23-90

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">2</div> <div style="margin-bottom: 10px;">4</div> <div style="margin-bottom: 10px;">6</div> <div style="margin-bottom: 10px;">8</div> <div style="margin-bottom: 10px;">10</div> <div style="margin-bottom: 10px;">12</div> <div style="margin-bottom: 10px;">14</div> <div style="margin-bottom: 10px;">16</div> <div style="margin-bottom: 10px;">18</div> <div style="margin-bottom: 10px;">20</div> <div style="margin-bottom: 10px;">22</div> </div>	<p style="position: absolute; top: 35%; left: 15%;">Portland Type I/II Cement</p> <p style="position: absolute; top: 35%; left: 35%;">4" Solid PVC Pipe</p> <p style="position: absolute; top: 47%; left: 15%;">Bentonite</p> <p style="position: absolute; top: 64%; left: 35%;">4" Perforated PVC Pipe</p> <p style="position: absolute; top: 72%; left: 15%;">#3 Sand</p>				<p>Clay, silty, very dark gray (2.5 YR, 3/0), w/ white streaks, dry, no petroleum odor</p> <p>Clay, sandy, grayish brown (10 YR, 5/2), moist, no petroleum odor</p> <p>Clay, sandy, grayish brown (10 YR, 5/2), moist, no petroleum odor</p> <p>Sand, clay rich, gray brown (10 YR, 5/2), moist, no petroleum odor</p>

# BORING LOG

Project <u>Verl's - 105th Avenue</u>	Hole/Well # <u>GW-3</u>
Location <u>342 - 105th Ave, Oakland</u>	Diameter of Drill Hole <u>10 1/2"</u>
Job # <u>0389060.01</u>	Total Depth of Hole <u>25'</u>
Geologist/Engineer <u>Ed MacDaniel</u>	Date Started <u>2-23-90</u>
Drill Agency <u>Datum Exploration</u>	Date Completed <u>2-23-90</u>

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
20    22    24    26	 <p style="text-align: center;">End Cap</p>		    		<p style="text-align: center;">Clay, dark gray brown (10YR,4/2), w/ medium gray and medium brown patches, moist, no petroleum odor</p>

APPENDIX III

SJV Consultants GW Sampling

REPORT ON SOIL AND WATER SAMPLING

105th Street Site  
Hayward, California

for

Mayer Properties, Inc.  
753 Peralta Avenue  
San Leandro, California 94577

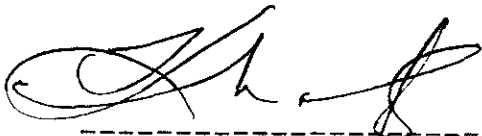
by

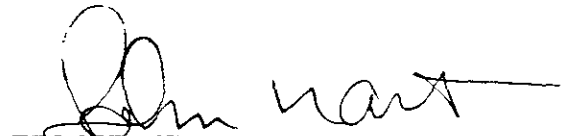
SJV Consultants  
P.O. Box 7418  
Fremont, California 94537

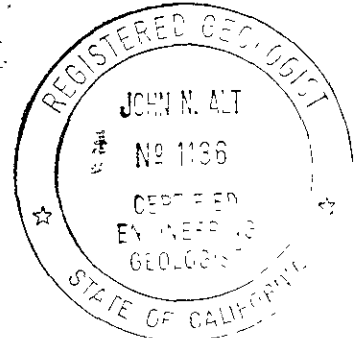
April 21, 1991

File No's.

0190002 and 0191006

  
-----  
Kent A Madenwald, PE, RG

  
-----  
John N. Alt, CEG 1136





## REPORT ON SOIL AND WATER SAMPLING

### Background

A waste oil tank was removed from the northern edge of the property and contaminated soil was found below and adjacent to the tank. Verli's Construction Co., performed some preliminary trenching and determined the approximate perimeter of the contaminant plume in the soil. Further work was accomplished by SCS Engineers when three (3) monitoring wells were installed and developed. Water samples indicated various degrees of contamination. In the effort to remediate the contaminated soil, monitoring well MW-3 was destroyed. The contaminated soil was removed from the excavation and is presently being bioremediated on the site. Clean soil, obtained from another part of the property was used as backfill for the excavated area.

The need for the present sampling event was per the requirements of the Alameda County Department of Health which wanted confirmation that the soil that was put into the excavation was clean. Also, the ACDH requested that the quarterly sampling event be initiated.

### Soil Sampling

Soil samples were collected at locations selected by Mr. Barney Chan, of the Alameda Department of Health (See Plate 1). A backhoe was used to dig to the appropriate depth and then a sample of soil was brought to the surface and the brass tube pounded into the soil. Four locations were chosen and labeled S-1 thru S-4. The following are depths and lithologies for the samples:

S-1	20 feet	Yellow clay with organic matter, no odor
S-2	20 feet	Yellow-gray clay, no odor
S-3	20 feet	Gray clay, no odor
S-4	12 feet	Sand, fine grained, fine gravel, gray, unconsolidated

### Sample Preservation

All soil samples were collected in 2" x 6" sterilized brass tubes. The ends of the tubes were sealed with aluminum foil and covered with plastic caps. The caps were wrapped with tape to prevent any leakage from the sample tubes. Labels were put on the tubes noting the sample number, date, sampler, depth and analysis requested. The CDC form was filled out in the field. The samples were placed in a cooler with ice and delivered. Samples were then frozen prior to receipt at the laboratory.

## Soil and Water Sampling Report (continued)

### Soil Analyses

Four (4) soil samples were analyzed for Base Neutral and Acid Extractables (EPA Method 8270) and all were "ND" (See Appendix I).

Four (4) soil samples were analyzed for TPHd and TPHg/BTXE (EPA Methods 5030, 8020 and 3550) and all samples were "ND" (See Appendix I).

Four soil samples were analyzed for Total Oil and Grease (EPA Method 5520EF) and samples S-1, S-2, S-3 were "ND" Soil sample S-4 was noted at 140 ppm (See Appendix I)

### Water Sampling

Two (2) water samples were taken from Monitoring Wells 1 and 2 on April 5, 1991. Static water level of well No 2 (before purging) was 9'-8" from the low point of the tubing (western edge). Approximately 30 gallons were purged from the well and 16 minutes were required for the well to reach equilibrium. Well No 1 static water level was at 9'-8 8" (before purging). Water recovery was extremely slow and 1 5 hours were required to obtain 15 gallons of purge water. Neither water samples exhibited any sheen or odor. The water samples were placed in 40 ml. vials and four (4) 1 liter amber jars. All sample containers were labeled in the field and proper notation made on the COC form.

### Water Analyses

Two (2) water samples were analyzed for Base Neutral and Acid Extractables (EPA Method 625). All results were "ND" (See Appendix II).

Two (2) water samples were analyzed for TPHd and TPHg/BTXE (EPA Methods 5030 and 8020). All results were "ND" (See Appendix II).

