Versar INC.

MAY 17 2001

May 15, 2001

Mr. Amir K. Gholami, REHS
Hazardous Materials Specialist
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94502-6577

RE: ADDITIONAL RESEARCH AND EVALUATION
2585 Nicholson Street in San Leandro, California (STID 3570)

Dear Mr. Gholami:

In response to your letter dated March 28, 2001 to Ms. Donna Proffitt of Bank of America, Versar has performed the additional research and evaluation you requested in connection with the proposed closure of the above-referenced property (subject property). Specifically, your March 28, 2001 letter requested further information on five topics: 1) the location and use, if any, of groundwater wells in close proximity to the subject property, including performance of a door to door well survey of adjacent properties; 2) evaluation of soil impact as part of the site risk assessment; 3) consideration of the toxicity and possible synergistic effect of total petroleum hydrocarbons as gasoline (TPHg) at the subject property; 4) potential preferential pathways such as conduits for contaminant migration; and 5) evidence of plume stability. Each of these issues are addressed below. In addition, numerous previous correspondences have addressed the need for monitoring total petroleum hydrocarbons as diesel (TPHd) and stoddard solvent (TPHss). Justification for no longer monitoring TPHd and TPHss is also presented in this document.

1. WELL SURVEY

Versar contacted the County of Alameda Public Works Agency (CAPWA) to receive available information for all wells within 0.5 miles of the subject property. Information received from the CAPWA is included as Attachment 2 to this document, and is summarized on Figure 1 and Table 1 of Attachment 1.

The CAPWA provided a list of 177 wells in the vicinity of the subject property. This list included wells outside the 0.5 mile search radius. The vast majority of these wells were for monitoring

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purposes only. Versar's review of the documentation identified 12 industrial, irrigation, or domestic wells within 0.5 miles of the subject property. The approximate location of these wells is presented on Figure 1 (Attachment 1). The status of the supply wells were not provided. The nearest supply wells to the subject property are located approximately 0.32 miles northwest of the subject property, along Marina Boulevard, which according to CAPWA representatives, is synonymous with First Avenue (see Table 1, Attachment 1). A number of other irrigation and domestic wells were identified along 136th Avenue, which is a residential neighborhood between 0.34 and 0.47 mile southwest of the subject property. While these wells are located in a cross to down gradient direction from the subject property, the data gathered from the subject property shows only trace migration of constituents of concern from the subject property. Potential migration of constituents of concern from the subject property to the identified wells is considered extremely unlikely.

In addition, on April 12, 2001, Versar performed the door to door survey to determine if unregistered wells exist adjacent to the subject property. A list of addresses, tenants, and representatives interviewed during the inquiry is included as Table 2 of Attachment 1. As indicated in Table 2, none of the parties interviewed were aware of any production wells on their property. One tenant, Acme Security Systems, was not available during the inquiry. The building appeared to consist of a small office space, and no evidence of manufacturing activities were identified. Based on the observed use, the potential for this property to use production wells is considered extremely unlikely. Furthermore, this property is located up gradient from the subject property.

2. SOIL IMPACT

Pursuant to your request, Versar performed a supplementary risk-based corrective action (RBCA) assessment of the subject property which included historic aromatic hydrocarbon concentrations from existing soil samples (HAI, 1992). Soil samples from a depth of four feet below ground surface (bgs) were used in the evaluation. Soil samples collected by HAI and McLaren/Hart from depths of five and six feet bgs were not used in the analysis since, in light of existing groundwater levels at the subject property, concentrations detected at these depths are most likely indicative of historical groundwater migration (see "Plume Characterization and Stability" section of this document). The use of the aromatic hydrocarbons (benzene, toluene, ethylbenzene, and total xylene isomers, or BTEX) and not total petroleum hydrocarbons data is also discussed later in this document (see "Possible Synergistic Effect of TPHg" section of this document).

Seven soil samples were collected by HAI from four feet bgs for analysis by EPA Method 8020 (HAI, 1992). Figures and tables for soil samples collected by HAI are included in Attachment 4 of

this document. The data was entered into the RBCA spreadsheet software package, RBCA Toolkit for Chemical Releases, version 1.0a, by Groundwater Services, Inc. (GSI); this is the same software used for Versar's initial RBCA assessment performed in January 2000 and updated RBCA assessment performed in December 2000. The data was normally distributed, and 95 percent upper confidence limit (95 UCL) values were used to assess carcinogenic risk and toxicity. Exposure pathways considered were volatilization of the constituents of concern (BTEX) from affected soils to indoor and outdoor air to on-site commercial operations. Cumulative and individual risks from the COCs were considered. The duration of exposure were the defaults used in our previous assessment: 25 year exposure duration at 250 days per year. The target health risk limits were set at $1x10^{-5}$ for individual and cumulative effects of Class A/B carcinogens. The information described in this section is presented in greater detail on the GSA Toolkit worksheets included in Attachment 3.

The results of the RBCA analysis identified a risk exposure of $1.5x10^{-6}$ for indoor workers from volatilized benzene in soil. The identified risk exposure for cumulative effects of Class A/B carcinogens was also $1.5x10^{-6}$. Both these risk exposure values are below the targeted risk for workers in industrial areas of $1x10^{-5}$.

Based on the results of the RBCA analysis, constituents of concern do not pose a risk to workers on the subject property under an industrial setting. It should be noted that the RBCA calculated risk for indoor workers is extremely conservative. As shown on the attached HAI map (Attachment 4), the locations of greatest benzene concentrations in soil are not beneath structures. The benzene concentration measured at boring 19, which was located beneath the building structure, was 680 micrograms per kilogram (ug/kg). This concentration is approximately half the 95 UCL concentration used in the risk evaluation. Furthermore, the targeted risk of $1x10^{-5}$ is significantly lower than levels used by the U.S. EPA for Superfund Sites of $1x10^{-4}$ (U.S. EPA, 1996).

3. POSSIBLE SYNERGISTIC EFFECT OF TPHg

The methodology applied in the risk assessments followed the published guidance of the U.S. EPA Office of Underground Tanks which states the most appropriate method for evaluation of carcinogenic risk from petroleum hydrocarbons is to use indicator compounds. BTEX is an appropriate and relevant indicator compound for TPHg (Gustafson, J.B., 1999).

4. POTENTIAL PREFERENTIAL PATHWAYS

In their July 14, 1999 and October 29, 1999 letters, the Alameda County Health Care Services (ACHCS) requested information regarding the depth of gas, electric, and storm drain trenches adjacent to the subject property, as depicted in Figure 2 of Versar's, June 30, 1999, *Monitoring Well Installation and Groundwater Sampling Report.* Utility information obtained during this monitoring period is described below.

During the October 1999 monitoring period, Versar did not receive responses from underground utility operators in the vicinity of the subject property. To obtain the information requested by ACHCS, Versar measured the depth to the bottom of the access point (valve box, drop inlet, or manhole) for each utility that could be accessed at and adjacent to the Site. The bottom of the access point is typically deeper than the pipeline or conduit. During the survey, Versar identified an additional utility (sanitary sewer) near the centerline of Nicholson Street, running parallel with the roadway. The greatest depth to the bottom of an access point was measured to be 5.5 feet bgs for this sanitary sewer line. The next deepest utility/conduit was measured to be 3.5 feet bgs.

Based on this information and highest depth to groundwater identified beneath the subject property (>4 feet bgs), Versar believes that the only utility with the potential to influence groundwater migration is the sanitary sewer in the center of Nicholson Street. This sanitary sewer is located up gradient from the site source area. Based on this information, there is no evidence that utilities are or will affect plume migration at the subject property and no further assessment is warranted.

With respect to naturally occurring conditions, lithology encountered during drilling at the subject property was relatively heterogenous. Typically, silty clays were observed to a depth of approximately six feet bgs. First encountered groundwater was observed within a silty sand unit located between approximately six and eight feet bgs. Silty clays were observed beneath the water-bearing zone. Evidence of stream channel deposits which would result in preferential groundwater migration were not observed.

5. PLUME CHARACTERIZATION AND STABILITY

Groundwater monitoring has been performed at the subject property since 1992. The groundwater monitoring well network (see Figure 2, Attachment 1) includes a source area monitoring well (MW-1), an up gradient monitoring well (MW-2), a cross gradient monitoring well (MW-3), and two down

gradient monitoring wells (MW-4 and MW-5). MW-1 has been sampled on 19 separate occasions, while the remaining wells have been monitored on eight separate occasions.

In summary, analytical results from periphery monitoring wells (MW-2 through MW-5) have been relatively consistent, and show low to trace levels of TPHg and BTEX compounds. Most importantly, constituents of concern in the down gradient direction have been primarily at or below the analytical detection limits. The highest concentrations of TPHg and BTEX compounds exist in source area monitoring well MW-1, which is located immediately down gradient of the former release. Occasional concentration spikes of TPHg and BTEX have been observed in MW-1 during the quarterly monitoring episodes. These spikes have not resulted in concentration increases in the down gradient direction. Natural attenuation processes, which have been shown to be occurring at the site, are effectively controlling migration of petroleum constituents. Historical data from the subject property provides various reasons for these concentration spikes, as summarized in the following paragraphs.

In reviewing the HAI subsurface investigation report (HAI, 1992), it is apparent that released petroleum constituents migrated on top of the groundwater table outside the area of soil excavation, as evidenced by relatively low concentrations of petroleum constituents in 4-foot samples (HAI, Figure 5, Attachment 4) and relatively high concentrations of petroleum constituents in the 6-foot sample (HAI, Figure 6, Attachment 4). HAI reported the depth to groundwater at approximately 6.6 feet bgs. This data indicates a petroleum smear zone has occurred within the soil vadose zone through the migration of petroleum constituents on the groundwater table. Subsequently, the depth to groundwater has increased in the area. Between April 1999 and January 2001, the depth to groundwater has ranged from 4.95 feet bgs to 5.85 feet bgs. Consequently, the petroleum smear zone has become saturated.

Soil characteristics observed during installation of the monitoring wells identified primarily silty clay material (CL) to a depth of 6 feet bgs (see Appendix A, Versar, 1999). As such, the smear zone occurs in fine-grained materials which would have a propensity to retain pockets of residual petroleum constituents, which ultimately would result in some fluctuation of groundwater concentrations. Figures 3 and 4 (Attachment 1) present graphic comparisons of depth to groundwater verses TPHg and benzene concentrations. As shown, some correlation between the groundwater concentrations and elevation is apparent, particularly between April 1999 and January 2000. However, an inverse effect is apparent between April 2000 and January 2001. This inverse correlation could be a result of delayed effects associated with dissolution from multiple residual source areas and monitoring from a single location.

Figures 5 and 6 of Attachment 1 present concentrations of TPHg and benzene in MW-1 over time. Figure 5 provides data from 1992 to present, while Figure 6 provides data subsequent to installation of the monitoring well network (April 1999). As shown on Figure 5, with the exception of some concentration spikes, concentrations of TPHg and benzene are generally lower during the 1992 through 1995 period of monitoring, when compared to the 1999 through 2001 period of monitoring. During McLaren/Hart's characterization activities in early 1998, hydrocarbon absorbent materials were observed within MW-1. While detailed information about the use of absorbent materials within MW-1 was not identified in historic assessment documents, the presence of these materials could account for periods of lower concentrations of TPHg and benzene between 1992 and 1995. As shown on Figure 6, concentrations of TPHg and benzene show greater consistency between 1999 and 2001, and are relatively consistent for a source area monitoring well where residual petroleum hydrocarbon impact exists.

Based on Versar's review of the data, concentrations changes in source area monitoring well MW-1 are likely attributable to residual impact to former vadose zone clays. The data indicates that concentration changes observed have not adversely affected concentrations in the down gradient direction. From a plume migration potential, the data supports the assertion that the overall plume is stable, and natural attenuation processes continue to control migration of petroleum constituents.

6. OCCURRENCE OF TPHd AND TPHss

TPHd and TPHss were included in the suite of analyses performed on MW-1 between 1992 and 1995, as shown on Table 4 (Attachment 1). Relatively low levels of TPHd and TPHss were detected in the groundwater samples. Versar believes the TPHd and TPHss reported during these earlier sampling episodes are actually weathered TPHg. However, chromatograms for these samples are not available for a more detailed interpretation. Subsequent to this initial monitoring period, and at your request, TPHd has been analyzed in all monitoring wells on two occasions (April and July, 1999), in monitoring well MW-3 on one additional occasion (January 2000), and in monitoring well MW-1 on two additional occasions (January and July, 2000). TPHss was analyzed in monitoring well MW-1 on one additional occasion (October 2000). The majority of these additional analyses have not detected TPHd and TPHss. The concentrations of TPHd and TPHss have been consistently and significantly below concentrations of TPHg, and represent lesser constituents of concern. Furthermore, cleanup objectives established by the Regional Water Quality Control Board (RWQCB) for petroleum release sites focus on BTEX compounds, primarily benzene, which is not a significant component of diesel or kerosene. Consequently, and given the relatively low concentrations identified historically, it is Versar's opinion that TPHd and TPHss are not constituents of concern for the subject property, and no further assessment of the constituents is warranted.

CLOSING

Versar respectfully requests the opportunity to meet with yourself and Mr. Peacock at your earliest convenience to discuss any comments you have regarding this submittal, and the future of the subject property. Evidence provided in this and numerous other assessment documents has shown the identified impact to not pose a risk to users of the subject property or off-site receptors. Based on this evidence, continued groundwater monitoring does not provide meaningful information, and conditional closure for the subject property appears warranted. Prior to the meeting date, if you have any questions regarding the information presented herein, please do not hesitate to call Scott Allin at (916) 863-9325. We look forward to meeting with you soon.

Sincerely,
Versar, Inc.

Scott Allin, R.E.A.
Senior Program Manager

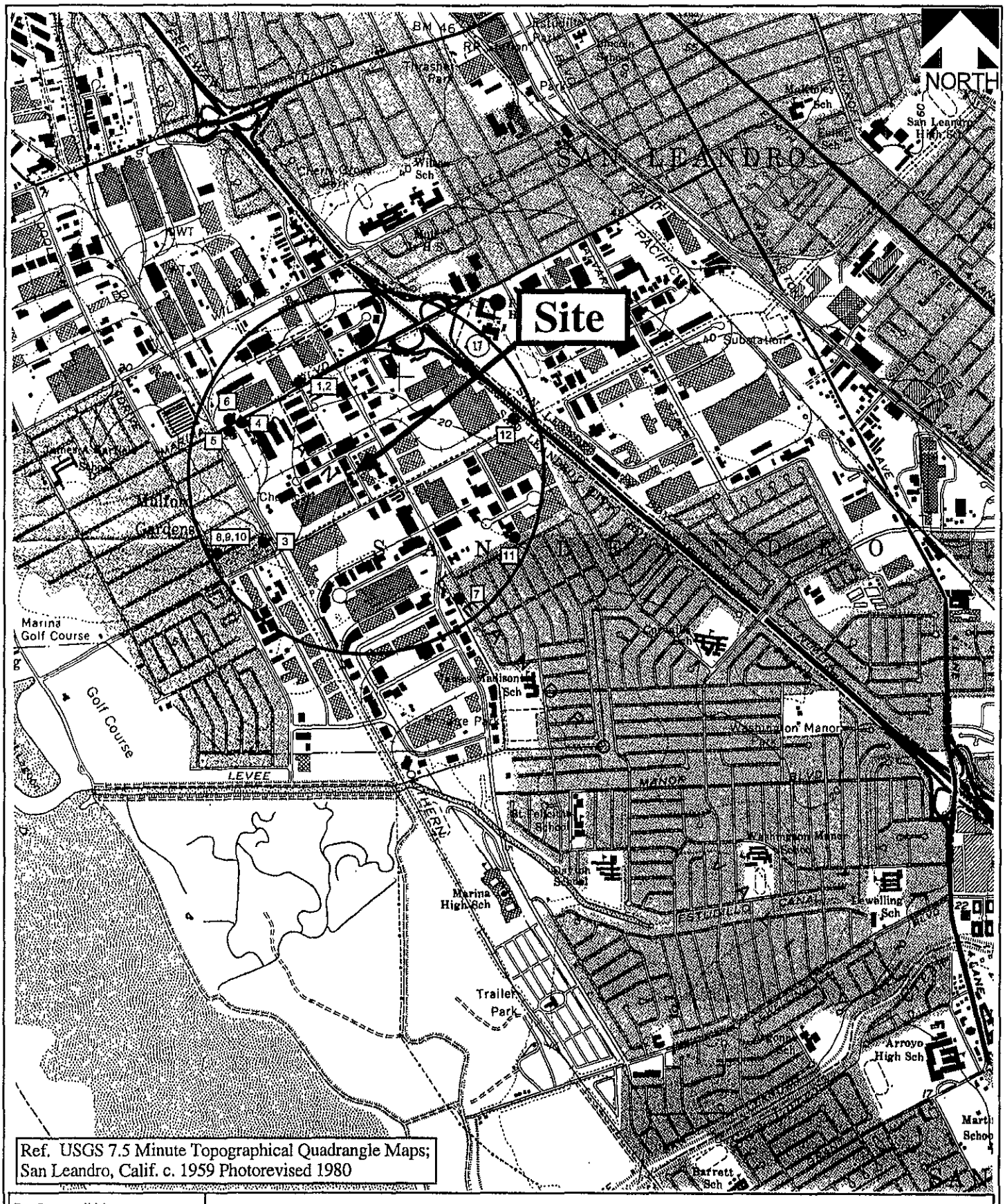
Tim Berger, R.G.
Supervising Geologist

Attachment 1 - Versar Figures and Tables
Attachment 2 - CAPWA Well Survey Information
Attachment 3 - GSA Toolkit Worksheets
Attachment 4 - HAI Soil Data (Tables and Figures)
Attachment 5 - References

cc: Ms. Donna Proffitt (Bank of America)
Ms. Janet Giannini (Bank of America)
Mr. Stuart Block (Cox, Castle & Nicholson, LLP)
Mr. Mike Bakaldin (City of San Leandro Fire Department)

