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THE SUTTON GROUP

SOILS, FOUNDATIONS, DRAINAGE, SLOPES, CONTAINMENTS
CIVIL, GEOTECHNICAL AND ENVIRONMENTAL ENGINEERING

3708 Mount Diablo Blvd
Suite 215
Lafayette, CA, 94549

May 21, 2003

Mr. Michael Cortez
Oro Loma Sanitary District
2600 Grant Avenue
San Lorenzo, 94580

Results of Quarterly Sampling of Ground Water Monitoring Wells
Sites of Former Gasoline and Diesel Tanks
2600 Grant Ave., San Lorenzo, CA
OLSD PO No. 4911, SG File No. 3022.9 ST ID 1996

Dear Mr. Cortez:

We attach results for the 3rd round of quarterly sampling of the two ground water monitoring wells installed last October in the parking lot of the District's Engineering Department office building. This work has been performed in accordance with the Work Plan for this project that was approved by Alameda County Health Care Agency's Environmental Protection Division (ACEP) in their letter dated August 27, 2002.

Additionally, at the request of Ms. Eva Chu of ACEP in the meeting on April 18, the monitoring well at the location of the former diesel tank was sampled. Those results are attached too. That well was previously sampled in 1996.

Figure 1 is a plan of the District's facilities at the foot of Grant Avenue in San Lorenzo. The plan shows the relative locations of the former gasoline and diesel tanks to the sewage treatment plant and the District's offices.

Sampling Results

Gasoline Tank Area

On April 28, 2003, ground water depths were measured in monitoring wells MW-4 and MW-5 the two wells sampled, and in MW-2, the down gradient well . Water samples were collected from wells MW-4 and MW-5 only, in accordance with the approved work plan.

The attached Table 1 summarizes the ground water elevation data collected to date. Winter rains have further raised the ground water levels, as was previously noted in the January sampling. The gradient direction remains generally towards Grant Avenue but has turned slightly to the west, though still in accordance with our model.

Figure 2 is a survey plan for the general area of the former gasoline tank, upon which the ground water elevations and calculated gradient direction have been plotted.

Table 2 is a summary of the analytical results. Analyses were performed by GCMS in according to EPA method 8260B. The relatively high concentrations of some analytes has apparently interfered with quantitation of low levels of others. Generally the contaminant levels are generally less than in the initial sampling. The laboratory report is appended, as are sampling event field sheets.

Diesel Tank Area

The monitoring well at the location of the former diesel tank was sampled for the first time since March, 1996. The ground water depth was 1.47 feet below the rim. Unfortunately the only historic record of previous groundwater level was for the February 1, 1995 sampling, which was 0.85 feet from TOC, equivalent to 1.20 feet below the rim. The well location is shown on Figure 1.

The well was purged and sampled, and analyzed for TPH as diesel. The presence of 87µg/l was substantially lower than the 1996 reading and lower than the historic readings. Table 3 is a tabulation of sample results this firm made in March 1996 and in April 2003. Appended is Table 6 taken from our 1996 work plan showing sampling results prior to that time. Historically, the well has no detection of BTEX.

Conclusions and Future Sampling

The sample from the diesel tank well shows a very low presence of diesel, at 87µg/l it is less than 20% of the reading made in 1996. We recommend that The District petition ACEP for closure of the diesel tank site without further sampling.

The 4rd quarterly water sampling for the two gas tank area wells MW$ and MW5 is scheduled to be in July, 2003. Ms Chu of ACEH in the April 18 meeting requested sampling of all 5 wells in July, including analysis for lead. However, as of this date, no letter formally requesting that additional sampling has been received. We could contact Ms. Chu on The District's behalf, should you so request.

A copy of this report has been sent directly to Ms. Chu at ACEH in Alameda..

We appreciate the opportunity to be of continued service to The District. Please call me if you have questions or if I can assist you in any other way.