Two (2) water samples were analyzed for TPHd (EPA Method 3510). All results were "ND" (See Appendix II).

Two (2) water samples were analyzed for Total Oil and Grease (EPA Method 5520EF). All results were "ND" (See Appendix II).

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. KENT MADENWALD  
SJV CONSULTANTS  
P.O. BOX 1257  
STOCKTON, CA 95201-1257

Workorder # : 9104066  
Date Received : 04/08/91  
Project ID : 0190002.00  
Purchase Order: N/A  
Department : GCMS  
Sub-Department: GCMS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9104066- 1	MW-1	WATER	04/05/91	8270 625
9104066- 2	MW-2	WATER	04/05/91	8270 626

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. KENT MADENWALD  
SVJ CONSULTANTS  
P.O. BOX 1257  
STOCKTON, CA 95201-1257

Workorder # : 9104066  
Date Received : 04/08/91  
Project ID : 0190002.00  
Purchase Order: N/A  
Department : GCMS  
Sub-Department: GCMS

QA/QC SUMMARY :

- No QA/QC problems encountered.

Paul Gowen 4-16-91  
Department Supervisor Date

Jana Masw 4/16/91  
Chemist Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270  
ANAMETRIX, INC. (408)432-8192

Project ID : 0190002.  
Sample ID : MW-1  
Matrix : WATER  
Date Sampled : 4/ 5/91  
Date Extracted : 4/ 9/91  
Amount Extracted : 1000.0 mL  
Date Analyzed : 4/12/91  
Instrument ID : F2

Anamatrix ID : 9104066-01  
Analyst : UM  
Supervisor : PG

Dilution Factor : 1.00  
Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
108-95-2	PHENOL	10.	ND	U
111-44-4	BIS(2-CHLOROETHYL) ETHER	10.	ND	U
95-57-8	2-CHLOROPHENOL	10.	ND	U
541-73-1	1,3-DICHLOROBENZENE	10.	ND	U
106-46-7	1,4-DICHLOROBENZENE	10.	ND	U
100-51-6	BENZYL ALCOHOL	10.	ND	U
95-50-1	1,2-DICHLOROBENZENE	10.	ND	U
95-48-7	2-METHYLPHENOL	10.	ND	U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	10.	ND	U
106-44-5	4-METHYLPHENOL	10.	ND	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	ND	U
67-72-1	HEXACHLOROETHANE	10.	ND	U
98-95-3	NITROBENZENE	10.	ND	U
78-59-1	ISOPHORONE	10.	ND	U
88-75-5	2-NITROPHENOL	10.	ND	U
105-67-9	2,4-DIMETHYLPHENOL	10.	ND	U
65-85-0	BENZOIC ACID	50.	ND	U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	10.	ND	U
120-83-2	2,4-DICHLOROPHENOL	10.	ND	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	ND	U
91-20-3	NAPHTHALENE	10.	ND	U
106-47-8	4-CHLOROANILINE	10.	ND	U
87-68-3	HEXACHLOROBUTADIENE	10.	ND	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	ND	U
91-57-6	2-METHYLNAPHTHALENE	10.	ND	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	ND	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	ND	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	ND	U
91-58-7	2-CHLORONAPHTHALENE	10.	ND	U
88-74-4	2-NITROANILINE	50.	ND	U
131-11-3	DIMETHYLPHTHALATE	10.	ND	U
208-96-8	ACENAPHTHYLENE	10.	ND	U
606-20-2	2,6-DINITROTOLUENE	10.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270  
ANAMETRIX, INC. (408)432-8192

Project ID : 0190002.  
Sample ID : MW-1  
Matrix : WATER  
Date Sampled : 4/ 5/91  
Date Extracted : 4/ 9/91  
Amount Extracted : 1000.0 mL  
Date Analyzed : 4/12/91  
Instrument ID : F2

Anamatrix ID : 9104066-01  
Analyst : UM  
Supervisor : PG

Dilution Factor : 1.00  
Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
99-09-2	3-NITROANILINE	50.	ND	U
83-32-9	ACENAPHTHENE	10.	ND	U
51-28-5	2,4-DINITROPHENOL	50.	ND	U
100-02-7	4-NITROPHENOL	50.	ND	U
132-64-9	DIBENZOFURAN	10.	ND	U
121-14-2	2,4-DINITROTOLUENE	10.	ND	U
84-66-2	DIETHYLPHTHALATE	10.	ND	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10.	ND	U
86-73-7	FLUORENE	10.	ND	U
100-01-6	4-NITROANILINE	50.	ND	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	ND	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	ND	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10.	ND	U
118-74-1	HEXACHLOROBENZENE	10.	ND	U
87-86-5	PENTACHLOROPHENOL	50.	ND	U
85-01-8	PHENANTHRENE	10.	ND	U
120-12-7	ANTHRACENE	10.	ND	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	ND	U
206-44-0	FLUORANTHENE	10.	ND	U
129-00-0	PYRENE	10.	ND	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	ND	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	ND	U
56-55-3	BENZO (A) ANTHRACENE	10.	ND	U
218-01-9	CHRYSENE	10.	ND	U
117-81-7	BIS (2-ETHYLHEXYL) PHTHALATE	10.	ND	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	ND	U
205-99-2	BENZO (B) FLUOROANTHENE	10.	ND	U
207-08-9	BENZO (K) FLUOROANTHENE	10.	ND	U
50-32-8	BENZO (A) PYRENE	10.	ND	U
193-39-5	INDENO (1,2,3-CD) PYRENE	10.	ND	U
53-70-3	DIBENZ[A,H]ANTHRACENE	10.	ND	U
191-24-2	BENZO (G,H,I) PERYLENE	10.	ND	U
62-75-9	N-NITROSODIMETHYLAMINE	10.	ND	U
4165-61-1	ANILINE	10.	ND	U
103-33-3	AZOBENZENE	10.	ND	U
92-87-5	BENZIDINE	50.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270  
ANAMETRIX, INC. (408)432-8192

Project ID : 0190002.  
Sample ID : MW-23  
Matrix : WATER  
Date Sampled : 4/ 5/91  
Date Extracted : 4/ 9/91  
Amount Extracted : 1000.0 mL  
Date Analyzed : 4/12/91  
Instrument ID : F2