ATTACHMENT 1

Versar Tables and Figures



Ref. USGS 7.5 Minute Topographical Quadrangle Maps; San Leandro, Calif. c. 1959 Photorevised 1980

Dr. By: JLV	
Date: 5/01/01	
Scale: 1 inch=2,000 feet	
Versar Project No. 4422-003	
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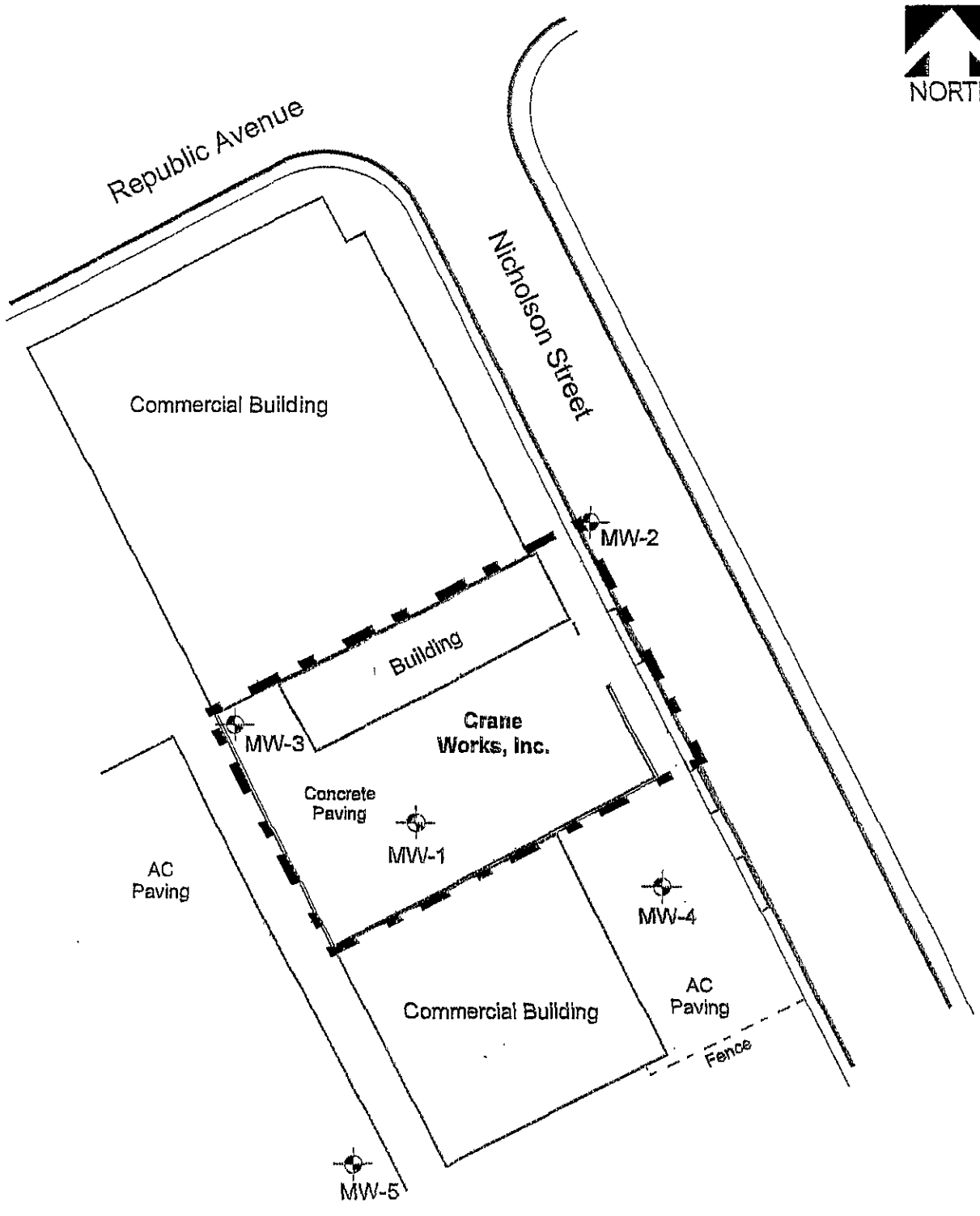
WELL LOCATION MAP

2585 Nicholson Street
San Leandro, California

Figure 1



(Scale - Feet)

0 20 40 60

Dr. By: Dale Anderson	
Date: 5/10/99	
Scale: 1 inch= 60 feet	
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SITE LAYOUT AND MONITORING WELL LOCATION MAP

2585 Nicholson Street
San Leandro, California

Figure 2

Figure 3 - Concentrations of TPHg Versus Depth to Groundwater (MW-1)

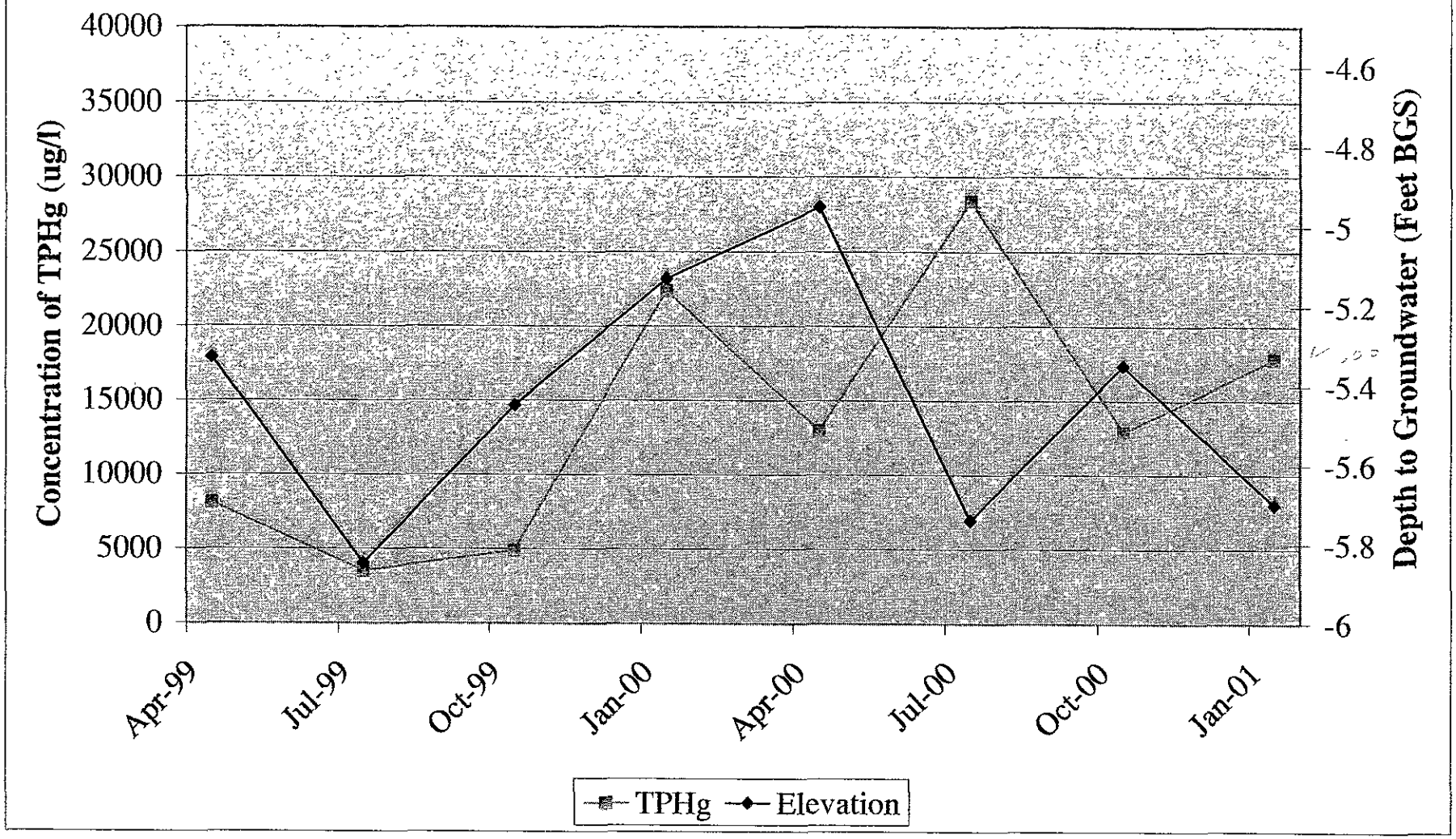


Figure 4 - Concentrations of Benzene Versus Depth to Groundwater (MW-1)

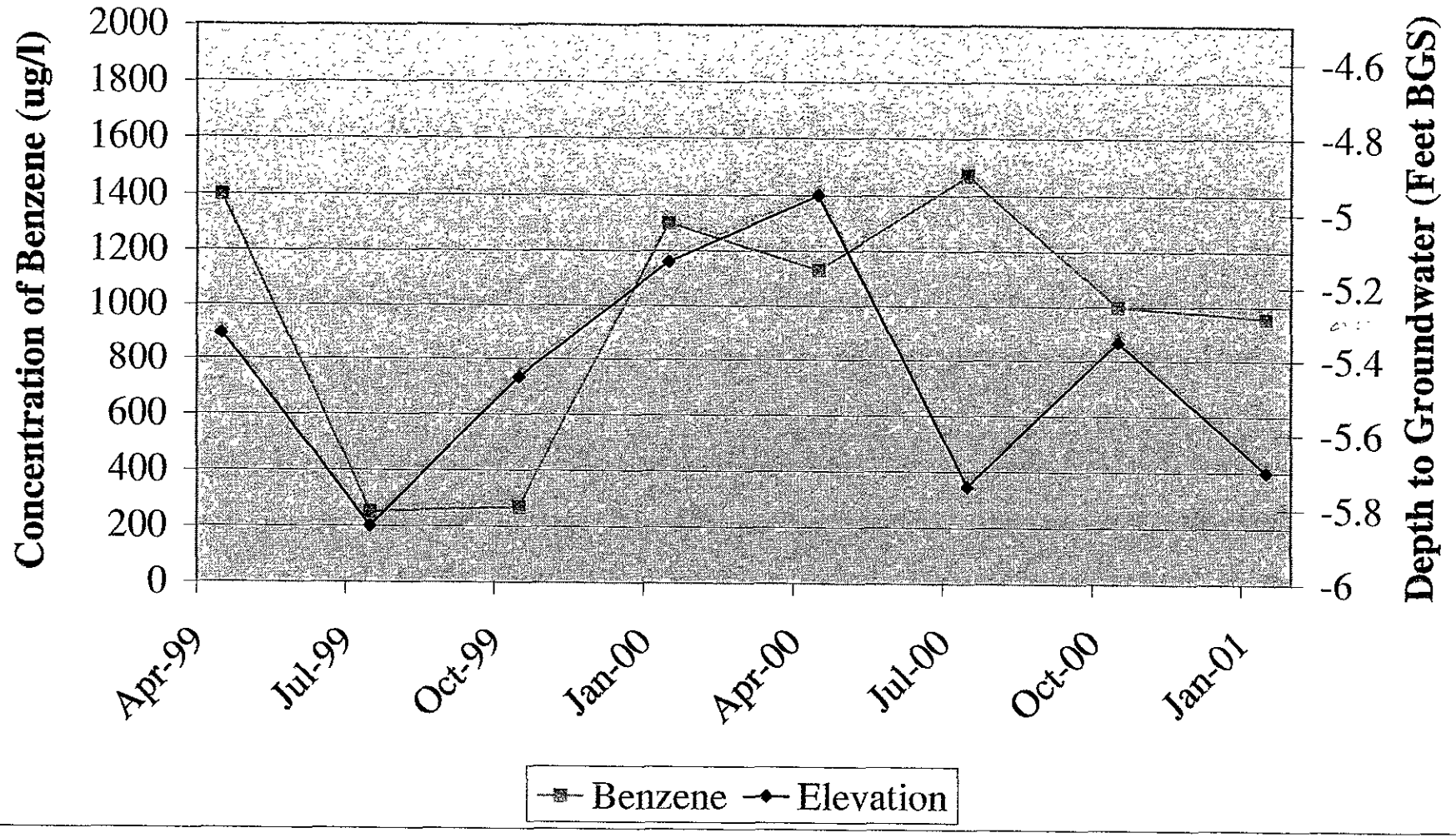


Figure 5 - Concentrations of TPHg and Benzene (MW-1, 1992 - 2001)