Yours truly,

THE SUTTON GROUP

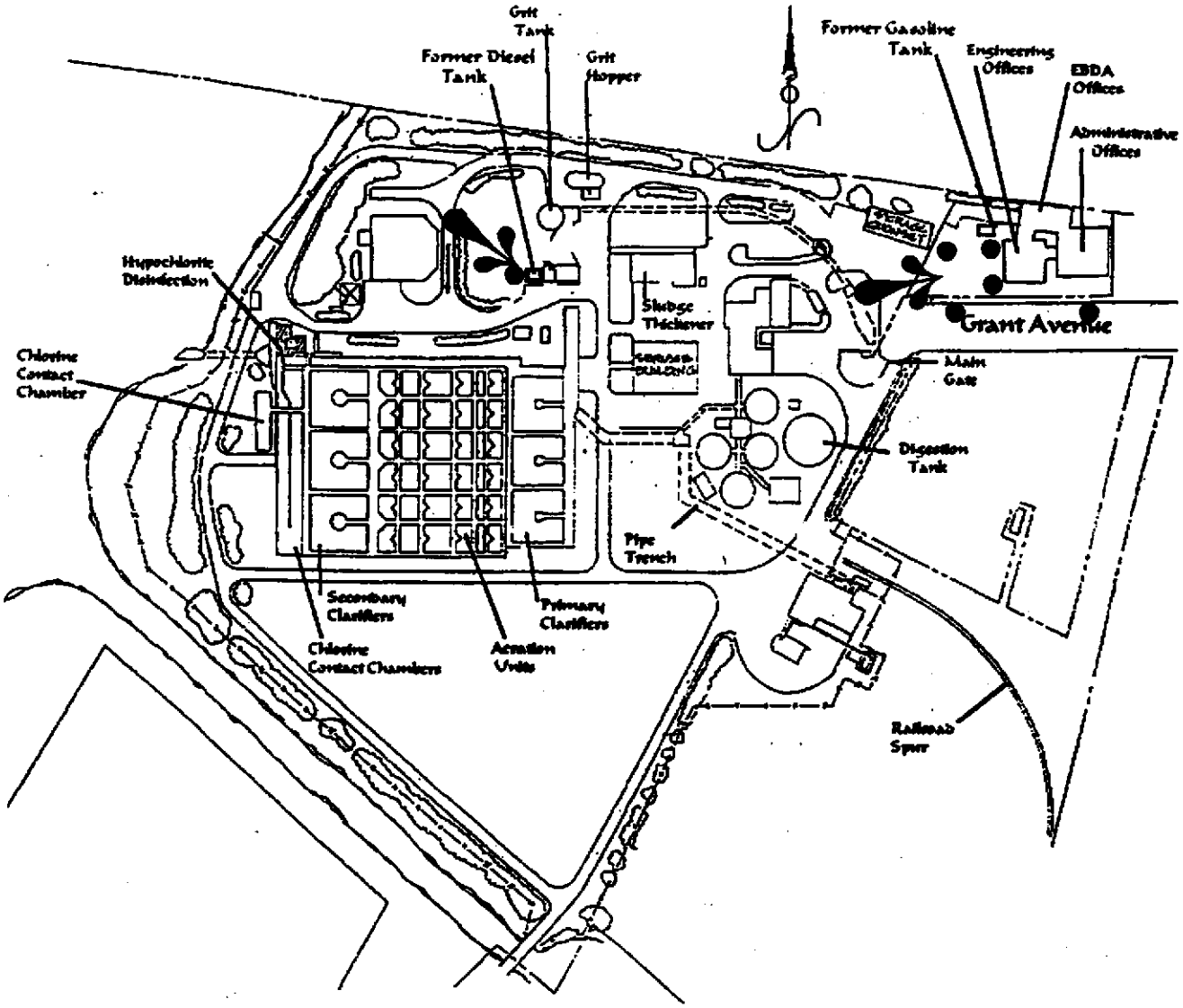
John R. Sutton, PE
Geotechnical Engineer No 812
License valid through 12/31/2006

Attachments:

Figure 1, Site Plan
Figure 2, Plan, Gasoline Tank Area
Table 1 Ground Water Elevations, Gasoline Tank Area
Table 2 Summary of Water Sample Analyses: MW 4, 5.
Table 3 Summary of Water Sample Analyses Diesel Tank Area
Analytical Reports: R. J. Lee Group, Inc.
Table 6, Diesel Tank Well Results from 1996 work plan

Two Copies Sent

One copy sent to Ms. Eva Chu at Alameda County Health Dept.