Anamatrix ID : 9104066-02  
Analyst : UM  
Supervisor : PG

Dilution Factor : 1.00  
Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
108-95-2	PHENOL	10.	ND	U
111-44-4	BIS(2-CHLOROETHYL) ETHER	10.	ND	U
95-57-8	2-CHLOROPHENOL	10.	ND	U
541-73-1	1,3-DICHLOROBENZENE	10.	ND	U
106-46-7	1,4-DICHLOROBENZENE	10.	ND	U
100-51-6	BENZYL ALCOHOL	10.	ND	U
95-50-1	1,2-DICHLOROBENZENE	10.	ND	U
95-48-7	2-METHYLPHENOL	10.	ND	U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	10.	ND	U
106-44-5	4-METHYLPHENOL	10.	ND	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	ND	U
67-72-1	HEXACHLOROETHANE	10.	ND	U
98-95-3	NITROBENZENE	10.	ND	U
78-59-1	ISOPHORONE	10.	ND	U
88-75-5	2-NITROPHENOL	10.	ND	U
105-67-9	2,4-DIMETHYLPHENOL	10.	ND	U
65-85-0	BENZOIC ACID	50.	ND	U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	10.	ND	U
120-83-2	2,4-DICHLOROPHENOL	10.	ND	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	ND	U
91-20-3	NAPHTHALENE	10.	ND	U
106-47-8	4-CHLOROANILINE	10.	ND	U
87-68-3	HEXACHLOROBUTADIENE	10.	ND	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	ND	U
91-57-6	2-METHYLNAPHTHALENE	10.	ND	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	ND	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	ND	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	ND	U
91-58-7	2-CHLORONAPHTHALENE	10.	ND	U
88-74-4	2-NITROANILINE	50.	ND	U
131-11-3	DIMETHYLPHTHALATE	10.	ND	U
208-96-8	ACENAPHTHYLENE	10.	ND	U
606-20-2	2,6-DINITROTOLUENE	10.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270  
 ANAMETRIX, INC. (408)432-8192

Project ID : 0190002.  
 Sample ID : MW-2  
 Matrix : WATER  
 Date Sampled : 4/ 5/91  
 Date Extracted : 4/ 9/91  
 Amount Extracted : 1000.0 mL  
 Date Analyzed : 4/12/91  
 Instrument ID : F2

Anamatrix ID : 9104066-02  
 Analyst : JH  
 Supervisor : PG

Dilution Factor : 1.00  
 Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
99-09-2	3-NITROANILINE	50.	ND	U
83-32-9	ACENAPHTHENE	10.	ND	U
51-28-5	2,4-DINITROPHENOL	50.	ND	U
100-02-7	4-NITROPHENOL	50.	ND	U
132-64-9	DIBENZOFURAN	10.	ND	U
121-14-2	2,4-DINITROTOLUENE	10.	ND	U
84-66-2	DIETHYLPHTHALATE	10.	ND	U
7005-72-3	4-CHLOROPHENYL-PHENYLEETHER	10.	ND	U
86-73-7	FLUORENE	10.	ND	U
100-01-6	4-NITROANILINE	50.	ND	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	ND	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	ND	U
101-55-3	4-BROMOPHENYL-PHENYLEETHER	10.	ND	U
118-74-1	HEXACHLOROBENZENE	10.	ND	U
87-86-5	PENTACHLOROPHENOL	50.	ND	U
85-01-8	PHENANTHRENE	10.	ND	U
120-12-7	ANTHRACENE	10.	ND	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	ND	U
206-44-0	FLUORANTHENE	10.	ND	U
129-00-0	PYRENE	10.	ND	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	ND	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	ND	U
56-55-3	BENZO (A) ANTHRACENE	10.	ND	U
218-01-9	CHRYSENE	10.	ND	U
117-81-7	BIS (2-ETHYLHEXYL) PHTHALATE	10.	ND	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	ND	U
205-99-2	BENZO (B) FLUOROANTHENE	10.	ND	U
207-08-9	BENZO (K) FLUOROANTHENE	10.	ND	U
50-32-8	BENZO (A) PYRENE	10.	ND	U
193-39-5	INDENO (1,2,3-CD) PYRENE	10.	ND	U
53-70-3	DIBENZ [A, H] ANTHRACENE	10.	ND	U
191-24-2	BENZO (G, H, I) PERYLENE	10.	ND	U
62-75-9	N-NITROSODIMETHYLAMINE	10.	ND	U
4165-61-1	ANILINE	10.	ND	U
103-33-3	AZOBENZENE	10.	ND	U
92-87-5	BENZIDINE	50.	ND	U



ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270  
 ANAMETRIX, INC. (408)432-8192

Project ID :  
 Sample ID : BLANK  
 Matrix : WATER  
 Date Sampled : 0/ 0/ 0  
 Date Extracted : 4/ 9/91  
 Amount Extracted : 1000.0 mL  
 Date Analyzed : 4/12/91  
 Instrument ID : F2

Anamatrix ID : 2CB0409C01  
 Analyst : JM  
 Supervisor : PG

Dilution Factor : 1.00  
 Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
108-95-2	PHENOL	10.	ND	U
111-44-4	BIS (2-CHLOROETHYL) ETHER	10.	ND	U
95-57-8	2-CHLOROPHENOL	10.	ND	U
541-73-1	1,3-DICHLOROBENZENE	10.	ND	U
106-46-7	1,4-DICHLOROBENZENE	10.	ND	U
100-51-6	BENZYL ALCOHOL	10.	ND	U
95-50-1	1,2-DICHLOROBENZENE	10.	ND	U
95-48-7	2-METHYLPHENOL	10.	ND	U
108-60-1	BIS (2-CHLOROISOPROPYL) ETHER	10.	ND	U
106-44-5	4-METHYLPHENOL	10.	ND	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	ND	U
67-72-1	HEXACHLOROETHANE	10.	ND	U
98-95-3	NITROBENZENE	10.	ND	U
78-59-1	ISOPHORONE	10.	ND	U
88-75-5	2-NITROPHENOL	10.	ND	U
105-67-9	2,4-DIMETHYLPHENOL	10.	ND	U
65-85-0	BENZOIC ACID	50.	ND	U
111-91-1	BIS (2-CHLOROETHOXY) METHANE	10.	ND	U
120-83-2	2,4-DICHLOROPHENOL	10.	ND	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	ND	U
91-20-3	NAPHTHALENE	10.	ND	U
106-47-8	4-CHLOROANILINE	10.	ND	U
87-68-3	HEXACHLOROBUTADIENE	10.	ND	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	ND	U
91-57-6	2-METHYLNAPHTHALENE	10.	ND	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	ND	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	ND	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	ND	U
91-58-7	2-CHLORONAPHTHALENE	10.	ND	U
88-74-4	2-NITROANILINE	50.	ND	U
131-11-3	DIMETHYLPHTHALATE	10.	ND	U
208-96-8	ACENAPHTHYLENE	10.	ND	U
606-20-2	2,6-DINITROTOLUENE	10.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270  
 ANAMETRIX, INC. (408)432-8192

Project ID :  
 Sample ID : BLANK  
 Matrix : WATER  
 Date Sampled : 0/ 0/ 0  
 Date Extracted : 4/ 9/91  
 Amount Extracted : 1000.0 mL  
 Date Analyzed : 4/12/91  
 Instrument ID : F2