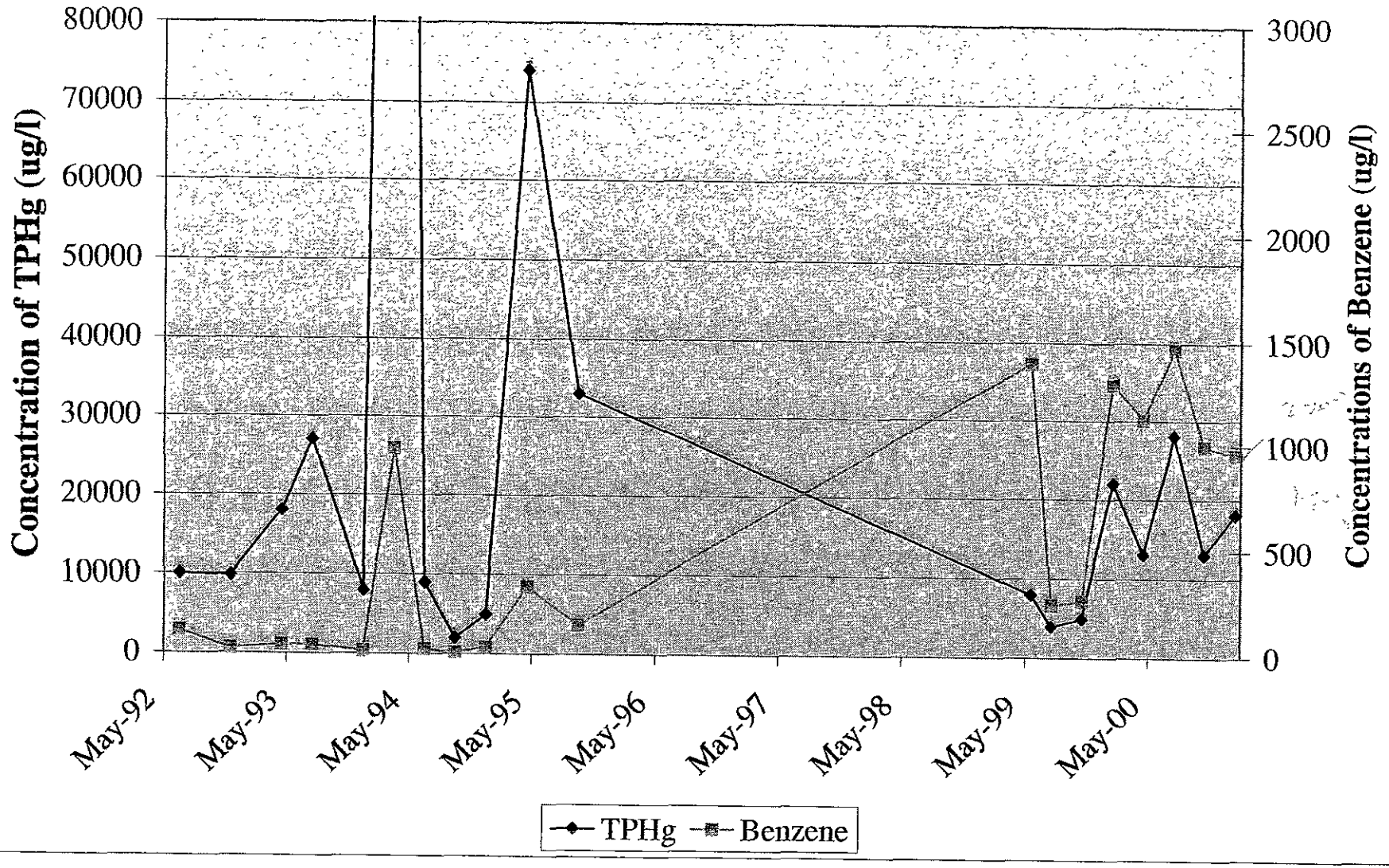


Figure 6 - Concentrations of TPHg and Benzene (MW-1, 1999 - 2001)

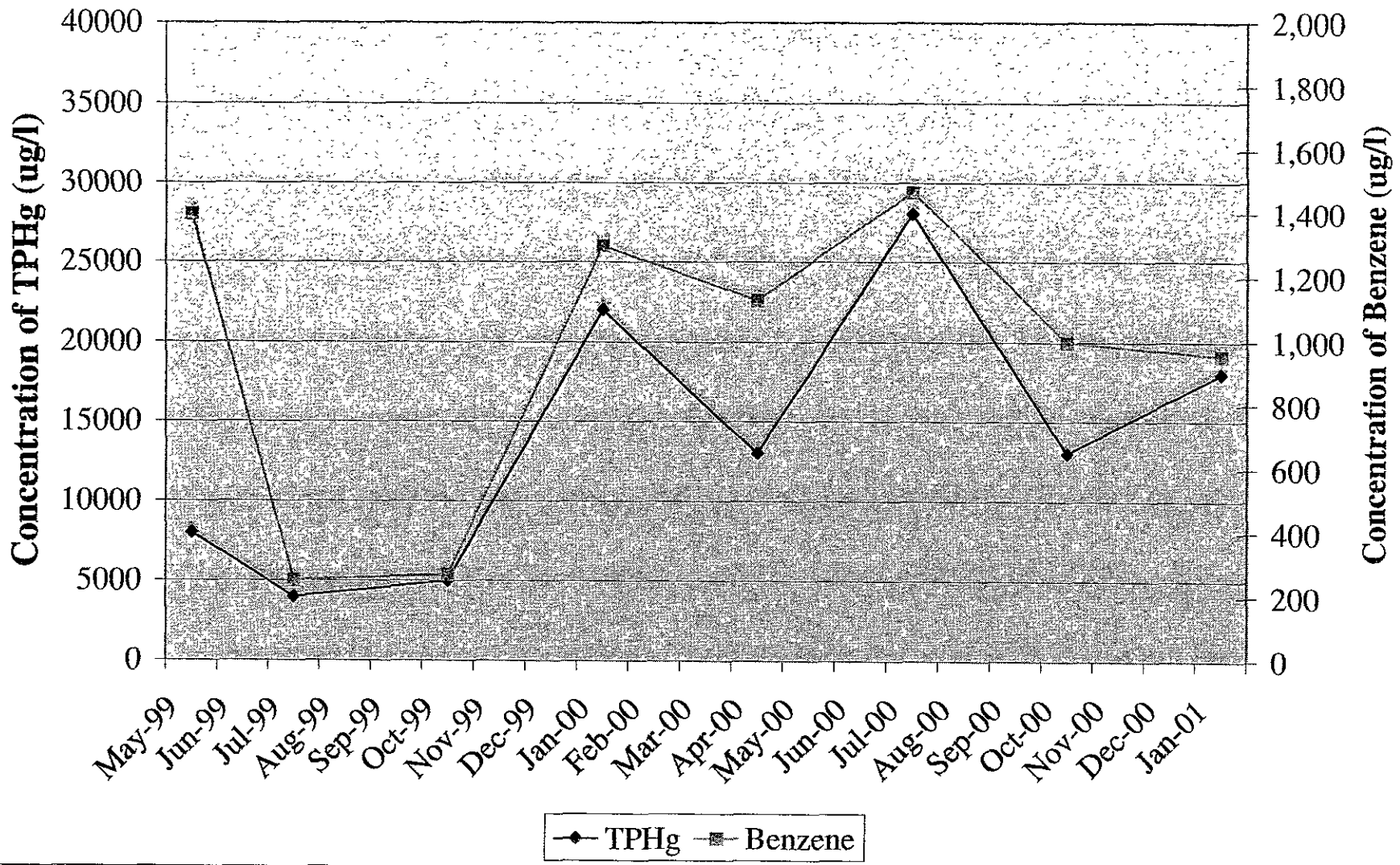


TABLE 1
Well Survey Information
2585 Nicholson Street
San Leandro, California

ID	Address	Dist/Dir (1)	Use	TD (2)	Current Occupants
1	2000 First Av. (1) (2)	0.32 Mile / Northwest	IND	840 - 1,022	Georgia Pacific.
2	2000 Marina Blvd. (1)	0.32 Mile / Northwest	IND	143 - 146	Georgia Pacific.
3	2100 W. 136	0.34 Mile / Southwest	IRR	30	Residential housing.
4	2001 Marina Blvd.	0.37 Mile / Northwest	IND	136	Listed as the Owens Corning Facility who no longer occupy the property. The property has been redeveloped and is currently occupied by Allied International, and Norcal Moving.
5	1977 First Av. (2)	0.38 Mile / West	IND	142	Same as 4.
6	1988 Marina Blvd.	0.38 Mile / West	IND	610	Georgia Pacific.
7	14319 Merced St.	0.43 Mile / Southeast	IRR	0	Residential housing.
8	Rte 18 W. 136 Av. &	0.47 Mile / Southwest	IRR	118	Residential housing.
9	2007-36 W. 136 (1)	0.47 Mile / Southwest	IRR	25 - 249	Residential housing.
10	2045 - 2420 W. 136 (1)	0.47 Mile / Southwest	IRR /DO	12 - 100	Residential housing.
11	1577 Cedar Av.	0.47 Mile / Southeast	IRR	17	Residential housing.
12	1675 Fairway Dr.	0.47 Mile / East	IRR	140	Address not found during reconnaissance.

(1) Cluster of multiple wells.
(2) According to County representatives. First Avenue was renamed Marina Boulevard.

TABLE 2
Door to Door Inquiry Information
2585 Nicholson Street
San Leandro, California

Address	Tenant	Representative	Comments
2591 Nicholson St.	Hill & Son's Quality Printing	Don Hill	No known production wells.
2597 Nicholson St.	Cagwin & Dorward Landscape Contractors	Oliver Buard	No known production wells.
2625 Nicholson St.	Little Reds Automotive	Gus Muhawieh	No known production wells.
2626 Nicholson St.	Vintage Marble Works	Anna Granados	No known production wells.
2594 Nicholson St.	Williams	Bill Moore	No known production wells.
2580 Nicholson St.	Applied Fusion	Rick Nisbet	No known production wells.
2559 Nicholson St.	Schoon Corporation	Bob Schoon	No known production wells.
2555 Nicholson St.	Unisec Incorporated	Moreen Marcus	No known production wells.
1922 Republic Ave.	Acme Security Systems	N/A	No tenants available. Property consists of a small office style building.
1946 Republic Ave.	Brandt Machine Works	Edwardo Acob	No known production wells.
1951 Fairway Drive	Winterland	Mickey Chang	No known production wells.

Table 3
Groundwater Elevation Data
2585 Nicholson Street
San Leandro, California

		Groundwater Monitoring Well					Hydraulic gradient magnitude (ft/ft)	General gradient direction
		MW-1	MW-2	MW-3	MW-4	MW-5		
Well casing elevation (feet amsl)		**15.27**	**13.69**	**15.88**	**15.25**	**16.46**	---	---
April 29, 1999	Depth to groundwater (feet toc)	5.33	3.76	5 88	5.40	6.64		
	Groundwater elevation (feet amsl)	**9.94**	**9.93**	**10.00**	**9.85**	**9.82**	**0.001**	Southeast
July 28,1999	Depth to groundwater (feet toc)	5.85	4.19	6.37	5.84	7 11		
	Groundwater elevation (feet amsl)	**9.42**	**9.50**	**9.51**	**9.41**	**9.35**	**0.001**	Southeast
	Change from previous elevation	-0.52	-0.43	-0.49	-0.44	-0.47		
October 28, 1999	Depth to groundwater (feet toc)	5 45	4.06	5.79	5.60	6.68		
	Groundwater elevation (feet amsl)	**9.82**	**9.63**	**10.09**	**9.65**	**9.78**	**0.002**	Easterly
	Change from previous elevation	0.40	0.13	0.58	0.24	0.43		
January 20, 2000	Depth to groundwater (feet toc)	5.13	3 70	5 63	5 25	6.43		
	Groundwater elevation (feet amsl)	**10.14**	**9.99**	**10.25**	**10.00**	**10.03**	**0.001**	Easterly
	Change from previous elevation	0.32	0.36	0.16	0.35	0.25		
April 13, 2000	Depth to groundwater (feet toc)	4.95	3.61	5.41	5.06	6.15		
	Groundwater elevation (feet amsl)	**10.32**	**10.08**	**10.47**	**10.19**	**10.31**	**0.002**	Easterly
	Change from previous elevation	0.18	0.09	0.22	0.19	0.28		
July 20, 2000	Depth to groundwater (feet toc)	5.74	4 06	6 27	5 77	7.11		
	Groundwater elevation (feet amsl)	**9.53**	**9.63**	**9.61**	**9.48**	**9.35**	**0.001**	South/Southeast
	Change from previous elevation	-0.79	-0.45	-0.86	-0.71	-0.96		
October 26, 2000	Depth to groundwater (feet toc)	5.35	3.85	5.75	5.28	6.56		
	Groundwater elevation (feet amsl)	**9.92**	**9.84**	**10.13**	**9.97**	**9.90**	N/A	N/A
	Change from previous elevation	-0.40	-0.24	-0.34	-0.22	-0.41		
January 23, 2001	Depth to groundwater (feet toc)	5.70	4.00	6.21	5.73	6.70		
	Groundwater elevation (feet amsl)	**9.57**	**9.69**	**9.67**	**9.52**	**9.76**	**0.001**	South/Southeast
	Change from previous elevation	-0.35	-0.15	-0.46	-0.45	-0.14		

Notes and Abbreviations:
ft/ft = feet per foot
amsl = above mean sea level
toc = top of casing
N/A = not available

Table 4
Analytical Results for Groundwater Samples
2585 Nicholson Street
San Leandro, California

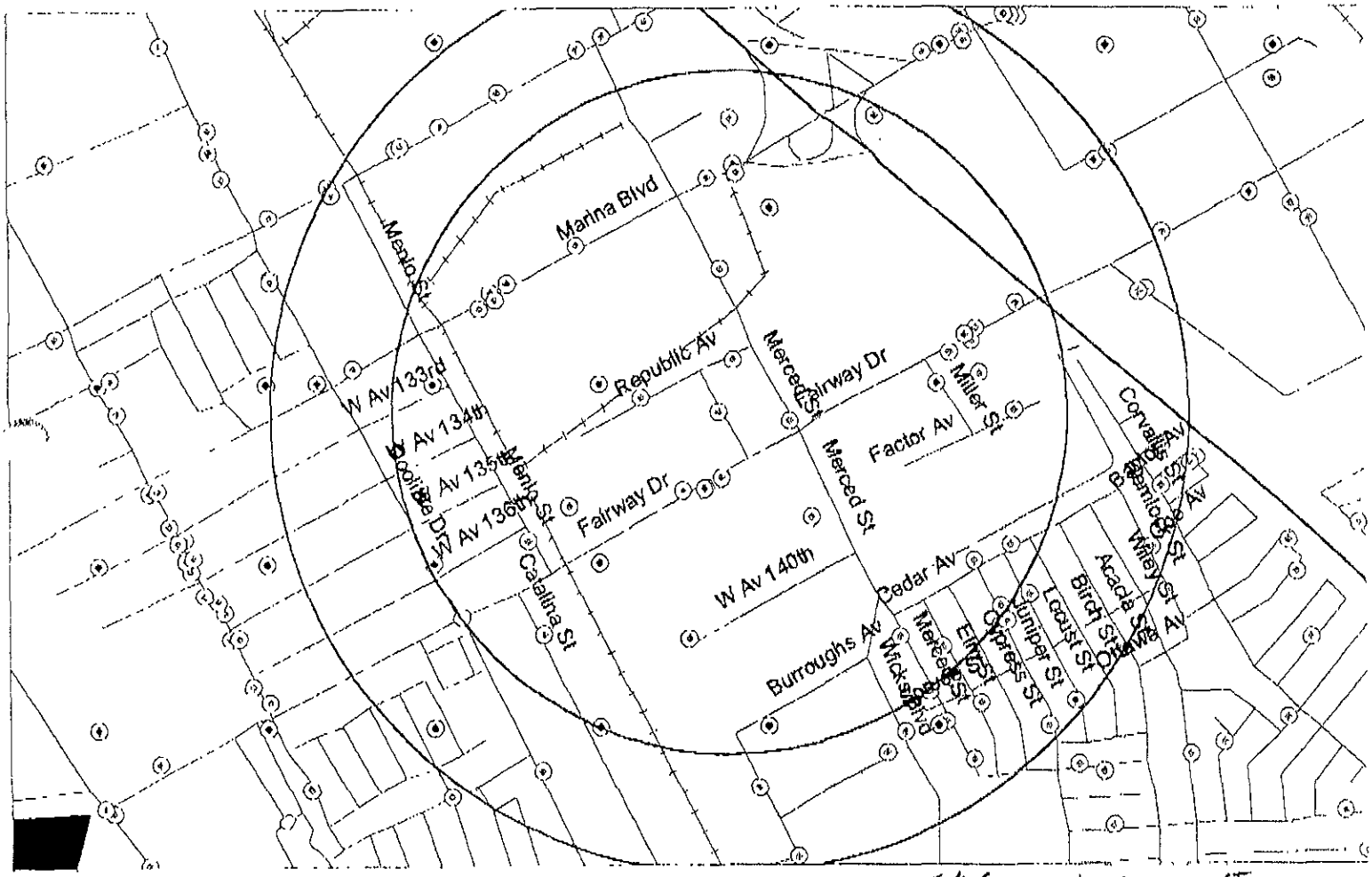
Monitoring Well No	Date	Chemicals of Concern								
		TPH-G (µg/L)	TPH-D (µg/L)	TPH-MO (µg/L)	TPH-K (µg/L)	TPH-SS (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-1	Jun-92	10000	ND	--	--	--	110	81	62	280
	Nov-92	9800	ND	--	--	--	23	14	22	96
	Apr-93	18000	560	ND	ND	370	42	47	50	190
	Jul-93	27000	ND	ND	ND	ND	40	45	63	190
	Dec-93	7800	3800	ND	ND	ND	13	16	20	77
	Mar-94	280000	620	ND	ND	3300	970	880	620	1,700
	Jun-94	8500	ND	ND	ND	ND	23	13	8.5	19
	Sep-94	2400	52	ND	ND	ND	5.3	2.6	2.5	6
	Dec-94	4800	1300	ND	ND	1000	32	32	16	50
	Apr-95	74000	3700	ND	ND	570	320	350	350	940
	Sep-95	33000	46000	ND	ND	4900	140	270	260	1,100
	May-99	8100	ND	ND	--	--	1,400	31	82	360
	Jul-99	3500	1700	--	--	--	252	23	43	179
	Oct-99	4900	--	--	--	--	270	34	<5	370
	Jan-00	22400	<500	--	--	--	1,300	402	483	2,490
	Apr-00	13000	--	--	--	--	1,130	226	335	1,410
	Jul-00	28400	<50	<500	--	--	1,470	190	299	967
	Oct-00	12900	--	--	--	<1,000	1,000	197	353	1,400
	Jan-01	17800	--	--	--	--	957	146	353	1,060
MW-2	Apr-99	ND	ND	ND	--	--	ND	ND	ND	ND
	Jul-99	<100	<100	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	<100	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	118	--	--	--	--	0.7	<0.5	<0.5	<0.5
	Apr-00	<50	--	--	--	--	0.5	<0.5	<0.5	<0.5
	Jul-00	<400	--	--	--	--	0.8	<0.5	<0.5	<0.5
	Oct-00	<50	--	--	--	--	<0.5	<0.5	<0.5	<1.0
	Jan-01	104	--	--	--	--	<0.5	<0.5	<0.5	<0.5
MW-3	Apr-99	ND	540	ND	--	--	ND	ND	ND	ND
	Jul-99	300	<100	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	230	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	163	<50	--	--	--	0.8	<0.5	<0.5	<0.5
	Apr-00	90	--	--	--	--	0.7	<0.5	<0.5	<0.5
	Jul-00	<400	--	--	--	--	2.0	<0.5	<0.5	<0.5
	Oct-00	<50	--	--	--	--	<0.5	<0.5	<0.5	<1.0
	Jan-01	62	--	--	--	--	<0.5	<0.5	<0.5	<0.5
MW-4	Apr-99	110	ND	ND	--	--	ND	ND	ND	ND
	Jul-99	120	<100	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	<100	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	106	--	--	--	--	0.9	<0.5	<0.5	<0.5
	Apr-00	99	--	--	--	--	1.0	<0.5	<0.5	<0.5
	Jul-00	--	--	--	--	--	--	--	--	--
	Oct-00	139	--	--	--	--	0.6	<0.5	<0.5	<1.0
	Jan-01	85	--	--	--	--	<0.5	<0.5	<0.5	<0.5
MW-5	Apr-99	270	ND	ND	--	--	ND	ND	ND	ND
	Jul-99	570	<100	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	540	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	231	--	--	--	--	1.9	<0.5	<0.5	<0.5
	Apr-00	353	--	--	--	--	3.5	<0.5	<0.5	<0.5
	Jul-00	<400	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Oct-00	156	--	--	--	--	1.0	<0.5	<0.5	<1.0
	Jan-01	<50	--	--	--	--	<0.5	<0.5	<0.5	<0.5