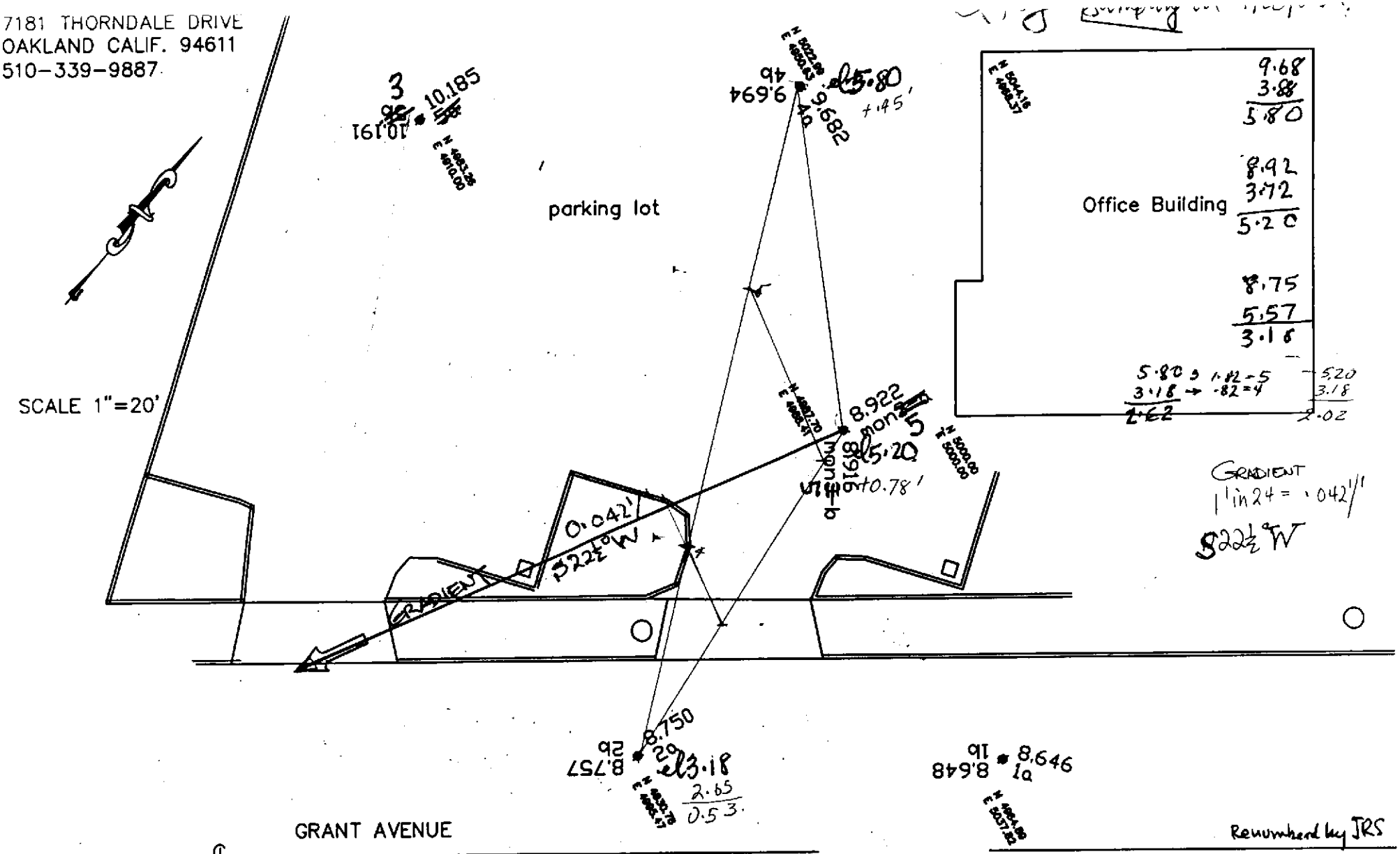


SITE PLAN

SCALE 1 IN. TO 250 FEET, APPROX

THE SUTTON GROUP. *3708 Mount Diablo Blvd, Ste 215* *Lafayette, CA, 94549* *925 284-4208*	**SITE PLAN** **ORO LOMA SANITARY DISTRICT** **San Lorenzo, California**	*PROJECT No3022.10* ***FIGURE 1*** 5/21/03

7181 THORNDALE DRIVE
OAKLAND CALIF. 94611
510-339-9887



ORO LOMA SANITARY DISTRICT

2600 GRANT AVENUE

SAN LORENZO, CA

• monitoring wells (typical of 5)

note: two elevations are given at each well rim.

TABLE 1

GROUND WATER ELEVATIONS

All measurements are in feet

Monitoring Well ID	*Rim Elevation* *	*Initial Sampling, 10/21/02*	*2nd Quarterly 1/28/03*	*3rd Quarterly Sampling, 4/28/03*		*4th Quarterly Sampling,*	
		Ground Water Elev'n	*Ground Water Elev'n.*	*G Water Elev'n.*	*Change Since Prev. Reading*	*G Water Elev'n.*	*Q'terly Change*
MW 1	8.65	1.72	2.23	Not Measured			
MW 2	8.75	2.04	2.65	**3.18**	+0.53		
MW 3	10.19	3.21	4.94	**Not Measured**			
MW 4	9.68	3.58	5.35	**5.80**	+0.45		
MW 5	8.92	2.84	4.42	**5.20**	+0.78		
Gradient, Direction		S21°E @ .016 ft/ft	S23°E @ .033 ft/ft	**S22½°W @ .042 ft/ft**			