Anamatrix ID : 2CB0409C01  
 Analyst : UM  
 Supervisor : pg

Dilution Factor : 1.00  
 Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
99-09-2	3-NITROANILINE	50.	ND	U
83-32-9	ACENAPHTHENE	10.	ND	U
51-28-5	2,4-DINITROPHENOL	50.	ND	U
100-02-7	4-NITROPHENOL	50.	ND	U
132-64-9	DIBENZOFURAN	10.	ND	U
121-14-2	2,4-DINITROTOLUENE	10.	ND	U
84-66-2	DIETHYLPHTHALATE	10.	ND	U
7005-72-3	4-CHLOROPHENYL-PHENYLEETHER	10.	ND	U
86-73-7	FLUORENE	10.	ND	U
100-01-6	4-NITROANILINE	50.	ND	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	ND	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	ND	U
101-55-3	4-BROMOPHENYL-PHENYLEETHER	10.	ND	U
118-74-1	HEXACHLOROBENZENE	10.	ND	U
87-86-5	PENTACHLOROPHENOL	50.	ND	U
85-01-8	PHENANTHRENE	10.	ND	U
120-12-7	ANTHRACENE	10.	ND	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	ND	U
206-44-0	FLUORANTHENE	10.	ND	U
129-00-0	PYRENE	10.	ND	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	ND	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	ND	U
56-55-3	BENZO (A) ANTHRACENE	10.	ND	U
218-01-9	CHRYSENE	10.	ND	U
117-81-7	BIS (2-ETHYLHEXYL) PHTHALATE	10.	ND	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	ND	U
205-99-2	BENZO (B) FLUOROANTHENE	10.	ND	U
207-08-9	BENZO (K) FLUOROANTHENE	10.	ND	U
50-32-8	BENZO (A) PYRENE	10.	ND	U
193-39-5	INDENO (1,2,3-CD) PYRENE	10.	ND	U
53-70-3	DIBENZ [A, H] ANTHRACENE	10.	ND	U
191-24-2	BENZO (G, H, I) PERYLENE	10.	ND	U
62-75-9	N-NITROSODIMETHYLAMINE	10.	ND	U
4165-61-1	ANILINE	10.	ND	U
103-33-3	AZOBENZENE	10.	ND	U
92-87-5	BENZIDINE	50.	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 625/8270  
ANAMETRIX, INC. (408)432-8192

Project ID : 0190002.  
Matrix : LIQUID

Anamatrix ID : 9104066  
Analyst : UH  
Supervisor : PG

	SAMPLE ID	SU1	SU2	SU3	SU4	SU5	SU6	TOTAL OUT
1	BLANK	53	34	57	57	82	57	0
2	MW-1	56	36	58	57	88	57	0
3	MW-2	51	33	57	56	83	51	0
4	MW-2 MS	46	33	58	57	64	56	0
5	MW-2 MSD	48	33	58	56	71	56	0
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

QC LIMITS

SU1 = 2-FLUOROPHENOL (10- 82)  
 SU2 = PHENOL-D5 (10- 72)  
 SU3 = NITROBENZENE-D5 (10-100)  
 SU4 = 2-FLUOROBIPHENYL (10- 92)  
 SU5 = 2,4,6-TRIBROMOPHENOL (15-139)  
 SU6 = TERPHENYL-D14 (10-110)

\* Values outside of Anamatrix QC limits

MATRIX SPIKE RECOVERY FORM -- EPA METHOD 625/8270  
 ANAMETRIX, INC. (408)432-8192

Project ID : 0190002.  
 Sample ID : MW-2  
 Matrix : WATER  
 Date Sampled : 4/ 5/91  
 Date Extracted : 4/ 9/91  
 Date Analyzed : 4/12/91  
 Instrument ID : F2

Anamatrix ID : 9104066-02  
 Analyst : UH  
 Supervisor : pG

COMPOUND	SPIKE ADDED (ug/L )	SAMPLE CONCENTRATION (ug/L )	MS CONCENTRATION (ug/L )	MS % REC	%REC LIMITS
PHENOL	100.	0.	37.	37	10- 82
2-CHLOROPHENOL	100.	0.	65.	65	27-114
1,4-DICHLOROBENZENE	50.	0.	32.	64	21- 86
N-NITROSO-DI-N-PROP. (1)	50.	0.	43.	85	29-139
1,2,4-TRICHLOROBENZENE	50.	0.	36.	72	14-104
4-CHLORO-3-METHYLPHENOL	100.	0.	77.	77	36-121
ACENAPHTHENE	50.	0.	42.	83	38-108
4-NITROPHENOL	100.	0.	22.	22	10- 58
2,4-DINITROTOLUENE	50.	0.	39.	79	44-121
PENTACHLOROPHENOL	100.	0.	33.	33	10-137
PYRENE	50.	0.	44.	89	44-125

COMPOUND	SPIKE ADDED (ug/L )	MSD CONCENTRATION (ug/L )	MSD % REC	% RPD	RPD LIMITS	%REC LIMITS
PHENOL	100.	37.	37	0	42	10- 82
2-CHLOROPHENOL	100.	68.	68	6	40	27-114
1,4-DICHLOROBENZENE	50.	30.	60	7	28	21- 86
N-NITROSO-DI-N-PROP. (1)	50.	42.	83	3	38	29-139
1,2,4-TRICHLOROBENZENE	50.	34.	67	7	28	14-104
4-CHLORO-3-METHYLPHENOL	100.	79.	79	1	42	36-121
ACENAPHTHENE	50.	41.	81	2	31	38-108
4-NITROPHENOL	100.	25.	25	12	50	10- 58
2,4-DINITROTOLUENE	50.	38.	76	3	38	44-121
PENTACHLOROPHENOL	100.	38.	38	12	50	10-137
PYRENE	50.	44.	88	0	31	44-125

\* Value is outside of Anamatrix QC limits

RPD: 0 out of 11 outside limits  
 Spike Recovery: 0 out of 22 outside limits

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. KENT MADENWALD  
SJV CONSULTANTS  
P.O. BOX 1257  
STOCKTON, CA 95201-1257

Workorder # : 9104066  
Date Received : 04/08/91  
Project ID : 0190002.00  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9104066- 1	MW-1	WATER	04/05/91	TPHd
9104066- 2	MW- <del>1</del> 3	WATER	04/05/91	TPHd
9104066- 1	MW-1	WATER	04/05/91	TPHg/BTEX
9104066- 2	MW- <del>1</del> 3	WATER	04/05/91	TPHg/BTEX

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. KENT MADENWALD  
SJV CONSULTANTS  
P.O. BOX 1257  
STOCKTON, CA 95201-1257

Workorder # : 9104066  
Date Received : 04/08/91  
Project ID : 0190002.00  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheyl Balmer 4/13/91  
Department Supervisor Date

Barth Vogel 4/12/91  
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS  
(GASOLINE WITH BTEX)  
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9104066  
Matrix : WATER  
Date Sampled : 04/05/91

Project Number : 0190002.00  
Date Released : 04/12/91

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# MW-1	Sample I.D.# MW-2	Sample I.D.# 12B0410A
Benzene	0.5	ND	ND	ND
Toluene	0.5	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND
TPH as Gasoline	50	ND	ND	ND
% Surrogate Recovery		86%	80%	107%
Instrument I.D.		HP12	HP12	HP12
Date Analyzed		04/10/91	04/10/91	04/10/91
RLMF		1	1	1

ND - Not detected at or above the practical quantitation limit for the method.  
 TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.  
 BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 (60-6 (4ft))  
 RLMF - Reporting Limit Multiplication Factor.  
 Anamatrix control limits for surrogate recovery are 53-147%.