Notes and Abbreviations

TPH-G = total petroleum hydrocarbons as gasoline
TPH-D = total petroleum hydrocarbons as diesel
TPH-K = total petroleum hydrocarbons as kerosene
TPH-SS = total petroleum hydrocarbons as stoddard solvent
µg/L = micrograms per litter, equivalent to parts per billion (ppb)
ND = not detected at or above the methods reporting limit.
-- = not analysed

ATTACHMENT 2

CAPWA Well Survey Information

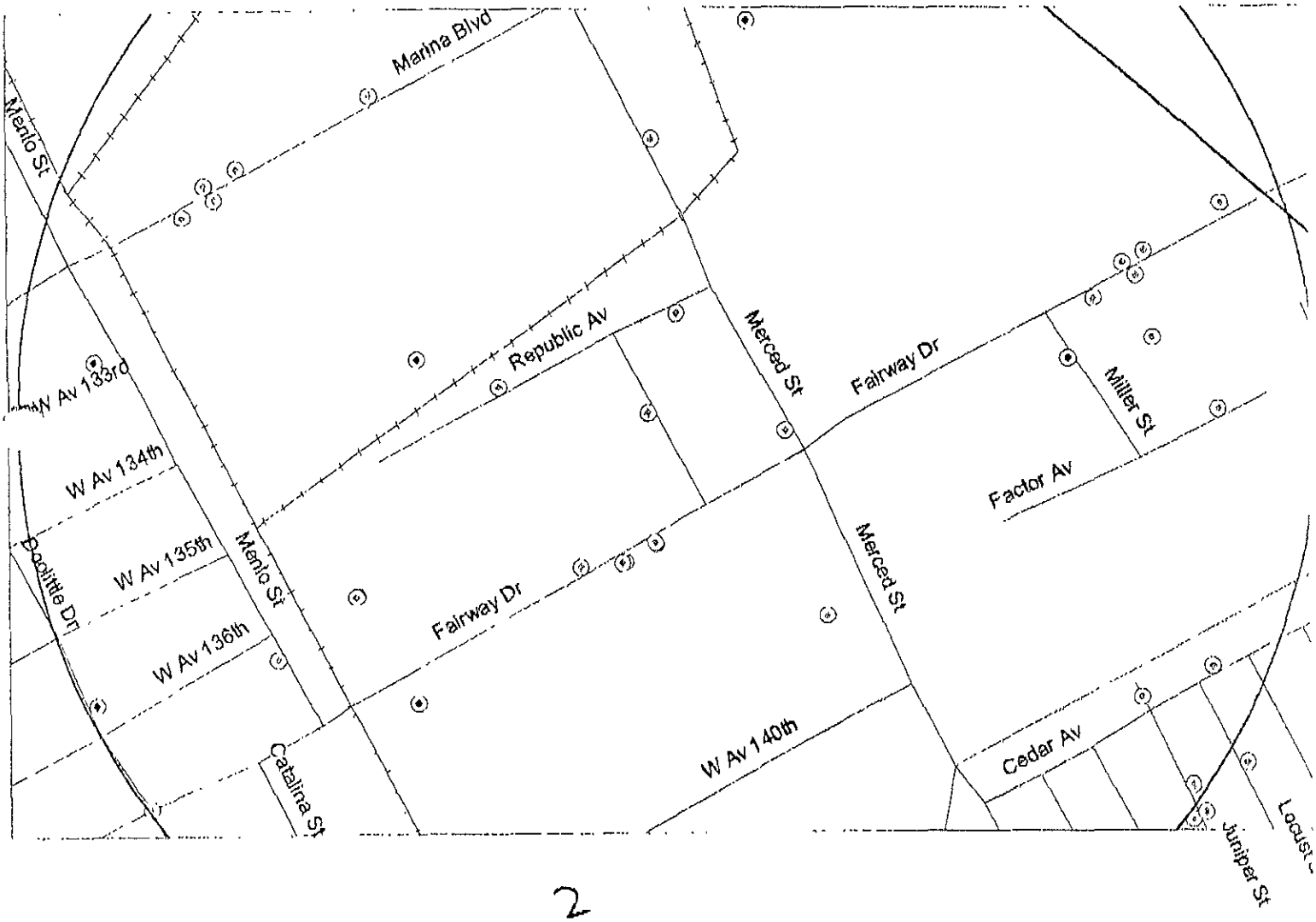


2585 NICHOLSON ST San Leandro

1

.5 mile radius

well survey


Marina Blvd
Menlo St
Republic Av
Merced St
Fairway Dr
Miller St
Factor Av
N Av 133rd
W Av 134th
W Av 135th
W Av 136th
Doolittle Dr
Menlo St
Fairway Dr
Merced St
W Av 140th
Catalina St
Cedar Av
Juniper St

Permit	Tr	Section	Address	Longcity	Owner	Update	Xcoord
	2S/3W	34Q12	2011 Marina Blvd.	San Leandro	Owens/Corning Fibergla	03/14/1991	122,174,802
	2S/3W	34Q13	2011 Marina Blvd.	San Leandro	Owens/Corning Fibergla	03/14/1991	122,174,802
	3S/3W	3B 1	2000 FIRST AV	San Leandro	PIONEER FLINTKOTE	08/07/1984	122,176,046
	3S/3W	3B 2	2000 MARINA AV	San Leandro	PIONEER FLINTKOTE C	09/24/1984	122,176,046
	3S/3W	3B 3	2000 FIRST AVE	San Leandro	FLINTKOTE CO.	08/17/1984	122,176,046
	3S/3W	3G 1	2100 W. 136	San Leandro	ROLAND SHIRLEY	08/15/1984	122,176,046
	3S/3W	3H 1	13613 MENLO ST	San Leandro	EDMOND FORD	08/15/1984	122,173,520
	3S/3W	3H14	Fairway Dr. & S. P. RR	Oakland	Anchor Glass	01/06/1994	122,172,396
	3S/3W	3H 9	13700 Catalina St	San Leandro	Rollins Truck Leasing?	09/21/1992	122,173,116
	3S/3W	3H10	13700 Catalina St	San Leandro	Rollins Truck Leasing?	09/21/1992	122,173,116
	3S/3W	3H	13700 Catalina St	San Leandro	Rollins Truck Leasing	09/21/1992	122,173,116
	3S/3W	3H11	13700 Catalina St.	San Leandro	Rollins Truck Leasing	07/02/1993	122,173,126
	3S/3W	3H12	13700 Catalina St.	San Leandro	Rollins Truck Leasing 1	07/02/1993	122,173,126
	3S/3W	3G 2	FAIRWAY & DOOLITTL	San Leandro	ACFC	02/24/1988	122,176,300
	3S/3W	3H 6	13700 CATALINA ST	San Leandro	ROLLINS TRUCK LEASI	10/06/1986	122,173,116
	3S/3W	3H 7	13700 CATALINA ST	San Leandro	ROLLINS TRUCK LEASI	10/07/1986	122,173,116
	3S/3W	3H 8	13700 CATALINA ST	San Leandro	ROLLINS TRUCK LEASI	10/06/1986	122,173,116
	3S/3W	3J 2	RTE. 18- W 136 AV &	San Leandro	DON BREED RANCH	09/24/1984	122,171,579
	3S/3W	3J 3	RTE. 18- W 136 AV &	San Leandro	A. H. BREED	09/24/1984	122,171,579
	3S/3W	3A 8	1959 Republic Ave.	San Leandro	Canteen Corp. MW-3	07/26/1993	122,170,427
	3S/3W	2E 5	1940 Fairway Dr.	San Leandro	Anchor Glass B-1	07/28/1993	122,168,661
	3S/3W	2E 6	1940 Fairway Dr.	San Leandro	Anchor Glass B-2	07/28/1993	122,168,661
	3S/3W	2E 7	1940 Fairway Dr.	San Leandro	Anchor Glass B-3	07/28/1993	122,168,661
	3S/3W	2E 8	1940 Fairway Dr.	San Leandro	Anchor Glass B-4	07/28/1993	122,168,661
	3S/3W	2E 9	1940 Fairway Dr.	San Leandro	Anchor Glass B-5	07/28/1993	122,168,661
	3S/3W	2E10	1940 Fairway Dr.	San Leandro	Anchor Glass B-6	07/28/1993	122,168,661
	3S/3W	2E11	1940 Fairway Dr.	San Leandro	Anchor Glass MW-1	07/29/1993	122,168,651
	3S/3W	2E12	1940 Fairway Dr.	San Leandro	Anchor Glass MW-2	07/29/1993	122,168,651
	3S/3W	3A 1	1977 FIRST AV	San Leandro	MANADNOCK MILLS	08/15/1984	122,171,554
	3S/3W	2D 5	2699 Merced St.	San Leandro	Valley Automated Fuels	03/13/1991	122,166,376
	3S/3W	2D 6	2699 Merced St.	San Leandro	Valley Automated Fuels	03/13/1991	122,166,376
	3S/3W	2D 7	2699 Merced St.	San Leandro	Valley Automated Fuels	03/13/1991	122,166,376
	3S/3W	2D	2699 Merced St.	San Leandro	Valley Automated Fuels	03/13/1991	122,166,376
	2S/3W	34R11	2424 Merced St	San Leandro	Acrvoe Pacific	08/02/1991	122,168,245
	3S/3W	2D 1	1906 REPUBLIC AVE	San Leandro	PACIFIC ELECTRIC SUP	11/04/1986	122,167,899
	3S/3W	2D 2	2424 MERCED ST.	San Leandro	AERROE PACIFIC CO.	11/08/1989	122,168,245
	3S/3W	2D 3	2424 MERCED ST.	San Leandro	AERROE PACIFIC CO.	11/08/1989	122,168,245
	3S/3W	2D 4	2424 MERCED ST.	San Leandro	AERROE PACIFIC CO.	11/08/1989	122,168,245
	3S/3W	2E 1	1930 FAIRWAY DRIVE	San Leandro	TRIANGLE COATINGS	11/12/1986	122,168,210
	3S/3W	3A 2	1951 FAIRWAY DR	San Leandro	CONTINENTAL CAN C	02/03/1988	122,169,290
	3S/3W	3A 3	1951 FAIRWAY DR.	San Leandro	CONTINENTAL CAN C	02/03/1988	122,169,290
	3S/3W	3A 4	1951 FAIRWAY DR	San Leandro	CONTINENTAL CAN C	02/03/1988	122,169,290
	3S/3W	3A 5	1951 FAIRWAY DR	San Leandro	CONTINENTAL CAN C	03/29/1988	122,169,290
	3S/3W	3H 2	2007 W 136	San Leandro	FRANK FALSARELLA	08/15/1984	122,171,568
	3S/3W	3H 3	2025 W. 136	San Leandro	J. VANN	09/24/1984	122,171,568
	3S/3W	3H 4	2036 W. 136	San Leandro	W. JAMIESON	08/15/1984	122,171,568
	3S/3W	3H 5	1ST AV & MULFORD G	San Leandro	HENRY MATOZA	09/24/1984	122,171,568
	3S/3W	2E 3	2701 Merced St	San Leandro	Mitsui Manuf. Bank M	09/24/1992	122,165,794
	3S/3W	2D 8	2585 Nicholson St.	San Leandro	Rodding - Cleaning Serv	06/22/1993	122,168,309
	3S/3W	2D 9	1930 Fairway Dr.	San Leandro	Triangle Coatings, SLE	06/23/1993	122,168,220
	3S/3W	3H13	Fairway Dr. & S. P. RR	Oakland	Anchor Glass	07/16/1993	122,172,413
	3S/3W	3A 6	1959 Republic Ave	San Leandro	Canteen Corp. MW-1	07/26/1993	122,170,427
	3S/3W	3A 7	1959 Republic Ave.	San Leandro	Canteen Corp. MW-2	07/26/1993	122,170,427
	3S/3W	2E 2	2003 WEST AVE. 140T	San Leandro	LAMBERT PROPERTIES	02/08/1988	122,166,972
	3S/3W	2M 1	1997 PIKE AVE	San Leandro	ED & ELIZABETH KOZE	12/14/1988	122,166,984