* Basis of elevations, Alameda County bench mark "Grant –Phil" at intersection of Grant Avenue and Phil Drive.

Elevation = 2.175meters, msl = 7.136 feet.

TABLE 2

SUMMARY OF WATER SAMPLE ANALYSES: MONITORING WELLS

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BTEX, MTBE

EPA METHOD 8260B/5030Bm

RESULTS IN µg/L (ppb)

Well ID	*Sample Date*	*Benzene*	*Toluene*	*Ethyl Benzene*	*Xylenes (total)*	*MTBE*
MW 4	10/21/2002	5,800	6,200	3,500	18,000	140
MW-4	1/28/03	7,200	3,500	2,700	15,000	130
MW-4	4/28/03	5,700	850	ND<120	10,000	200
MW 5	10/21/2002	12,000*	20,000*	1,600*	7,100*	ND
MW-5	1/28/03	9,100	6,600	720	4,000	ND
MW-5	4/28/03	12,000	8,300	ND<250	2,100	ND<250

For reporting limits refer to laboratory certificates appended.

TABLE 3

SUMMARY OF WATER SAMPLE ANALYSES:

FORMER DIESEL TANK AREA MONITORING WELL

TOTAL PETROLEUM HYDROCARBONS AS DIESEL,

EPA METHOD 8015C

RESULTS IN µg/L (ppb)

Sample Date	*TPH as DIESEL*
3/ 8/1996	**340**
4/28/2003	**87**

For reporting limits refer to laboratory certificates appended.