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

Garth Voigt 4/12/91  
Analyst Date

Charles Bulman 4/12/91  
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL  
ANAMETRIX, INC. (408) 432-8192

Anamatrix W.O.: 9104066  
 Matrix : WATER  
 Date Sampled : 04/05/91  
 Date Extracted: 04/09/91

Project Number : 0190002.00  
 Date released : 04/12/91  
 Instrument I.D.: HP19

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9104066-01	MW-1	04/09/91	50	ND
9104066-02	MW-2	04/09/91	50	ND
DWBLO40991	METHOD BLANK	04/09/91	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50ug/L.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GC/FID following sample extraction by EPA Method 3510.

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

Scott Vogt 4/12/91  
 Analyst Date

Cheyl Beeman 4/12/91  
 Supervisor Date



TOTAL EXTRACTABLE HYDROCARBON MATRIX SPIKE REPORT  
 EPA METHOD 3550 WITH GC/FID  
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : METHOD SPIKE  
 Matrix : REAGENT WATER  
 Date sampled : N/A  
 Date extracted: 04/09/91  
 Date analyzed : 04/09/91

Anamatrix I.D. : SPK040991  
 Analyst : *GU.*  
 Supervisor : *ES*  
 Date Released : 04/12/91

COMPOUND	SPIKE AMT. (ug/L)	MS (ug/L)	%REC MS	MSD (ug/L)	%REC MSD	RPD	%REC LIMITS
Diesel	500	350	70%	360	72%	3%	49-122

\* Limits established by Anamatrix, Inc.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. KENT MADENWALD  
SJV CONSULTANTS  
P.O. BOX 1257  
STOCKTON, CA 95201-1257

Workorder # : 9104066  
Date Received : 04/08/91  
Project ID : 0190002.00  
Purchase Order: N/A  
Department : PREP  
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9104066- 1	MW-1	WATER	04/05/91	5520BF
9104066- 2	MW- <del>2</del> 3	WATER	04/05/91	5520BF

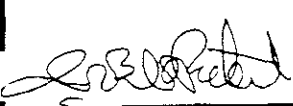
REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

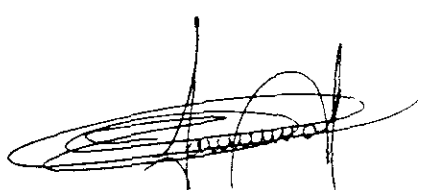
MR. KENT MADENWALD  
SVJ CONSULTANTS  
P.O. BOX 1257  
STOCKTON, CA 95201-1257

Workorder # : 9104066  
Date Received : 04/08/91  
Project ID : 0190002.00  
Purchase Order: N/A  
Department : PREP  
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for this workorder.

 April, 12<sup>th</sup> 1991.  
\_\_\_\_\_  
Department Supervisor Date

  
\_\_\_\_\_  
Chemist Date

ANALYSIS DATA SHEET - TOTAL OIL AND GREASE  
ANAMETRIX, INC. (408) 432-8192

Project No. : 0190002.00  
 Matrix : WATER  
 Date sampled : 04/05/91  
 Date ext. TOG: 04/09/91  
 Date anl. TOG: 04/09/91

Anametrix I.D. : 9104066  
 Analyst : *[Signature]*  
 Supervisor : *[Signature]*  
 Date released : 04/12/91

Workorder #	Sample I.D.	Reporting Limit (mg/L)	Amount Found (mg/L)
9104066-01	MW-1	5	ND
9104066-02	MW-2	5	ND
GWBL040991	METHOD BLANK	5	ND

ND - Not detected at or above the practical quantitation limit for the method.

TOG - Total Oil & Grease is determined by Standard Method 5520BF.

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

TOTAL OIL AND GREASE METHOD SPIKE  
 STANDARD METHOD 5520BF  
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : METHOD SPIKE  
 Matrix : WATER  
 Date sampled : N/A  
 Date extracted: 04/09/91  
 Date analyzed : 04/09/91

Anamatrix I.D. : SPK040991  
 Analyst :  
 Supervisor : *(Signature)*  
 Date Released : 04/12/91

COMPOUND	SPIKE AMT. (mg/L)	MS (mg/L)	%REC MS	MSD (mg/L)	%REC MSD	RPD	%REC LIMIT
Motor Oil	50	40	80%	40	80%	0%	47-99

\* Quality control limits established by Anamatrix, Inc.

# SJV CONSULTANTS

Geological • Environmental • Mechanical • Asbestos

August 12, 1991  
File No. 0191022.01

Mayer Properties, Inc.  
753 Peralta Avenue  
San Leandro, California 94577

Attention: Mr. Leon Mayer

Subject: Quarterly Groundwater Sampling  
105th Avenue  
Oakland, California

Dear Mr. Mayer:

SJV Consultants is pleased to present the attached report outlining the results of the most recent quarterly sampling effort at the subject site.

Analytical results indicate that MW-3 exhibits no contamination as the analytical data indicates ND. MW-4 indicates total petroleum hydrocarbons as 63 ppb based on discrete peaks which are however not indicative of gasoline. This will be examined further in the October sampling.

It is our recommendation that the next quarterly sampling be accomplished in October, 1991.

If there are any questions concerning this report please call at (510) 793 5366. A copy of this report should be forwarded to Mr. Barney Chan of the Alameda County Department of Health under your signature.

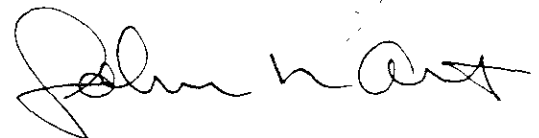
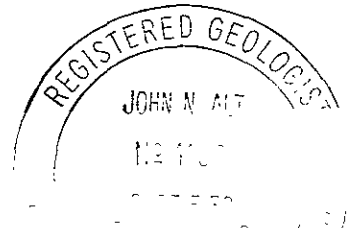
Thank you for using SJV Consultants in this matter.