Ycoord	Matchlevel	Terqq	Rec_code	Phone	City	Drilldate	Elevation	Totaldepth	Waterdepth	Diameter	Use	Lo
37,705,913	0	2S/3W 34	1,251	0	SLE	11/90	0	25	12	2	MO	G
37,705,913	0	2S/3W 34	1,252	0	SLE	8/90	0	25	17	2	MO	G
37,704,335	9	3S/3W 3B	5,991	64,344	SLE	/52	25	960	0	14	IND	?
37,704,335	9	3S/3W 3B	5,992	0	SLE	8/52	25	840	60	14	ABN	D
37,704,335	9	3S/3W 3B	5,993	0	SLE	10/52	0	1,022	60	0	IND	D
37,700,531	9	3S/3W 3	6,023	0	SLE	?	0	30	0	8	IRR	?
37,701,013	0	3S/3W 3H	6,025	0	SLE	?	0	0	0	0	ABN	?
37,701,716	1	3S/3W 3H	0	0	OAK	12/92	0	10	9	2	MO	D
37,699,024	1	3S/3W 3H	7,873	0	SLE	4/92	10	14	6	2	MO	G
37,699,024	1	3S/3W 3H	7,874	0	SLE	4/92	8	14	4	2	MO	G
37,699,024	1	3S/3W 3H	7,875	0	SLE	4/92	0	12	0	8	BOR	G
37,699,008	1	3S/3W 3H	0	0	SLE	4/92	12	14	6	2	MO	G
37,699,008	1	3S/3W 3H	0	0	SLE	4/92	8	13	5	2	MO	G
37,699,400	0	3S/3W 3	6,024	0	SLE	10/87	0	30	8	2	MO	G
37,699,024	0	3S/3W 3H	6,030	0	SLE	09/86	0	16	6	2	TES	D
37,699,024	0	3S/3W 3H	6,031	0	SLE	09/86	0	16	6	2	TES	D
37,699,024	0	3S/3W 3H	6,032	0	SLE	09/86	0	15	6	2	TES	D
37,697,061	9	3S/3W 3J	6,034	0	SLE	?	8	74	0	8	DES	?
37,697,061	9	3S/3W 3J	6,035	0	SLE	?	13	118	0	14	IRR	D
37,704,014	1	3S/3W 3	0	0	SLE	11/92	0	17	7	2	MO	G
37,702,074	1	3S/3W 2E	0	0	SLE	7/92	0	20	7	2	PIE	G
37,702,074	1	3S/3W 2E	0	0	SLE	7/92	0	20	8	2	PIE	G
37,702,074	1	3S/3W 2E	0	0	SLE	7/92	0	20	5	2	PIE	G
37,702,074	1	3S/3W 2E	0	0	SLE	7/92	0	21	11	2	PIE	G
37,702,074	1	3S/3W 2E	0	0	SLE	8/92	0	21	11	2	PIE	G
37,702,074	1	3S/3W 2E	0	0	SLE	8/92	0	21	0	2	PIE	G
37,702,074	1	3S/3W 2E	0	0	SLE	9/92	0	21	11	2	MO	G
37,702,074	1	3S/3W 2E	0	0	SLE	9/92	0	20	10	2	MO	G
37,704,327	9	3S/3W 3	5,985	0	SLE	/52	0	142	0	8	IND	?
37,703,512	0	3S/3W 2D	1,218	0	SLE	10/90	0	31	0	7	BOR	D
37,703,512	0	3S/3W 2D	1,219	0	SLE	10/90	16	20	10	2	MO	G
37,703,512	0	3S/3W 2D	1,220	0	SLE	10/90	17	20	9	2	MO	G
37,703,512	0	3S/3W 2D	1,221	0	SLE	10/90	16	20	9	2	MO	G
37,706,747	0	2S/3W 34	1,898	0	SLE	4/91	0	10	3	4	MO	G
37,704,816	0	3S/3W 2D	5,936	0	SLE	09/86	0	15	6	2	MO	G
37,706,747	0	3S/3W 2D	5,937	0	SLE	05/89	0	25	9	2	MO	G
37,706,747	0	3S/3W 2D	5,938	0	SLE	05/89	0	25	9	2	MO	G
37,706,747	0	3S/3W 2D	5,939	0	SLE	05/89	0	25	9	2	MO	G
37,702,279	0	3S/3W 2E	5,940	0	SLE	10/86	0	25	8	2	MO	D
37,702,021	0	3S/3W 3	5,986	0	SLE	5/87	0	21	8	2	MO	D
37,702,021	0	3S/3W 3	5,987	0	SLE	5/87	0	19	7	2	MO	D
37,702,021	0	3S/3W 3	5,988	0	SLE	5/87	0	18	8	2	MO	D
37,702,021	0	3S/3W 3	5,989	0	SLE	05/87	0	22	12	2	MO	G
37,700,531	9	3S/3W 3H	6,026	0	SLE	?	0	40	0	6	IRR	?
37,700,531	9	3S/3W 3H	6,027	0	SLE	?	0	25	0	8	IRR	?
37,700,531	9	3S/3W 3H	6,028	0	SLE	?	0	0	0	8	IRR	?
37,700,531	9	3S/3W 3H	6,029	0	SLE	11/49	15	249	0	14	IRR	D
37,701,470	1	3S/3W 2E	8,000	0	SLE	1/92	0	20	7	4	MO	G
37,703,714	1	3S/3W 2D	0	0	SLE	6/92	0	19	7	6	MO	G
37,702,294	1	3S/3W 2D	0	0	SLE	4/92	0	15	7	2	MO	G
37,701,703	1	3S/3W 3H	0	0	OAK	12/92	0	10	9	2	PIE	G
37,704,014	1	3S/3W 3	0	0	SLE	11/92	0	17	7	2	MO	G
37,704,014	1	3S/3W 3	0	0	SLE	11/92	0	15	7	2	MO	G
37,700,533	9	3S/3W 2E	5,941	0	SLE	3/87	0	12	5	2	MO	G
37,697,063	9	3S/3W 2	5,960	0	SLE	07/88	0	21	6	2	MO	D

W	W	Yield	Dtwcalc	Old_dbase
0	0	0	0	D
0	0	0	0	D
0	0	800	0	L
0	0	0	-35	L
	0	1,250	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	D
0	0	0	4	D
0	0	0	4	D
0	0	0	0	D
0	0	0	6	D
0	0	0	3	D
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
4	0	0	0	L
0	+	0	0	L
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
	0	0	0	D
0	0	0	0	L
0	0	0	0	D
0	0	0	6	D
0	0	0	8	D
0	0	0	7	D
		0	0	D
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
		0	0	L
		0	0	L
		0	0	L
0	0	0	0	L
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0	0	0	0	D
	0	0	0	D
0	0	0	0	D
0	0	0	0	D
		0	0	L
1	0	0	0	L

Permit	Tr	Section	Address	Longcity	Owner	Update	Xcoord
	3S/3W	2M 2	1997 PIKE AVE	San Leandro	ED & ELIZABETH KOZE	12/14/1988	122,166,984
	3S/3W	2M 3	1997 PIKE AVE	San Leandro	ED & ELIZABETH KOZE	12/14/1988	122,166,984
	3S/3W	2E 4	2003 West Ave 140	San Leandro	Lambert Properties	04/15/1993	122,169,139
	3S/3W	2L 1	14395 ELM ST	San Leandro	TYSON	08/15/1984	122,162,258
	3S/3W	2F 1	14319 MERCED ST	San Leandro	MIGUEL BENAVEDEZ	09/24/1984	122,163,409
	3S/3W	2F 2	14380 JUNIPER ST	San Leandro	ROBERT JOHNSON	09/24/1984	122,160,699
	3S/3W	2G 1	1577 CEDAR AV	San Leandro	THOMAS LORAN JR.	08/15/1984	122,160,408
	3S/3W	11G 1	JUNIPER ST	San Leandro	?	08/15/1984	122,161,400
	2S/3W	34R13	1944 Marina Blvd.	San Leandro	Ingersoll Rand RW-1	07/29/1993	122,172,190
	2S/3W	34R14	1944 Marina Blvd.	San Leandro	Ingersoll Rand OB-1	07/29/1993	122,172,190
	2S/3W	34R15	1944 Marina Blvd.	San Leandro	Ingersoll Rand OB-2	07/29/1993	122,172,190
	2S/3W	34R16	1944 Marina Blvd.	San Leandro	Ingersoll Rand OB-3	07/29/1993	122,172,190
	3S/3W	3B11	2001 Marina Blvd	San Leandro	Owens Corning Fibergla	09/11/1990	122,174,354
	2S/3W	34Q 2	2000 MARINA BLVD	San Leandro	DOMTAR GYPSUM	07/30/1984	122,174,494
	2S/3W	34Q 3	2000 MARINA BLVD	San Leandro	DOMTAR GYPSUM	07/30/1984	122,174,494
	2S/3W	35H 6	2000 MARINA BLVD	San Leandro	DOMTAR GYPSUM	07/30/1984	122,174,494
	3S/3W	3B	2001 MARINA BLVD	San Leandro	OWENS/CORNING	01/19/1990	122,174,354
	3S/3W	3B 4	2001 MARINA BLVD	San Leandro	OWENS CORNING FIBE	08/07/1984	122,174,354
	3S/3W	3B 5	2001 MARINA BLVD	San Leandro	OWENS CORNING FACI	08/08/1988	122,174,354
	3S/3W	3B 7	2001 MARINA BLVD	San Leandro	OWENS CORNING FACI	08/08/1988	122,174,354
	3S/3W	3B 8	2001 MARINA BLVD	San Leandro	OWENS CORNING FACI	08/08/1988	122,174,354
	3S/3W	3B 9	2001 MARINA BLVD	San Leandro	OWENS CORNING FACI	08/08/1988	122,174,354
	3S/3W	3B10	2001 MARINA BLVD	San Leandro	OWENS CORNING FACI	08/08/1988	122,174,354
	3S/3W	3B11	2001 MARINA BLVD	San Leandro	OWENS CORNING FACI	08/08/1988	122,174,354
	2S/3W	34R12	1988 Marina Blvd.	San Leandro	Domtar Gypsum	06/17/1993	122,174,046
	2S/3W	34R 3	1944 Marina Blvd.	San Leandro	Ingersoll-Rand	06/05/1990	122,172,190
	2S/3W	34R 2	1944 Marina Blvd.	San Leandro	Ingersoll-Rand	06/05/1990	122,172,190
	2S/3W	34R 4	1944 Marina Blvd.	San Leandro	Ingersoll-Rand	06/05/1990	122,172,190
	2S/3W	34R	1944 Marina Blvd.	San Leandro	Ingersoll-Rand	06/05/1990	122,172,190
	2S/3W	34R	1944 Marina Blvd.	San Leandro	Ingersoll Rand	03/15/1991	122,172,190
	2S/3W	34R 9	1944 Marina Blvd.	San Leandro	Ingersoll Rand	03/15/1991	122,172,190
	2S/3W	34R 6	1944 Marina Blvd.	San Leandro	Ingersoll Rand	03/15/1991	122,172,190
	2S/3W	34R 7	1944 Marina Blvd.	San Leandro	Ingersoll Rand	03/15/1991	122,172,190
	2S/3W	34R 8	1944 Marina Blvd.	San Leandro	Ingersoll Rand	03/15/1991	122,172,190
	2S/3W	34R10	1944 Marina Blvd.	San Leandro	Ingersoll Rand	03/15/1991	122,172,190
	3S/3W	3B 6	2001 MARINA BLVD	San Leandro	OWENS CORNING FACI	08/08/1988	122,174,354
	2S/3W	34R 5	1988 Marina Blvd.	San Leandro	Domtar Gypsum	03/08/1991	122,174,046
	3S/3W	3B12	2001 Marina Blvd.	San Leandro	Owens-Corning Fibergla	07/03/1990	122,174,354
	2S/3W	34R	1988 Marina Avenue	San Leandro	Domtar Gypsum	07/09/1990	122,174,046
	2S/3W	34R 5	1988 Marina Avenue	San Leandro	Domtar Gypsum	07/27/1990	122,174,046
	2S/3W	34Q11	2011 Marina Blvd	San Leandro	Grupe Properties	08/01/1990	122,174,802
	2S/3W	34Q10	2011 Marina Blvd	San Leandro	Grupe Properties	08/01/1990	122,174,802
	3S/3W	3B 6	2001 Marina Blvd	San Leandro	Owens Corning Fibergla	09/11/1990	122,174,354
	3S/3W	2E13	1940 Fairway Dr	San Leandro	Anchor Glass	07/24/1997	122,168,693
	2S/3W	35N 5	1701 MARINA BLVD	San Leandro	LUCKY STORES (MW2)	01/18/1994	122,167,798
	2S/3W	35N22	1701 Marina Blvd	San Leandro	Lucky Distributors - AS	08/13/1997	122,167,832
	2S/3W	35N 4	1701 MARINA BLVD	San Leandro	LUCKY STORES (MW1)	01/18/1994	122,167,798
	2S/3W	35N12	1700 Marina Blvd	San Leandro	Sheet Metal Int Apptc	09/27/1991	122,167,883
	2S/3W	35N 1	1585 FIRST AV	San Leandro	SARAH MANDENCO	07/30/1984	122,166,876
	2S/3W	35N 2	1591 FIRST AV	San Leandro	UGO ABRAM	07/30/1984	122,166,876
	2S/3W	35N 3	1701 MARINA BLVD	San Leandro	LUCKY STORES	10/06/1986	122,167,815
	2S/3W	35N 4	1701 MARINA BLVD	San Leandro	LUCKY STORES	10/06/1986	122,167,815
	2S/3W	35N 5	1701 MARINA BLVD	San Leandro	LUCKY STORES	10/06/1986	122,167,815
	2S/3W	35N 6	1701 MARINA BLVD	San Leandro	LUCKY STORES	10/06/1986	122,167,815
	2S/3W	35N 7	1701 MARINA BLVD	San Leandro	LUCKY STORES	10/06/1986	122,167,815

Ycoord	Matchlevel	Tsrqq	Roc_code	Phone	City	Drilldate	Elevation	Totaldepth	Waterdepth	Diameter	Use	Lo
37,697,063	9	3S/3W 2	5,961	0	SLE	07/88	0	18	6	2	MO	D
37,697,063	9	3S/3W 2	5,962	0	SLE	07/88	0	19	5	2	MO	D
37,698,929	1	3S/3W 2E	0	0	SLE	11/92	0	15	6	2	MO	D
37,698,732	0	3S/3W 2L	5,955	0	SLE	?	0	12	0	8	IRR	?
37,698,945	0	3S/3W 2F	5,942	0	SLE	7/77	0	0	9	0	IRR	?
37,699,591	0	3S/3W 2F	5,943	0	SLE	7/77	0	15	7	4	DO	D
37,700,890	0	3S/3W 2	5,945	0	SLE	/54	0	17	0	5	IRR	?
37,700,550	2	3S/3W 11	6,107	0	SLE	?	7	100	0	8	STO	?
37,707,231	1	2S/3W 34	0	0	SLE	9/92	30	50	21	8	REC	G
37,707,231	1	2S/3W 34	0	0	SLE	9/92	30	50	21	2	OBS	G
37,707,231	1	2S/3W 34	0	0	SLE	9/92	30	50	20	2	OBS	G
37,707,231	1	2S/3W 34	0	0	SLE	9/92	30	50	21	2	OBS	G
37,706,102	0	3S/3W 3B	897	0	SLE	08/90	0	20	8	2	DES	D
37,706,259	0	2S/3W 34	3,820	0	SLE	3/75	0	143	20	12	IND	D
37,706,259	0	2S/3W 34	3,821	0	SLE	?	0	166	20	12	IND	D
37,706,259	0	2S/3W 35	3,858	0	SLE	3/75	47	150	0	0	IND	?
37,706,102	0	3S/3W 3B	5,990	0	SLE	05/89	0	20	0	8	BOR	G
37,706,102	0	3S/3W 3B	5,994	64,344	SLE	6/77	0	136	28	8	IND	D
37,706,102	0	3S/3W 3B	5,995	0	SLE	05/88	0	20	0	2	MO	D
37,706,102	0	3S/3W 3B	5,996	0	SLE	05/88	0	20	15	2	MO	D
37,706,102	0	3S/3W 3B	5,997	0	SLE	05/88	0	20	11	2	MO	D
37,706,102	0	3S/3W 3B	5,998	0	SLE	05/88	0	20	15	2	MO	D
37,706,102	0	3S/3W 3B	5,999	0	SLE	05/88	0	20	15	2	MO	D
37,706,102	0	3S/3W 3B	6,785	0	SLE	05/88	0	20	10	2	MO	D
37,706,456	1	2S/3W 34	0	0	SLE	1/93	0	610	39	12	IND	G
37,707,231	0	2S/3W 34	147	0	SLE	11/89	25	21	15	4	MO	G
37,707,231	0	2S/3W 34	148	0	SLE	11/89	25	20	15	4	MO	G
37,707,231	0	2S/3W 34	149	0	SLE	11/89	27	22	17	4	MO	G
37,707,231	0	2S/3W 34	150	0	SLE	11/89	0	0	0	11	BOR	?
37,707,231	0	2S/3W 34	1,300	0	SLE	9/90	0	55	42	2	MO	G
37,707,231	0	2S/3W 34	1,301	0	SLE	10/90	0	0	19	8	BOR	G
37,707,231	0	2S/3W 34	1,302	0	SLE	10/90	31	21	21	4	EXT	G
37,707,231	0	2S/3W 34	1,303	0	SLE	10/90	28	17	17	4	EXT	G
37,707,231	0	2S/3W 34	1,304	0	SLE	10/90	28	17	18	4	EXT	G
37,707,231	0	2S/3W 34	1,305	0	SLE	10/90	29	19	19	4	EXT	G
37,706,102	0	3S/3W 3B	6,784	0	SLE	05/88	0	20	15	2	MO	D
37,706,446	0	2S/3W 34	1,157	0	SLE	1/91	0	10	0	2	DES	?
37,706,102	0	3S/3W 3B	444	0	SLE	10/89	0	20	15	2	MO	D
37,706,448	3	2S/3W 34	521	0	SLE	7/89	0	350	20	12	BOR	D
37,706,448	3	2S/3W 34	645	0	SLE	07/89	0	350	20	12	TES	D
37,705,913	0	2S/3W 34	823	0	SLE	04/90	23	26	18	2	MO	G
37,705,913	0	2S/3W 34	824	0	SLE	04/90	23	25	18	2	MO	G
37,706,102	0	3S/3W 3B	696	0	SLE	04/90	0	18	5	4	MO	D
37,702,059	1	3S/3W 2E	0	0	SLE	4/94	0	20	16	2	MO	G
37,708,779	1	2S/3W 35	0	0	SLE	6/93	0	0	0	0	DES	E
37,708,779	1	2S/3W 35	0	0	SLE	7/94	0	20	6	4	MO	D
37,708,779	1	2S/3W 35	0	0	SLE	6/93	0	0	0	0	DES	E
37,708,965	0	2S/3W 35	1,999	0	SLE	7/91	22	30	14	2	MO	G
37,708,036	9	2S/3W 35	3,885	0	SLE	/00	0	40	10	89	DO	?
37,708,030	9	2S/3W 35	3,886	0	SLE	/15	0	47	0	12	DO	?
37,708,779	0	2S/3W 35	3,887	0	SLE	06/86	0	32	0	4	MO	G
37,708,779	0	2S/3W 35	3,888	0	SLE	06/86	0	34	0	4	MO	G
37,708,779	0	2S/3W 35	3,889	0	SLE	06/86	0	34	0	4	MO	G
37,708,779	0	2S/3W 35	3,890	0	SLE	06/86	0	23	0	4	MO	G
37,708,779	0	2S/3W 35	3,891	0	SLE	06/86	0	27	0	4	MO	G