RJ LeeGroup, Inc. TAT- 5/6/03

ACC3046446

F182095

Request for Laboratory Services

For RJ Lee Group Use Only	Page
Project No.	
Date Logged	By

Report Results To

Name: JOHN SUTTON Title:
Company: The SUTTON GROUP
Mailing Address: 3708 Mt. Diablo Blvd, Suite 215
City: Lafayette State: CA Zip: 94549
Telephone: 925-284-4205 Fax: 925-284-4159

Purchase Order No.: Client Job No.: 3033.10

Send Invoice To

Name: Same
Company:
Address:
City: State: Zip:

Date Results Required | Rush Charges Authorized? Yes ☐ No ☒ | Phone Results ☐

Special Instructions: (Method, limit of detection, etc.)
RWQCB MDLs
*Explanation of Preservative:

(Complete if applicable)
☐ Drinking Water
CA State Where Collected

ANALYSIS REQUESTED
(Enter analysis type and check the box to indicate request: Enter a 'P' if Preservative added.)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	BTEX/MTBE by 8260	Diesel/BTEX	FOR LAB USE ONLY
042803-4	4/28/03	Water	VOA	2			~ 7ppm Benzene
042803-5	4/28/03	Water	VOA	2			~ 9ppm Benzene
042803-D1	4/28/03	Water	1 ltr Amber	1			~ 240ppb Diesel (1996)

Chain of Custody

Relinquished by: Date: 4/28/03 Time: 1400
Relinquished by: Date: Time:
Method of Shipment: Date: Time:

Received by: Date: 04-28-03 Time: 2:00
Received at Lab by: Date: Time:
Sample Condition Upon Receipt: ☐ Acceptable ☐ Other (explain on reverse)

Please return completed form to one of RJ Lee Group's Laboratories:

350 Hochberg Road
Monroeville, PA 15146-1516
(724) 325-1776
(724) 733-1799 - Fax

530 McCormick Street
San Leandro, CA 94577
(510) 567-0480
(510) 567-0488 - Fax

10503 Battleview Parkway
Manassas, VA 20109
(703) 368-7880
(703) 368-7761 - Fax

RJ LeeGroup, Inc.	Client Project ID: #ACC304646	Date Sampled: 04/28/03
530 McCormick Street		Date Received: 04/30/03
San Leandro, CA 94577	Client Contact: Ben Schiefelbein	Date Extracted: 05/12/03-05/19/03
	Client P.O.: #C-3702	Date Analyzed: 05/12/03-05/19/03

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0304450

Lab ID	0304450-001B	0304450-002B			Reporting Limit for DF =1	
Client ID	042803-4	042803-5				
Matrix	W	W				
DF	250	500			S	W
Compound	**Concentration**				ug/kg	µg/L
Benzene	5700	12,000			NA	0.5
Ethylbenzene	ND<120	ND<250			NA	0.5
Methyl-t-butyl ether (MTBE)	200	ND<250			NA	0.5
Toluene	850	8300			NA	0.5
Xylenes	10,000	2100			NA	0.5
Surrogate Recoveries (%)						
%SS1:	105	103				
%SS2:	104	103				
%SS3:	106	109				
Comments	h	h				

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

RJ LeeGroup, Inc.	Client Project ID: #ACC304646	Date Sampled: 04/28/03
530 McCormick Street		Date Received: 04/30/03
San Leandro, CA 94577	Client Contact: Ben Schiefelbein	Date Extracted: 04/30/03
	Client P.O.: #C-3702	Date Analyzed: 04/30/03

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0304450

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0304450-003B	042803-D1	W	87,b	1	98.3

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water and vapor samples are reported in µg/L, wipe samples in ug/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all TCLP / STLC / SPLP extracts in µg/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent / mineral spirit.