Regards,



Kent A. Madenwald  
SJV Consultants

attach



REPORT ON WATER SAMPLING

105th Avenue Site  
Oakland, California

for

Mayer Properties, Inc.  
753 Peralta Avenue  
San Leandro, California 94577

by

SJV Consultants  
P.O. Box 7418  
Fremont, California 94537

August 12, 1991

File No 0191022 01

## Background

Quarterly sampling of two (2) monitoring wells was initiated in April, 1991. Presently there are two monitoring wells, with the third well being abandoned during previous operations at the site. Two additional wells exist, which were for irrigation purposes. These two wells were investigated as to ability to afford elevation information. The well located in the eastern area of the property has been filled with dirt and debris and therefore is not used for groundwater elevation purposes (See Plate 1).

Another well in the north central portion of the property has groundwater in the well, with a 2" casing placed inside the original 6" steel casing. The elevation for this groundwater measurement was taken at the top of the 2" casing (See Plate 1).

## Water Sampling

Monitoring Wells 1 and 2 were purged by means of a hand pump and the water placed into two drums. Monitoring well No. 1 was purged approximately 22 gallons prior to sampling. The samples were taken in a clean 1" teflon bailer. Samples were placed in appropriate containers and stored in coolers with blue ice. Monitoring well No. 2 was purged approximately 26 gallons and the groundwater sample was taken with a clean 1" teflon bailer. Samples were collected in proper containers and stored in a cooler with blue ice.

## Analytical Results

Monitoring Wells 1 and 2 were analyzed per the following methods: TPHg, TPHd, BTX&E, Total Oil and Grease. The following table summarizes the analytical data.

TABLE I

<u>Sample No.</u>	<u>TPHg</u>	<u>TPHd</u>	<u>TOG</u>
GW-MW-1	63*	ND	ND
GW-MW-2	ND	ND	ND

All results in ppb (parts per billion)

\* The concentration reported as gasoline is primarily due to the presence of discrete hydrocarbon peaks not indicative of gasoline (See Anametrix, Inc , report GC/TPH - Page 2)



Recommendations

No further testing is anticipated until October, 1991. The explanation for the 63 ppb as gasoline is unexplainable at this time and will be checked in the October sampling where a duplicate sample will be taken and run as a field blank.

105 TH AVE



MW-3 ~~MW-1~~ 19.47' Former Tank Site

MW-1 ~~MW-2~~ 19.02'

W-4  
16.14'  
(2" CSG)

W-3  
(NO WATER)

- ⊕ Groundwater Monitoring Well
- ⊖ Existing Water Well

LOCATION, GROUNDWATER WELLS 105th Avenue Oakland, California		
SCALE: None	APPROVED BY:	DRAWN BY
DATE: 8-12-91		REVISED
MAYER DEVELOPMENT, INC. 753 Peralta Ave., San Leandro, CA		
SJV Consultants P.O. Box 7418, Fremont, CA		DRAWING NUMBER P-1

# CHAIN OF CUSTODY RECORD

9101348 (10/8) (10/13) 12/15

SJV CONSULTANTS

**PERSONNEL**

**SITE INFORMATION**

Sampler (Signature) [Signature]  
 Phone 415 293 4366  
 Field Crew Supervisor \_\_\_\_\_  
 Field Company \_\_\_\_\_  
 Project Geologist/Engineer K.A.L.L.

Job Name LATE PROPERTIES  
 Job Number 011022.00  
 Sample Location 105 TH AVE  
1. SAN JUAN CA.  
 P.O. Number \_\_\_\_\_

Relinquished by (Signature) <u>[Signature]</u>	Received by (Signature) <u>Calvin Polanco</u>	Date <u>07-30-91</u>	Time <u>11:00</u>
Relinquished by (Signature) _____	Received by (Signature) _____	Date _____	Time _____

Analysis laboratory should complete "sample cond. upon receipt" section below, sign, and return copy to Shipper

Sample Number	Sample Type	No. of Cont.	Site Identification	Date Sampled	Analysis Requested	Sample Cond. Upon Receipt
GW-1	H <sub>2</sub> O	2		7-29	TOG	
MW-1	"	1		7-29	TPH(G)	
GW-1	"	2		7-29	TPH(D)	
MW-1	"					
GW-2	H <sub>2</sub> O	2		7-29	TOG	
MW-2	"	1		7-29	TPH(G)	
GW-2	"	2		7-29	TPH(D)	
MW-2	"					

SAMPLE #1  
 3 UOA FOR BTEX/TPH  
 2 LITER FOR TPHd  
 2 LITER FOR TOG  
 SAMPLE #2  
 3 UOA FOR BTEX/TPH  
 2 LITER FOR TPHd  
 2 LITER FOR TOG

SAMPLES COLD  
 PROPER CONTAINER  
 NO HEADSPACE  
 LITERS FOR TOG  
 WAS PRESERVED

Remarks: TOG  
3 UOA SAMPLED LITERS



MR. KENT MADENWALD  
 SJV CONSULTANTS  
 P.O. BOX 7418  
 FREMONT, CA 94537

Workorder # : 9107348  
 Date Received : 07/30/91  
 Project ID : 0191022.00  
 Purchase Order: N/A

The following samples were received at Anamatrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9107348- 1	GW-MW-1
9107348- 2	GW-MW-2

This report consists of 9 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anamatrix.

*Sarah Schoen*

Sarah Schoen, Ph.D.  
 Laboratory Manager

08-08-91

Date

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. KENT MADENWALD  
SJV CONSULTANTS  
P.O. BOX 7418  
FREMONT, CA 94537

Workorder # : 9107348  
Date Received : 07/30/91  
Project ID : 0191022.00  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9107348- 1	GW-MW-1	WATER	07/29/91	TPHd
9107348- 2	GW-MW-2	WATER	07/29/91	TPHd
9107348- 1	GW-MW-1	WATER	07/29/91	TPHg
9107348- 2	GW-MW-2	WATER	07/29/91	TPHg

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. KENT MADENWALD  
SJV CONSULTANTS  
P.O. BOX 7418  
FREMONT, CA 94537

Workorder # : 9107348  
Date Received : 07/30/91  
Project ID : 0191022.00  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

QA/QC SUMMARY :

- The concentration reported as gasoline for sample GW-MW-2 is primarily due to the presence of discrete hydrocarbon peaks not indicative of gasoline.

\_\_\_\_\_  
Department Supervisor Date

*Anna Sbor*  
\_\_\_\_\_  
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS  
 (GASOLINE WITH BTEX)  
 ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9107348  
 Matrix : WATER  
 Date Sampled : 07/29/91

Project Number : 0191022.00  
 Date Released : 08/08/91

	Reporting Limit	Sample I.D.# GW-MW-1	Sample I.D.# GW-MW-2	Sample I.D.# 04B0801B
COMPOUNDS	(ug/L)	-01	-02	BLANK
TPH as Gasoline	50	ND	63	ND
% Surrogate Recovery		102%	113%	100%
Instrument I.D.		HP4	HP4	HP4
Date Analyzed		08/01/91	08/01/91	08/01/91
RLMF		1	1	1

ND - Not detected at or above the practical quantitation limit for the method.