W	W	Yield	Dtwcalc	Old_dbase
1	0	0	0	L
1	0	0	0	L
0	0	0	0	D
0	0	0	0	L
0	0	0	0	L
0	0	8	0	L
0	0	0	0	L
0	9	0	0	L
0	0	0	9	D
0	0	0	9	D
0	0	0	10	D
0	0	0	9	D
0	0	0	0	D
0	0	475	0	L
0	0	475	0	L
0	+	0	0	L
0	0	0	0	L
0	0	36	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	300	0	D
3	4	0	10	D
4	4	0	10	D
	4	0	10	D
1	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	1	0	10	D
0	0	0	11	D
0	0	0	10	D
0	0	0	10	D
0	0	0	0	L
1	1	0	0	D
3	0	0	0	D
0	0	275	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	1	0	0	L
0	0	0	0	L
	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L

Permit	Tr	Section	Address	Longcity	Owner	Update	Xcoord
	2S/3W	35N 8	1701 MARINA BLVD	San Leandro	LUCKY STORES	10/06/1986	122,167,815
	2S/3W	35N 9	1701 MARINA BLVD	San Leandro	LUCKY STORES	10/06/1986	122,167,815
	2S/3W	35N10	1701 MARINA BLVD	San Leandro	LUCKY STORES	10/06/1986	122,167,815
	2S/3W	35N11	1701 MARINA BLVD	San Leandro	LUCKY STORES	10/06/1986	122,167,815
	2S/3W	35M 3	1688 Abram Ct	San Leandro	Crocker Capitol MW	09/23/1992	122,167,969
	2S/3W	35M 4	1688 Abram Ct	San Leandro	Crocker Capitol MW	09/23/1992	122,167,969
	2S/3W	35M 5	1688 Abram Ct	San Leandro	Crocker Capitol M	09/23/1992	122,167,969
	2S/3W	35L28	Marina Blvd. && I-880	San Leandro	Reynolds & Brown	06/23/1993	122,164,034
	2S/3W	35N 6	1701 MARINA BLVD	San Leandro	LUCKY STORES (MW3)	01/18/1994	122,167,798
	2S/3W	35N 8	1701 MARINA BLVD	San Leandro	LUCKY STORES (MW5)	01/18/1994	122,167,798
	2S/3W	35N 9	1701 MARINA BLVD	San Leandro	LUCKY STORES (MW6)	01/18/1994	122,167,798
	2S/3W	35N16	1790 Marina Blvd.	San Leandro	Exxon Station 7-8932	12/13/1994	122,168,592
	2S/3W	35N17	1790 Marina Blvd.	San Leandro	Exxon Station 7-8932	12/13/1994	122,168,592
	2S/3W	35N18	1790 Marina Blvd.	San Leandro	Exxon Station 7-8932	12/13/1994	122,168,592
	2S/3W	35N19	1790 Marina Blvd.	San Leandro	Exxon Station 7-8932	12/13/1994	122,168,592
	2S/3W	35N20	1790 Marina Blvd.	San Leandro	Exxon Station 7-8932	12/13/1994	122,168,592
	2S/3W	35N21	1790 Marina Blvd.	San Leandro	Exxon Station 7-8932	12/13/1994	122,168,592
	3S/3W	2C 1	2700 MERCED ST	San Leandro	PHYSICS INTERNATION	10/20/1986	122,162,388
	3S/3W	2C 2	2700 MERCED ST	San Leandro	PHYSICS INTERNATION	10/20/1986	122,162,388
	3S/3W	2C 3	2700 MERCED ST	San Leandro	PHYSICS INTERNATION	10/20/1986	122,162,388
	3S/3W	2C 4	2700 MERCED ST	San Leandro	PHYSICS INTERNATION	10/20/1986	122,162,388
	3S/3W	2C 5	1700 FAIRWAY DRIVE	San Leandro	SIMMONS MATRESS	02/24/1988	122,161,453
	3S/3W	2C 6	1700 FAIRWAY DRIVE	San Leandro	SIMMONS MATRESS	02/24/1988	122,161,453
	3S/3W	2C 7	1700 FAIRWAY DRIVE	San Leandro	SIMMONS MATRESS	02/24/1988	122,161,453
	3S/3W	2C 8	1465 FACTOR AVE	San Leandro	SIMMONS PROPERTIES	12/14/1988	122,160,302
	3S/3W	2C 9	1465 FACTOR AVE	San Leandro	SIMMONS PROPERTIES	12/14/1988	122,160,302
	3S/3W	2C10	1465 FACTOR AVE	San Leandro	SIMMONS PROPERTIES	12/14/1988	122,160,302
	3S/3W	2C11	1465 FACTOR AVE	San Leandro	SIMMONS PROPERTIES	12/14/1988	122,160,302
	3S/3W	2C12	1465 FACTOR AVE	San Leandro	SIMMONS PROPERTIES	12/14/1988	122,160,302
	4S/2W	1D 1	1675 FAIRWAY DR	San Leandro	BIDWELL SCHOOL	08/16/1984	122,161,343
	2S/3W	2B 7	1465 FACTOR AVE	San Leandro	SIMMONS PROPERTIES	12/14/1988	122,160,302
	2S/3W	2B 8	1465 FACTOR AVE	San Leandro	SIMMONS PROPERTIES	12/14/1988	122,160,302
	2S/3W	2B 9	1465 FACTOR AVE	San Leandro	SIMMONS PROPERTIES	12/14/1988	122,160,302
	2S/3W	2B10	1465 FACTOR AVE	San Leandro	SIMMONS PROPERTIES	12/14/1988	122,160,302
	3S/3W	2C13	Fairway Drive (Chipman	San Leandro	City of San Leandro M	10/01/1992	122,161,224
	3S/3W	2C	Fairway Drive (Simmon	San Leandro	City of San Leandro B	10/01/1992	122,162,046
	3S/3W	2C14	Fairway Dr. && Aladdin	San Leandro	City of San Leandro F-	07/27/1993	122,160,254
	3S/3W	2C15	Fairway Dr. && Aladdin	San Leandro	City of San Leandro F-	07/27/1993	122,160,254
	3S/3W	2C16	Fairway Dr. && Aladdin	San Leandro	City of San Leandro F-	07/27/1993	122,160,254
	3S/3W	2C17	1717 Fairway Dr	San Leandro	Robert Maez	08/13/1997	122,161,636
	3S/3W	2B 1	1465 FACTOR ST	San Leandro	LINCOLN PROPERTY C	02/25/1985	122,160,302
	3S/3W	2B 2	1465 FACTOR ST	San Leandro	LINCOLN PROPERTY C	02/25/1985	122,160,302
	3S/3W	2B 3	1465 FACTOR ST	San Leandro	LINCOLN PROPERTY C	02/25/1985	122,160,302
	3S/3W	2B 4	1465 FACTOR ST	San Leandro	LINCOLN PROPERTY C	02/25/1985	122,160,302

Ycoord	Matchlevel	Tsrqq	Rec_code	Phone	City	Drilldate	Elevation	Totaldepth	Waterdepth	Diameter	Use	Lo
37,708,779	0	2S/3W 35	3,892	0	SLE	06/86	0	22	0	4	MO	G
37,708,779	0	2S/3W 35	3,893	0	SLE	06/86	0	22	0	4	MO	G
37,708,779	0	2S/3W 35	3,894	0	SLE	06/86	0	22	0	4	MO	G
37,708,779	0	2S/3W 35	3,895	0	SLE	06/86	0	22	0	4	MO	G
37,709,930	1	2S/3W 35	7,982	0	SLE	2/92	102	32	16	2	MO	G
37,709,930	1	2S/3W 35	7,983	0	SLE	2/92	101	32	20	2	MO	G
37,709,930	1	2S/3W 35	7,984	0	SLE	2/92	101	32	14	2	MO	G
37,709,962	1	2S/3W 35	0	0	SLE	7/92	0	20	15	2	BOR	G
37,708,779	1	2S/3W 35	0	0	SLE	6/93	0	0	0	0	DES	E
37,708,779	1	2S/3W 35	0	0	SLE	6/93	0	0	0	0	DES	E
37,708,779	1	2S/3W 35	0	0	SLE	6/93	0	0	0	0	DES	E
37,708,685	1	2S/3W 35	0	0	SLE	8/93	0	21	11	4	MO	G
37,708,685	1	2S/3W 35	0	0	SLE	8/93	0	20	15	4	MO	G
37,708,685	1	2S/3W 35	0	0	SLE	8/93	0	21	11	4	MO	G
37,708,685	1	2S/3W 35	0	0	SLE	8/93	0	20	12	4	MO	G
37,708,685	1	2S/3W 35	0	0	SLE	8/93	0	21	12	4	MO	G
37,708,685	1	2S/3W 35	0	0	SLE	8/93	0	21	11	4	MO	G
37,704,305	9	3S/3W 2C	5,924	0	SLE	09/86	0	20	5	2	MO	D
37,704,305	9	3S/3W 2C	5,925	0	SLE	09/86	0	20	5	2	MO	D
37,704,305	9	3S/3W 2C	5,926	0	SLE	09/86	0	20	5	2	MO	D
37,704,305	9	3S/3W 2C	5,927	0	SLE	09/86	0	20	5	2	MO	D
37,705,215	0	3S/3W 2C	5,928	0	SLE	5/87	0	25	6	8	MO	G
37,705,215	0	3S/3W 2C	5,929	0	SLE	5/87	0	20	5	8	MO	G
37,705,215	0	3S/3W 2C	5,930	0	SLE	5/87	0	15	1	8	MO	G
37,703,734	0	3S/3W 2C	5,931	0	SLE	07/88	0	26	4	2	MO	G
37,703,734	0	3S/3W 2C	5,932	0	SLE	07/88	0	25	5	2	MO	G
37,703,734	0	3S/3W 2C	5,933	0	SLE	07/88	0	18	7	2	MO	G
37,703,734	0	3S/3W 2C	5,934	0	SLE	07/88	0	18	7	2	MO	G
37,703,734	0	3S/3W 2C	5,935	0	SLE	07/88	0	18	7	2	MO	G
37,705,477	0	4S/2W 1D	6,325	0	SLE	?	27	140	0	0	IRR	?
37,703,734	0	2S/3W 2B	6,645	0	SLE		0	0	0	0		
37,703,734	0	2S/3W 2B	6,646	0	SLE		0	0	0	0		
37,703,734	0	2S/3W 2B	6,647	0	SLE		0	0	0	0		
37,703,734	0	2S/3W 2B	6,648	0	SLE		0	0	0	0		
37,704,532	1	3S/3W 2C	8,304	0	SLE	10/91	0	19	8	4	MO	G
37,704,964	1	3S/3W 2C	8,305	0	SLE	10/91	0	12	11	0	BOR	G
37,706,015	1	3S/3W 2C	0	0	SLE	10/92	0	68	9	2	MO	G
37,706,015	1	3S/3W 2C	0	0	SLE	11/92	0	68	9	2	MO	G
37,706,015	1	3S/3W 2C	0	0	SLE	11/92	0	68	10	2	MO	G
37,705,347	1	3S/3W 2C	0	0	SLE	6/93	0	20	9	2	MO	D
37,703,734	2	3S/3W 2B	5,918	0	SLE	11/84	0	27	4	8	MO	G
37,703,734	2	3S/3W 2B	5,919	0	SLE	1/85	0	27	5	6	MO	G
37,703,734	2	3S/3W 2B	5,920	0	SLE	1/85	0	29	8	6	MO	G
37,703,734	2	3S/3W 2B	5,921	0	SLE	1/85	0	24	3	6	MO	G

W	W	Yield	Dtwcalc	Old_dbase
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
	0	0	86	D
0	0	0	81	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
	0	0	0	L
0	0	0	0	L
0	0	0	0	L
		0	0	A
		0	0	A
		0	0	A
		0	0	A
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
0	0	0	0	D
1	0	0	0	L
1	0	0	0	L
1	0	0	0	L
1	0	0	0	L

Permit	Tr	Section	Address	Longcity	Owner	Update	Xcoord
	3S/3W	3K12	2140 W. 136	San Leandro	FLOYD PATERSON	08/15/1984	122,176,046
	3S/3W	3K13	2217 W. 136	San Leandro	W. CLAY	08/15/1984	122,176,046
	3S/3W	3K14	2271 W. 136	San Leandro	D. JENSEN	08/15/1984	122,176,046
	3S/3W	3K15	2301 W. 136	San Leandro	M. THOMPSON	09/24/1984	122,176,046
	3S/3W	3K16	2327 W. 136	San Leandro	DEAN COMPTON	08/15/1984	122,176,046
	3S/3W	3K17	2395 W. 136	San Leandro	GLORIA SUCHOLAS	08/15/1984	122,176,046
	3S/3W	3K18	2401 W. 136	San Leandro	RAY DOLAN	08/15/1984	122,176,046
	3S/3W	3K19	2045 W. 136	San Leandro	J. FISHER	08/15/1984	122,176,046
	3S/3W	3K20	2335 W. 135	San Leandro	C. ROHRBACHER	08/15/1984	122,176,046
	3S/3W	3K 1	2230 W. 136	San Leandro	THOMAS MAZZIE	08/15/1984	122,176,046
	3S/3W	3K 2	2250 W. 136	San Leandro	L. GARDNER	08/15/1984	122,176,046
	3S/3W	3K 3	2270 W. 136	San Leandro	W. ACORN	08/15/1984	122,176,046
	3S/3W	3K 4	2290 W. 136	San Leandro	HOLLIE MAY	09/24/1984	122,176,046
	3S/3W	3K 5	2290 W. 136	San Leandro	HOLLIE MAY	08/15/1984	122,176,046
	3S/3W	3K 6	2310 W. 136 AV	San Leandro	PAT KEENEY	09/24/1984	122,176,046
	3S/3W	3K 7	2320 W. 136	San Leandro	JOSEPH CHANCEY	08/15/1984	122,176,046
	3S/3W	3K 8	2340 W. 136	San Leandro	JOSEPH COX	08/15/1984	122,176,046
	3S/3W	3K 9	2370 W. 136	San Leandro	VERNON HOLMES	08/15/1984	122,176,046
	3S/3W	3K10	2390 W. 136	San Leandro	MARK PUCKETT	08/15/1984	122,176,046
	3S/3W	3K11	2420 W. 136	San Leandro	O.C. PUTMAN	08/15/1984	122,176,046
	3S/3W	2L 4	14512 MACCED ST	San Leandro	WILLIAMS HANRAHAN	08/17/1984	122,162,388
	2S/3W	35M	880 AT WILLIAM ST.	San Leandro	CAL TRANS	11/06/1989	122,166,860
	2S/3W	35L 1	W. 132ND ST	San Leandro	?	07/30/1984	122,162,245