TABLE 6
DIESEL TANK AREA
SUMMARY OF GROUND WATER SAMPLING RESULTS

Concentrations reported in mg/l (ppm)

Sample Number	Date Sampled	TPH-Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes
	Results prior to excavation of petroleum affected soils					
MW-1	28-Jan-93	0.59	<0.0005	<0.0005	<0.0005	<0.0005
	29-Jul-93	0.72	<0.0005	<0.0005	<0.0005	<0.002
	Results after excavation of petroleum affected soils					
MW-1	01-Dec-93	0.3	<0.0005	<0.0005	<0.0005	<0.002
	duplicate	0.3	<0.0005	<0.0005	<0.0005	<0.002
	15-Mar-94	0.2	<0.0005	<0.0005	<0.0005	<0.002
	duplicate	0.2	<0.0005	<0.0005	<0.0005	<0.002
	15-Jun-94	0.17	<0.001	<0.001	<0.001	<0..001
	01-Feb-94	0.38	<0.0005	<0.0005	<0.0005	<0.002

Source: Levine Fricke report dated March 17, 1995

sg\olsd\30227T6.doc

4/28/03 @ OLSD

MW-2 in Grant (Westerly of the 2)

Water @ 4" below well top in Street. Entry melted in unknown

May have been over top of casing. May have entered

Well.

Well top area was bailed down w/ a cup

prior to sampling

MW2 — ~~Sounded~~ Sampled 950AM 66 7/8" from Rim

= 5.57'

MW5 " 1015AM 44 5/8 = 3-8 5/8

3.72'

MW4 (nearest Tank) " 1020AM 46 7/8 = 3.88'

from Rim

SAMPLE COLLECTION LOG

Project Name	OLSD Gasoline area
Project Number	3022.10
Sampler Name	Sutton
Date of Sample Collection	4/28/03 Monday

Sample Number	MW2
Sample Location	
Sample Media	Soil/ Water/ other
Site Conditions	Partly Cloudy. No rain @ time of sampling
	Water depth 6 3/4" from TOC
Sample Collection Depth	= 66 7/8" from Rim Lid.
Sample Container	Depth = 5.57'
Intact or Disturbed Sample	No sample Collected.
Sample Material Description	
Collection Procedure	
Proposed Lab. Analysis	

SAMPLE COLLECTION LOG

Project Name	3033.10 OCSD
Project Number	
Sampler Name	Sutton
Date of Sample Collection	4/28/03 Mon

Sample Number	
Sample Location	MW5 @ NW cor of Energy Bldg
Sample Media	Soil/ Water/ other
Site Conditions	Sunny 10/SAM
Sample Collection Depth	44.5' TOC casing = 46 5/8 from Rim = 3.72' w
Sample Container	2-40 ml AMBER VOA
	TD = 14.7' = 11' water = 1.7 gals / casing Vol x 3 = 5.1 gal
Intact or Disturbed Sample	
Sample Material Description	
Collection Procedure	@ 1035 AM 10:50 AM bailed 4 gal by Water was initially turbid, w/ moderate sulfide odor. Recovery is slow. Water becomes black (bay mud) less odor Sample collected @ 1135 hrs Turbid (gray) # 042803-5 2x40ml VOA
Proposed Lab. Analysis	Gas BTEX MTBE by #8260

SAMPLE COLLECTION LOG

Project Name	OLSD
Project Number	3033.10
Sampler Name	SUTTON
Date of Sample Collection	4/28/03

Sample Number	042803-D1 Diesel Tank
Sample Location	MW-D1
Sample Media	Soil/ Water/ other (Water circled)
Site Conditions	Sunny/PC. Strng Breeze
Sample Collection Depth	~4'
Sample Container	1-1 l amber bottle
Intact or Disturbed Sample	
Sample Material Description	
Collection Procedure	@ 1210pm
	Standing water in 4" ⌀ well @ 1'1½ TOC = 1'5½ Rim
	= 1.12 = 1.47'
	Welldepth = 14'2" TOC
	V of water = 13' @ 4" = 13X0.65 = 7.85 gal
	X3 = 24 gal.
	30 gal. drawn @ 1pm. Water @ 6' TOC
	Sampled @ 1310 – Water had recov to 1.5' depth?
	Lv site @ 1330
Proposed Lab. Analysis	Diesel BTEX

15/16 Belts