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.

RLMF - Reporting Limit Multiplication Factor.  
 Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

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

Lucia Star                      8/3/91  
 Analyst                                      Date

Charles P. ...                      8/11  
 Supervisor                                      Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL  
ANAMETRIX, INC. (408) 432-8192

Anamatrix W.O.: 9107348  
Matrix : WATER  
Date Sampled : 07/29/91  
Date Extracted: 08/05/91

Project Number : 0191022.00  
Date Released : 08/08/91  
Instrument I.D.: HP23

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9107348-01	GW-MW-1	08/06/91	50	ND
9107348-02	GW-MW-2	08/06/91	50	ND
DWBLO80591	METHOD BLANK	08/06/91	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50ug/L.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3510.

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

Anne Shoo                      8/8/91  
Analyst                                      Date

Clifford                                      8/8/91  
Supervisor                                      Date



TOTAL EXTRACTABLE HYDROCARBON METHOD SPIKE REPORT  
 EPA METHOD 3510 WITH GC/FID  
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : METHOD SPIKE  
 Matrix : REAGENT WATER  
 Date Sampled : N/A  
 Date Extracted: 08/05/91  
 Date Analyzed : 08/06/91

Anamatrix I.D. : SPK080591  
 Analyst : IS  
 Supervisor : JS  
 Date Released : 08/08/91

COMPOUND	SPIKE AMT. (ug/L)	MS (ug/L)	%REC MS	MSD (ug/L)	%REC MSD	RPD	%REC LIMITS
Diesel	1250	1200	96%	1300	104%	8%	35-109

\* Limits established by Anamatrix, Inc.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. KENT MADENWALD  
SJV CONSULTANTS  
P.O. BOX 7418  
FREMONT, CA 94537

Workorder # : 9107348  
Date Received : 07/30/91  
Project ID : 0191022.00  
Purchase Order: N/A  
Department : PREP  
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9107348- 1	GW-MW-1	WATER	07/29/91	5520BF
9107348- 2	GW-MW-2	WATER	07/29/91	5520BF

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. KENT MADENWALD  
SVJ CONSULTANTS  
P.O. BOX 7418  
FREMONT, CA 94537

Workorder # : 9107348  
Date Received : 07/30/91  
Project ID : 0191022.00  
Purchase Order: N/A  
Department : PREP  
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

*Kent Madenwald*      August, 6<sup>th</sup> 1991.  
Department Supervisor      Date

*Ed Hiel*      08-06-91  
Chemist      Date

ANALYSIS DATA SHEET - TOTAL OIL AND GREASE  
 ANAMETRIX, INC. (408) 432-8192

Project # : 0191022.00  
 Matrix : WATER  
 Date sampled : 07/29/91  
 Date ext. TOG: 08/02/91  
 Date anl. TOG: 08/02/91

Anamatrix I.D. : 9107348  
 Analyst :  
 Supervisor :  
 Date released : 08/05/91

Workorder #	Sample I.D.	Reporting Limit (mg/L)	Amount Found (mg/L)
9107348-01	GW-MW-1	5	ND
9107348-02	GW-MW-2	5	ND
GWBL080291	METHOD BLANK	5	ND

ND - Not detected at or above the practical quantitation limit for the method.

TOG - Total Oil & Grease is determined by Standard Method 5520BF.

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

TOTAL OIL AND GREASE METHOD SPIKE  
 STANDARD METHOD 5520BF  
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : METHOD SPIKE  
 Matrix : WATER  
 Date Sampled : N/A  
 Date extracted: 08/02/91  
 Date analyzed : 08/02/91

Anamatrix I.D. : SPK080291  
 Analyst : *APL*  
 Supervisor : *EP*  
 Date Released : 08/05/91

COMPOUND	SPIKE AMT. (mg/L)	MS (mg/L)	%REC MS	MSD (mg/L)	%REC MSD	%RPD	%REC LIMITS
Motor Oil	50	48	96%	48	96%	0%	47-99%

\* Quality control limits established by Anamatrix, Inc.

October 22, 1991  
File No. 0191022.01

Mayer Properties, Inc.  
753 Peralta Avenue  
San Leandro, California 94577

Attention: Mr. Leon Mayer

Subject: Quarterly Groundwater Sampling  
342-344 105th Avenue  
Oakland, California

Dear Mr. Mayer:

SJV Consultants is pleased to present the attached report outlining the results of the most recent quarterly sampling effort at the subject site.

Analytical results indicate that MW-3 exhibits 1.1 ppm of Oil and Grease, which is below action levels, and all other constituents are Non Detected. MW-1 indicated Non-Detected on all constituents.

It is our recommendation that the last quarterly sampling be accomplished in January, 1992.

If there are any questions concerning this report please call at (510) 793-5366. A copy of this report should be forwarded to Mr. Barney Chan of the Alameda County Department of Health under your signature.

Thank you for using SJV Consultants in this matter.

Regards,

Kent A. Madenwald  
SJV Consultants

REPORT ON WATER SAMPLING

105th Avenue Site  
Oakland, California

for

Mayer Properties, Inc.  
753 Peralta Avenue  
San Leandro, California, 94577

by

SJV Consultants  
P.O. Box 7418  
Fremont, California 94537

August 12, 1991

File # 105th Avenue Site

Background

Quarterly sampling of two (2) monitoring wells was initiated in April, 1991. The third monitoring well was abandoned during previous operations at the site. This effort is the third quarterly sampling of the two wells.

Water Sampling

Monitoring wells 1 and 2 were purged by means of a hand pump and the water placed into two drums. Twenty-five gallons of water was purged from each well. The samples were taken in a clean 1" teflon bailer. Samples were placed in appropriate containers and stored in coolers with ice.

Analytical Results

Monitoring wells 1 and 2 were analyzed per the following methods: TPH(g), TPH(d), BTX&E, and Total Oil and Grease. The following table summarizes the analytical data.