Ycoord	Matchlevel	Tsrqq	Rec_code	Phone	City	Drilldate	Elevation	Totaldepth	Waterdepth	Diameter	Use	Lo
37,697,061	9	3S/3W 3K	6,048	0	SLE	?	0	0	0	6	IRR	?
37,697,061	9	3S/3W 3K	6,049	0	SLE	?	0	22	0	8	IRR	?
37,697,061	9	3S/3W 3K	6,050	0	SLE	?	0	29	0	10	IRR	?
37,697,061	9	3S/3W 3K	6,051	0	SLE	?	0	0	0	0	ABN	?
37,697,061	9	3S/3W 3K	6,052	0	SLE	?	0	20	0	8	IRR	?
37,697,061	9	3S/3W 3K	6,053	0	SLE	?	0	0	0	6	IRR	?
37,697,061	9	3S/3W 3K	6,054	0	SLE	?	0	35	0	0	IRR	?
37,697,061	9	3S/3W 3K	6,055	0	SLE	?	0	40	0	0	IRR	?
37,697,061	9	3S/3W 3K	6,056	0	SLE	?	0	26	0	6	IRR	?
37,697,061	9	3S/3W 3K	6,037	0	SLE	?	0	100	0	0	IRR	?
37,697,061	9	3S/3W 3K	6,038	0	SLE	?	0	98	0	0	IRR	?
37,697,061	9	3S/3W 3K	6,039	0	SLE	/46	12	45	0	0	IRR	?
37,697,061	9	3S/3W 3K	6,040	0	SLE	?	0	24	0	0	IRR	?
37,697,061	9	3S/3W 3K	6,041	0	SLE	?	0	12	0	0	IRR	?
37,697,061	9	3S/3W 3K	6,042	0	SLE	?	0	25	0	6	IRR	?
37,697,061	9	3S/3W 3K	6,043	0	SLE	?	0	69	0	10	DO	?
37,697,061	9	3S/3W 3K	6,044	0	SLE	?	0	17	0	10	IRR	?
37,697,061	9	3S/3W 3K	6,045	0	SLE	?	0	23	0	10	IRR	?
37,697,061	9	3S/3W 3K	6,046	0	SLE	?	0	0	0	10	IRR	?
37,697,061	9	3S/3W 3K	6,047	0	SLE	?	0	30	0	8	IRR	?
37,697,063	9	3S/3W 2L	5,958	0	SLE	4/77	0	20	12	6	IRR	D
37,711,465	9	2S/3W 35	3,882	0	SLE	06/89	41	50	16	0	BOR	G
37,711,465	9	2S/3W 35	6,694	0	SLE	?	32	100	0	0	IRR	?

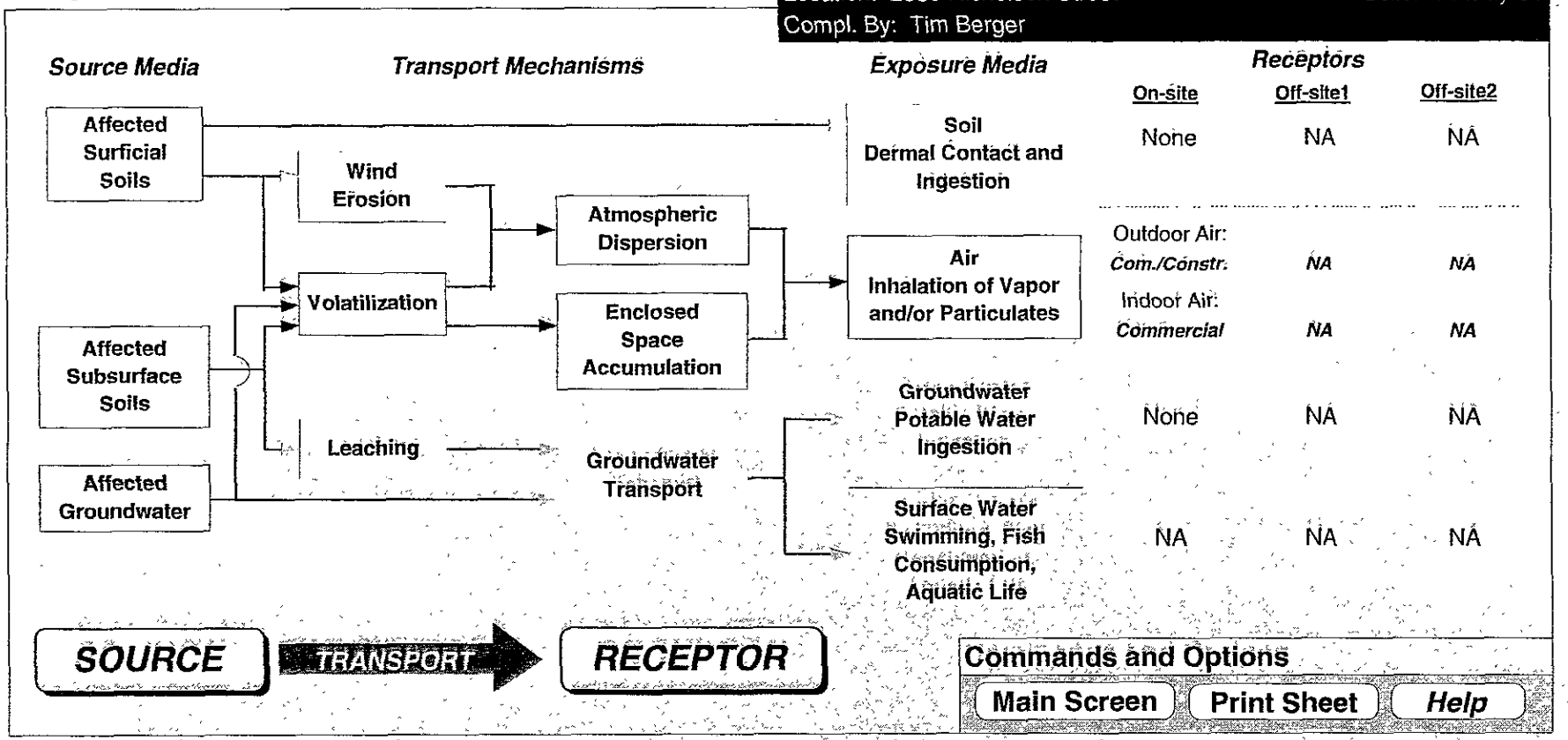
W	W	Yield	Dtweatc	Old_dbase
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L
0	0	0	0	L

ATTACHMENT 3

GSA Toolkit Worksheets

Exposure Pathway Flowchart

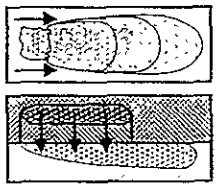
Site Name: Bank of America - San Leandro, California Job ID: 4422-003
Location: 2585 Nicholson Street Date: 14-May-01
Compl. By: Tim Berger



Exposure Pathway Identification

Site Name: Bank of America - San Leandro, California
Location: 2585 Nicholson Street
Compl. By: Tim Berger
Job ID: 4422-003 Date: 14-May-01

1. Groundwater Exposure



Groundwater Ingestion/ Surface Water Impact

Receptor Type:	None		
	On-site	Off-site1	Off-site2

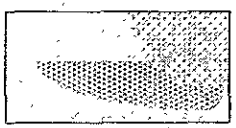
Source Media:

- ☐ Affected Groundwater
- ☐ Affected Soils Leaching to Groundwater

Distance to GW receptors

On-site	Off-site1	Off-site2	
0			(ft)
0			(ft)

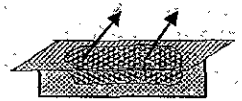
GW Discharge to Surface Water Exposure



- ☐ Swimming
- ☐ Fish Consumption
- ☐ Aquatic Life Protection

Enter ALP Criteria

2. Surface Soil Exposure

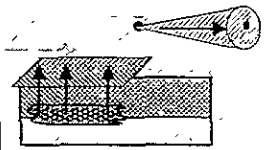


Direct Ingestion and Dermal Contact

Receptor Type:	None	
	On-site	No off-site receptors

Construction Worker ☐

3. Air Exposure



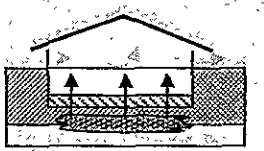
Volatilization and Particulates to Outdoor Air Inhalation

Receptor Type:	Com.		
	On-site	Off-site1	Off-site2
	0		

(ft)

Construction worker ☑

- ☑ Affected Soils--Volatilization to Ambient Outdoor Air
- ☑ Affected Groundwater--Volatilization to Ambient Outdoor Air
- ☐ Affected Surface Soils--Particulates to Ambient Outdoor Air



Volatilization to Indoor Air Inhalation

Receptor Type:	Com.	
	On-site	No off-site receptors

- ☑ Affected Soils--Volatilization to Enclosed Space
- ☑ Affected Groundwater--Volatilization to Enclosed Space

4. Commands and Options

Main Screen | Print Sheet | Set Units | Help

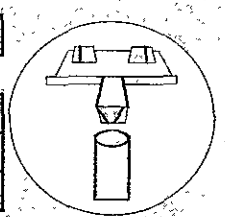
■☐ Exposure Factors & Target Risks | Exposure Flowchart

Exposure Factors and Target Risk Limits

Site Name: Bank of America - San Leandro, California
Location: 2585 Nicholson Street
Compl. By: Tim Berger
Job ID: 4422-003 Date: 14-May-01

1. Exposure Parameters

		Residential			Commercial	
Age Adjustment?		Adult	(Age 0-6)	(Age 0-16)	Chronic	Construc.
Averaging time, carcinogens (yr)		70				
Averaging time, non-carcinogens (yr)		30			25	1
Body weight (kg)		70	15	35	70	
Exposure duration (yr)		30	6	16	25	1
Exposure frequency (days/yr)		350			250	180
Dermal exposure frequency (days/yr)		350			250	
Skin surface area, soil contact (cm^2)	☐	5800		2023	5800	5800
Soil dermal adherence factor ($mg/cm^2/day$)		1				
Water ingestion rate (L/day)		2			1	
Soil ingestion rate (mg/day)	☐	100	200		50	100
Indoor air inhalation rate (m^3/day)		15			20	
Outdoor air inhalation rate (m^3/day)		20			20	10
Swimming exposure time (hr/event)		3				
Swimming event frequency (events/yr)		12	12	12		
Swimming water ingestion rate (L/hr)	☐	0.05	0.5			
Skin surface area, swimming (cm^2)	☐	23000		8100		
Fish consumption rate (kg/day)		0.025				
Contaminated fish fraction (unitless)		1				



2. Risk Goal Calculation Options

- ○ Individual Constituent Risk Goals Only
- ○ Cumulative Constituent Risk Goals Only
- ◉ Individual and Cumulative Risk Goals

3. Target Health Risk Limits

	Individual	Cumulative
Target Risk (Class A/B carcins.)	1.0E-5	1.0E-5
Target Risk (Class C carcinogens)	1.0E-5	
Target Hazard Quotient	1.0E+0	
Target Hazard Index		1.0E+0

4. Commands and Options

Return to Exposure Pathways

Use Default Values

Print Sheet

Help

RBCA SITE ASSESSMENT

Input Parameter Summary

Site Name: Bank of America - San Leandro, California
Site Location 2585 Nicholson Street

Completed By: Tim Berger
Date Completed: 14-May-01

Job ID: 4422-003

Exposure Parameters		Residential			Commercial/Industrial	
		Adult	(1-6 yrs)	(1-16 yrs)	Chronic	Construc-
AT_c	Averaging time for carcinogens (yr)	70				
AT_n	Averaging time for non-carcinogens (yr)	30			25	1
BW	Body weight (kg)	70	15	35	70	
ED	Exposure duration (yr)	30	6	16	25	1
τ	Averaging time for vapor flux (yr)	30			25	1
EF	Exposure frequency (days/yr)	350			250	180
EF_D	Exposure frequency for dermal exposure	350			250	
IR_w	Ingestion rate of water (L/day)	2			1	
IR_s	Ingestion rate of soil (mg/day)	100	200		50	100
IR_{air-in}	Inhalation rate indoor (m^3/day)	15			20	
$IR_{air-out}$	Inhalation rate outdoor (m^3/day)	20			20	10
SA	Skin surface area (dermal) (cm^2)	5800		2023	5800	5800
M	Soil to skin adherence factor	1				
ET_{swim}	Swimming exposure time (hr/event)	3				
EV_{swim}	Swimming event frequency (events/yr)	12	12	12		
IR_{swim}	Water ingestion while swimming (L/hr)	0 05	0 5			
SA_{swim}	Skin surface area for swimming (cm^2)	23000		8100		
IR_{fish}	Ingestion rate of fish (kg/yr)	0 025				
FI_{fish}	Contaminated fish fraction (unitless)	1				

Complete Exposure Pathways and Receptors	On-site	Off-site 1	Off-site 2
Groundwater:			
Groundwater Ingestion	None	NA	NA
Soil Leaching to Groundwater Ingestion	None	NA	NA
Applicable Surface Water Exposure Routes:			
Swimming			NA
Fish Consumption			NA
Aquatic Life Protection			NA
Soil:			
Direct Ingestion and Dermal Contact	None		
Outdoor Air:			
Particulates from Surface Soils	None	NA	NA
Volatilization from Soils	Com./Constr.	NA	NA
Volatilization from Groundwater	Commercial	NA	NA
Indoor Air:			
Volatilization from Subsurface Soils	Commercial	NA	NA
Volatilization from Groundwater	Commercial	NA	NA

Receptor Distance from Source Media	On-site	Off-site 1	Off-site 2	(Units)
Groundwater receptor	NA	NA	NA	(ft)
Soil leaching to groundwater receptor	NA	NA	NA	(ft)
Outdoor air inhalation receptor	0	NA	NA	(ft)

Target Health Risk Values		Individual	Cumulative
TR_{ab}	Target Risk (class A&B carcinogens)	1.0E-5	1.0E-5
TR_c	Target Risk (class C carcinogens)	1.0E-5	
THQ	Target Hazard Quotient (non-carcinogenic risk)	1.0E+0	1.0E+0

Modeling Options	
RBCA tier	Tier 1
RBCA calculation mode	Forward & Backward
Risk goal calculation option	Individual & Cumulative Constituent Risks
Soil volatilization model option	Surface & subsurface models
Use soil attenuation model (SAM) for leachate?	NA
Air dilution factor	NA
Groundwater dilution-attenuation factor	NA