TABLE I

<u>Sample No.</u>	<u>TPH(g)</u>	<u>TPH(d)</u>	<u>B</u>	<u>T</u>	<u>X</u>	<u>E</u>	<u>TOG</u>
MW-1	ND	ND	ND	ND	ND	ND	1.1
MW-2	ND	ND	ND	ND	ND	ND	ND

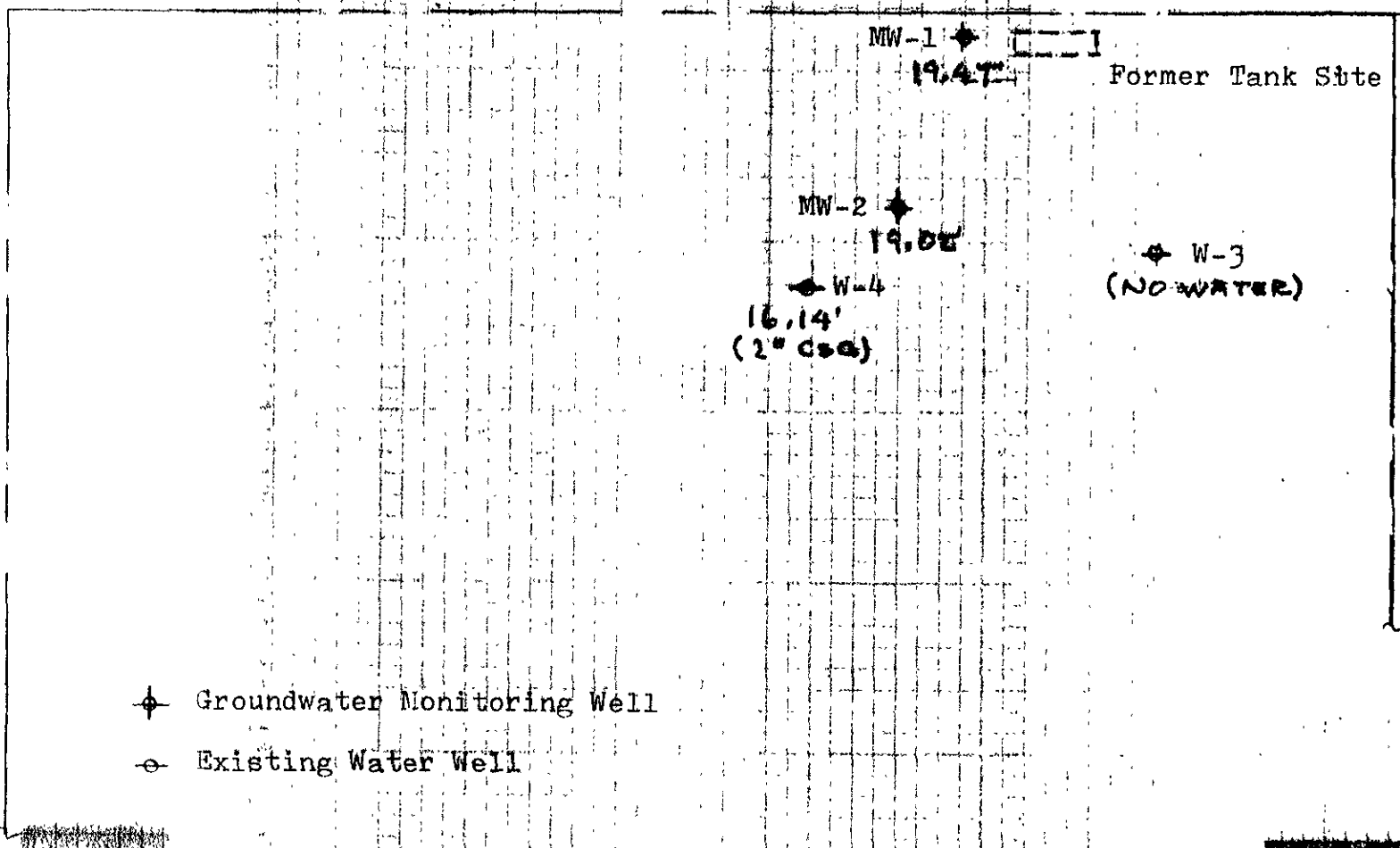
Total Oil and Grease in ppm (parts per million).

Recommendations

No further testing is required until January, 1992.



105 TH AVE



- ♦ Groundwater Monitoring Well
- ◉ Existing Water Well

LOCATION: GROUNDWATER WELLS 105th Street, Oakland, California	
SCALE: None	APPROVED BY: _____
DATE: 8-12-91	DRAWN BY: _____
MAYER DEVELOPMENT, INC. 753 Peralta Ave., San Leandro, CA	
SJV Consultants P.O. Box 7418, Fremont, CA	DRAWING NUMBER P-1

3797

# CHAIN OF CUSTODY RECORD

SJV CONSULTANTS

**PERSONNEL**

**SITE INFORMATION**

Sampler (Signature) [Signature]  
Phone 510-793-5366

Job Name MAJOR PROPERTIES  
Job Number 0191022.00  
Sample Location GW-1, GW-2

Field Crew Supervisor \_\_\_\_\_  
Field Company SJV CONSULTANTS

Project Geologist/Engineer K.A. MADENWALD P.O. Number \_\_\_\_\_

Relinquished by (Signature) <u>[Signature]</u>	Received by (Signature) <u>[Signature]</u>	Date <u>10/15/91</u>	Time <u>10:23</u>
Relinquished by (Signature) _____	Received by (Signature) _____	Date _____	Time _____

Analysis laboratory should complete "sample cond. upon receipt" section below, sign, and return copy to Shipper

Sample Number	Sample Type	No. of Cont.	Site Identification	Date Sampled	Analysis Requested	Sample Cond. Upon Receipt
MW-1	WTR	3-40ml.		10/14/91	TPH(g) + BTEX	cold, ok ↓
MW-1	WTR	2-1l.		"	TPH (d)	
MW-1	WTR	2-1l.		"	SS 20	
MW-2	WTR	3-40ml		10/14/91	TPH (g) + BTEX	
MW-2	WTR	2-1l.		"	TPH (d)	
MW-2	WTR	2-1l.		"	SS 20	

Remarks: \_\_\_\_\_  
\_\_\_\_\_

# CHROMALAB, INC.

Analytical Laboratory (E684)

5 DAYS TURNAROUND

October 22, 1991

ChromaLab File No.: 1091137

SJV CONSULTANTS

Attn: K. A. Madenwald

RE: Two water samples for Gasoline/BTEX, Diesel, and Oil & Grease analyses

Project Name: MAYER PROPERTIES

Project Number: 0191022.00

Date Sampled: Oct. 14, 1991

Date Submitted: Oct. 15, 1991


Date Extracted: Oct. 18-21, 1991

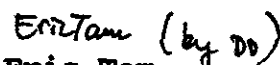
Date Analyzed: Oct. 18-21, 1991

## RESULTS:

Sample I.D.	Gasoline ( $\mu\text{g}/\text{l}$ )	Diesel ( $\mu\text{g}/\text{l}$ )	Benzene ( $\mu\text{g}/\text{l}$ )	Toluene ( $\mu\text{g}/\text{l}$ )	Ethyl Benzene ( $\mu\text{g}/\text{l}$ )	Total Xylenes ( $\mu\text{g}/\text{l}$ )	Oil & Grease (mg/kg)
MW-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.1
MW-2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE REC.	98.0%	88.2%	89.1%	89.5%	92.0%	88.6%	----
DET. LIMIT	50	50	0.5	0.5	0.5	0.5	0.5
METHOD OF ANALYSIS	5030/ 8015	3510/ 8015	602	602	602	602	5520 B&F

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