NOTE: NA = Not applicable

Surface Parameters		General	Construction	(Units)
A	Source zone area	4.5E+3	0 0E+0	(ft^2)
W	Length of source-zone area parallel to wind	8.0E+1	0.0E+0	(ft)
W_{gw}	Length of source-zone area parallel to GW flow	NA		(ft)
U_{air}	Ambient air velocity in mixing zone	7.4E+0		(ft/s)
δ_{air}	Air mixing zone height	6 6E+0		(ft)
P_a	Areal particulate emission rate	NA		(g/cm^2/s)
L_{ss}	Thickness of affected surface soils	5.0E+0		(ft)

Surface Soil Column Parameters		Value			(Units)
h_{cap}	Capillary zone thickness	9.5E-1			(ft)
h_v	Vadose zone thickness	4 0E+0			(ft)
ρ_s	Soil bulk density	1.7E+0			(g/cm^3)
f_{oc}	Fraction organic carbon	1 0E-2			(-)
θ_T	Soil total porosity	3 6E-1			(-)
K_{vs}	Vertical hydraulic conductivity	8 6E-3			(cm/d)
k_v	Vapor permeability	1 1E-16			(ft^2)
L_{gw}	Depth to groundwater	5 0E+0			(ft)
L_s	Depth to top of affected soils	2 5E+0			(ft)
L_{sase}	Depth to base of affected soils	6 0E+0			(ft)
L_{subs}	Thickness of affected soils	3 5E+0			(ft)
pH	Soil/groundwater pH	7.2E+0			(-)
		capillary	vadose	foundation	
θ_w	Volumetric water content	0 35	0.34	0.12	(-)
θ_a	Volumetric air content	0.01	0.02	0.26	(-)

Building Parameters		Residential	Commercial	(Units)
L_b	Building volume/area ratio	NA	9.84E+0	(ft)
A_b	Foundation area	NA	7.53E+2	(cm^2)
X_{crk}	Foundation perimeter	NA	1.12E+2	(ft)
ER	Building air exchange rate	NA	2.30E-4	(1/s)
L_{crk}	Foundation thickness	NA	4 92E-1	(ft)
Z_{crk}	Depth to bottom of foundation slab	NA	4.92E-1	(ft)
η	Foundation crack fraction	NA	1 00E-2	(-)
dP	Indoor/outdoor differential pressure	NA	0 00E+0	(g/cm/s^2)
Q_s	Convective air flow through slab	NA	0.00E+0	(ft^3/s)

Groundwater Parameters		Value	(Units)
δ_{gw}	Groundwater mixing zone depth	NA	(ft)
I_f	Net groundwater infiltration rate	NA	(cm/yr)
U_{gw}	Groundwater Darcy velocity	NA	(cm/d)
V_{gw}	Groundwater seepage velocity	NA	(cm/d)
K_s	Saturated hydraulic conductivity	NA	(cm/d)
i	Groundwater gradient	NA	(-)
S_w	Width of groundwater source zone	NA	(ft)
S_d	Depth of groundwater source zone	NA	(ft)
θ_{eff}	Effective porosity in water-bearing unit	NA	(-)
f_{oc-sat}	Fraction organic carbon in water-bearing unit	NA	(-)
pH_{sat}	Groundwater pH	NA	(-)
	Biodegradation considered?	NA	

Transport Parameters		Off-site 1	Off-site 2	Off-site 1	Off-site 2	(Units)
Lateral Groundwater Transport		Groundwater Ingestion		Soil Leaching to GW		
α_x	Longitudinal dispersivity	NA	NA	NA	NA	(ft)
α_y	Transverse dispersivity	NA	NA	NA	NA	(ft)
α_z	Vertical dispersivity	NA	NA	NA	NA	(ft)
Lateral Outdoor Air Transport		Soil to Outdoor Air Inhal.		GW to Outdoor Air Inhal.		
σ_y	Transverse dispersion coefficient	NA	NA	NA	NA	(ft)
σ_z	Vertical dispersion coefficient	NA	NA	NA	NA	(ft)
ADF	Air dispersion factor	NA	NA	NA	NA	(-)

Surface Water Parameters		Off-site 2	(Units)
Q_{sw}	Surface water flowrate	NA	(ft^3/s)
W_{pl}	Width of GW plume at SW discharge	NA	(ft)
δ_{pl}	Thickness of GW plume at SW discharge	NA	(ft)
DF_{sw}	Groundwater-to-surface water dilution factor	NA	(-)

RBCA SITE ASSESSMENT | **Baseline Risk Summary-All Pathways**

Site Name: Bank of America - San Leandro, California
Site Location: 2585 Nicholson Street

Completed By: Tim Berger
Date Completed: 14-May-01

TIER 1 BASELINE RISK SUMMARY TABLE

EXPOSURE PATHWAY	BASELINE CARCINOGENIC RISK: Individual COC Risk – Maximum Value	Individual COC Risk – Target Risk	Cumulative COC Risk – Total Value	Cumulative COC Risk – Target Risk	Risk Limit(s) Exceeded?	BASELINE TOXIC EFFECTS: Hazard Quotient – Maximum Value	Hazard Quotient – Applicable Limit	Hazard Index – Total Value	Hazard Index – Applicable Limit	Toxicity Limit(s) Exceeded?
OUTDOOR AIR EXPOSURE PATHWAYS										
Complete:	1.3E-8	1.0E-5	1.3E-8	1.0E-5	☐	7.4E-4	1.0E+0	7.5E-4	1.0E+0	☐
INDOOR AIR EXPOSURE PATHWAYS										
Complete:	1.5E-6	1.0E-5	1.5E-6	1.0E-5	☐	8.6E-2	1.0E+0	8.7E-2	1.0E+0	☐
SOIL EXPOSURE PATHWAYS										
Complete:	NA	NA	NA	NA	☐	NA	NA	NA	NA	☐
GROUNDWATER EXPOSURE PATHWAYS										
Complete:	NA	NA	NA	NA	☐	NA	NA	NA	NA	☐
SURFACE WATER EXPOSURE PATHWAYS										
Complete:	NA	NA	NA	NA	☐	NA	NA	NA	NA	☐
CRITICAL EXPOSURE PATHWAY (Maximum Values From Complete Pathways)										
	1.5E-6	***1.0E-5***	***1.5E-6***	***1.0E-5***	☐	***8.6E-2***	***1.0E+0***	***8.7E-2***	***1.0E+0***	☐
	Indoor Air		***Indoor Air***			***Indoor Air***		***Indoor Air***		

Commands and Options

Return | Print Sheet | *Help*

Site Name: Bank of America - San Leandro, Calif. Job No: 4422-003
Location: 2585 Nicholson Street Date: 27-Apr-01
Compl. By: Tim Berger

Soil Source Zone Concentration Calculator

UCL Percentile: 95%

Paste Defaults | Mean Option

Constituent	Detection Limit (mg/kg)	No. of Samples	No. of Detects	Estimated Distribution of Data	Max. Conc. (mg/kg)	Mean Conc. (mg/kg)	UCL on Mean (mg/kg)
Benzene	5.0E-3	7	7	Normal	1.5E+0	1.0E+0	1.3E+0
Toluene	5.0E-3	7	7	Normal	1.9E+0	1.4E+0	1.6E+0
Ethylbenzene	5.0E-3	7	7	Normal	1.8E+0	1.5E+0	1.7E+0
Xylene (mixed isomers)	5.0E-3	7	7	Normal	6.3E+0	5.3E+0	6.0E+0

Enter Analytical Data from
Soil Source Zone
(up to 50 Data Points)

Analytical Data

	1	2	3	4	5	6	7	8	9	10	11	12	13
ID	B 2-4'	B 6-4'	B 7-4'	B 8-4'	B 9-4'	B 11-4'	B 19-4'						
Date	15-May-92	15-May-92	15-May-92	15-May-92	15-May-92	15-May-92	15-May-92						
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
B	1.30E+0	7.80E-1	1.50E+0	9.50E-1	1.20E+0	6.00E-1	6.80E-1						
T	1.70E+0	1.00E+0	1.90E+0	1.20E+0	1.60E+0	1.20E+0	1.20E+0						
E	1.80E+0	1.00E+0	1.60E+0	1.30E+0	1.70E+0	1.50E+0	1.60E+0						
X	4.90E+0	3.90E+0	6.20E+0	4.70E+0	6.20E+0	5.10E+0	6.30E+0						

HOW COME WE GOT DIFF DATES ON EACH OF THIS ADDENDUM?!

RBCA SITE ASSESSMENT

TIER 1 EXPOSURE CONCENTRATION AND INTAKE CALCULATION

INDOOR AIR EXPOSURE PATHWAYS ■ (CHECKED IF PATHWAY IS ACTIVE)

SOILS (2.5 - 6 ft): VAPOR INTRUSION INTO ON-SITE BUILDINGS

Constituents of Concern	1) Source Medium Soil Conc. (mg/kg)	2) NAF Value (m^3/kg) Receptor Commercial	3) Exposure Medium Indoor Air: POE Conc. (mg/m^3) (1) / (2) Commercial	4) Exposure Multiplier (EFxED)/(ATx365) (unitless) Commercial	5) Average Inhalation Exposure Concentration (mg/m^3) (3) X (4) Commercial
Benzene	1.3E+0	1.8E+3	7.1E-4	2.4E-1	1.7E-4
Toluene	1.6E+0	3.5E+3	4.7E-4	6.8E-1	3.2E-4
Ethylbenzene	1.7E+0	9.9E+3	1.7E-4	6.8E-1	1.2E-4
Xylene (mixed isomers)	6.0E+0	6.5E+3	9.2E-4	6.8E-1	6.3E-4

NOTE: AT = Averaging time (days) EF = Exposure frequency (days/yr) ED = Exposure duration (yr) NAF = Natural attenuation factor POE = Point of exposure

Site Name: Bank of America - San Leandro, California
Site Location: 2585 Nicholson Street
Completed By: Tim Berger

Date Completed: 14-May-01
Job ID: 4422-003

RBCA SITE ASSESSMENT

TIER 1 EXPOSURE CONCENTRATION AND INTAKE CALCULATION

INDOOR AIR EXPOSURE PATHWAYS ■ **(CHECKED IF PATHWAY IS ACTIVE)**

GROUNDWATER: VAPOR INTRUSION INTO ON-SITE BUILDINGS

Exposure Concentration

Constituents of Concern	1) Source Medium Groundwater Conc. (mg/L)	2) NAF Value (m^3/L) Receptor Commercial	3) Exposure Medium Indoor Air: POE Conc. (mg/m^3) (1) / (2) Commercial	4) Exposure Multiplier (EFxED)/(ATx365) (unitless) Commercial	5) Average Inhalation Exposure Concentration (mg/m^3) (3) X (4) Commercial
Benzene	1.7E-1	4.4E+3	3.9E-5	2.4E-1	9.6E-6
Toluene	6.4E-2	4.5E+3	1.4E-5	6.8E-1	9.7E-6
Ethylbenzene	6.3E-2	5.2E+3	1.2E-5	6.8E-1	8.3E-6
Xylene (mixed isomers)	2.8E-1	4.9E+3	5.6E-5	6.8E-1	3.8E-5

NOTE: AT = Averaging time (days) EF = Exposure frequency (days/yr) ED = Exposure duration (yr) NAF = Natural attenuation factor POE = Point of exposure

Site Name: Bank of America - San Leandro, California
Site Location: 2585 Nicholson Street
Completed By: Tim Berger

Date Completed: 14-May-01
Job ID: 4422-003

RBCA SITE ASSESSMENT

TIER 1 EXPOSURE CONCENTRATION AND INTAKE CALCULATION

INDOOR AIR EXPOSURE PATHWAYS

Constituents of Concern	TOTAL PATHWAY EXPOSURE (mg/m^3) *(Sum average expsosure concentrations from soil and groundwater routes.)* Commercial
Benzene	1.8E-4
Toluene	3.3E-4
Ethylbenzene	1.3E-4
Xylene (mixed isomers)	6.7E-4

Site Name: Bank of America - San Leandro, Calif Date Completed: 14-May-01
Site Location: 2585 Nicholson Street Job ID: 4422-003
Completed By: Tim Berger

RBCA SITE ASSESSMENT

TIER 1 PATHWAY RISK CALCULATION

INDOOR AIR EXPOSURE PATHWAYS ■ (CHECKED IF PATHWAYS ARE ACTIVE)

Constituents of Concern	(1) EPA Carcinogenic Classification	(2) Total Carcinogenic Exposure (mg/m^3) Commercial	(3) Inhalation Unit Risk Factor (µg/m^3)^-1	(4) Individual COC Risk (2) x (3) x 1000 Commercial
		CARCINOGENIC RISK		
Benzene	A	1.8E-4	8.3E-6	1.5E-6
Toluene	D			
Ethylbenzene	D			
Xylene (mixed isomers)	D			

Total Pathway Carcinogenic Risk = **1.5E-6**

Site Name: Bank of America - San Leandro, California
Site Location: 2585 Nicholson Street
Completed By: Tim Berger

Date Completed: 14-May-01
Job ID: 4422-003

RBCA SITE ASSESSMENT

TIER 1 PATHWAY RISK CALCULATION

INDOOR AIR EXPOSURE PATHWAYS ■ (CHECKED IF PATHWAYS ARE ACTIVE)

Constituents of Concern	(5) Total Toxicant Exposure (mg/m^3) Commercial	TOXIC EFFECTS (6) Inhalation Reference Concentration (mg/m^3)	(7) Individual COC Hazard Quotient (5) / (6) Commercial
Benzene	5.1E-4	6.0E-3	8.6E-2
Toluene	3.3E-4	4.0E-1	8.2E-4
Ethylbenzene	1.3E-4	1.0E+0	1.3E-4
Xylene (mixed isomers)	6.7E-4	7.0E+0	9.6E-5
		Total Pathway Hazard Index =	**8.7E-2**

Site Name: Bank of America - San Leandro, California
Site Location: 2585 Nicholson Street
Completed By: Tim Berger

Date Completed: 14-May-01
Job ID: 4422-003

ATTACHMENT 4

HAI Soil Data (Figures and Tables)

TABLE 1.

Soil Sampling Results

EPA Method 418.1 (Infrared Spectroscopy)

Boring	Depth (feet)	Total Recoverable Hydrocarbons (mg/kg)
B-1	4 6	100 5,800
B-2	4 6	250 11,000
B-3	4 6	ND 5,600
B-4	4 6	260 9,500
B-5	4 6	ND 4,200
B-6	4 6	59 1,800
B-7	4 6	280 1,300
DETECTION LIMIT		50

TABLE 1 (continued)

Soil Sampling Results

Boring	Depth (feet)	Total Recoverable Hydrocarbons (mg/kg)
B-8	4 6	170 7,100
B-9	4 6	230 6,600
B-10	4 6	ND 9,900
B-11	4 6	490 3,800
B-12	4 6	ND 1,800
B-13	4 6	ND 16,000
B-14	4 6	ND 7,500
DETECTION LIMIT		50

TABLE 1 (continued)

Soil Sampling Results

Boring	Depth (feet)	Total Recoverable Hydrocarbons (mg/kg)
B-15	4 6	ND 4,200
B-16	4 6	ND 3,400
B-17	4 6	ND 2,900
B-18	4 6	ND 2,800
B-19	4 6	300 2,000
DETECTION LIMIT		50

TABLE 2.

Analysis by Gas Chromatography (EPA method 8015 and 8020)

Boring	Depth (feet)	Total Recoverable Petroleum Hydrocarbons (mg/Kg)	TPH as Gasoline (mg/Kg)	TPH as Kerosene (mg/Kg)	TPH as Diesel (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl-benzene (ug/Kg)	Total Xylenes (ug/Kg)	Motor Oil (mg/Kg)
B-2	4	250	270	ND	8.6	1,300	1,700	1,800	4,900	ND
B-6	4	59	280	ND	ND	780	1,000	1,000	3,900	ND
B-7	4	280	340	ND	280	1,500	1,900	1,600	6,200	ND
B-8	4	170	240	ND	ND	950	1,200	1,300	4,700	ND
B-9	4	230	230	ND	17	1,200	1,600	1,700	6,200	ND
B-11	4	490	360	ND	86	600	1,200	1,500	5,100	ND
B-19	4	300	440	ND	40	680	1,200	1,600	6,300	ND
Detection Limit		50	1.0	1.0	1.0	5.0	5.0	5.0	5.0	10

ND = Not Detected

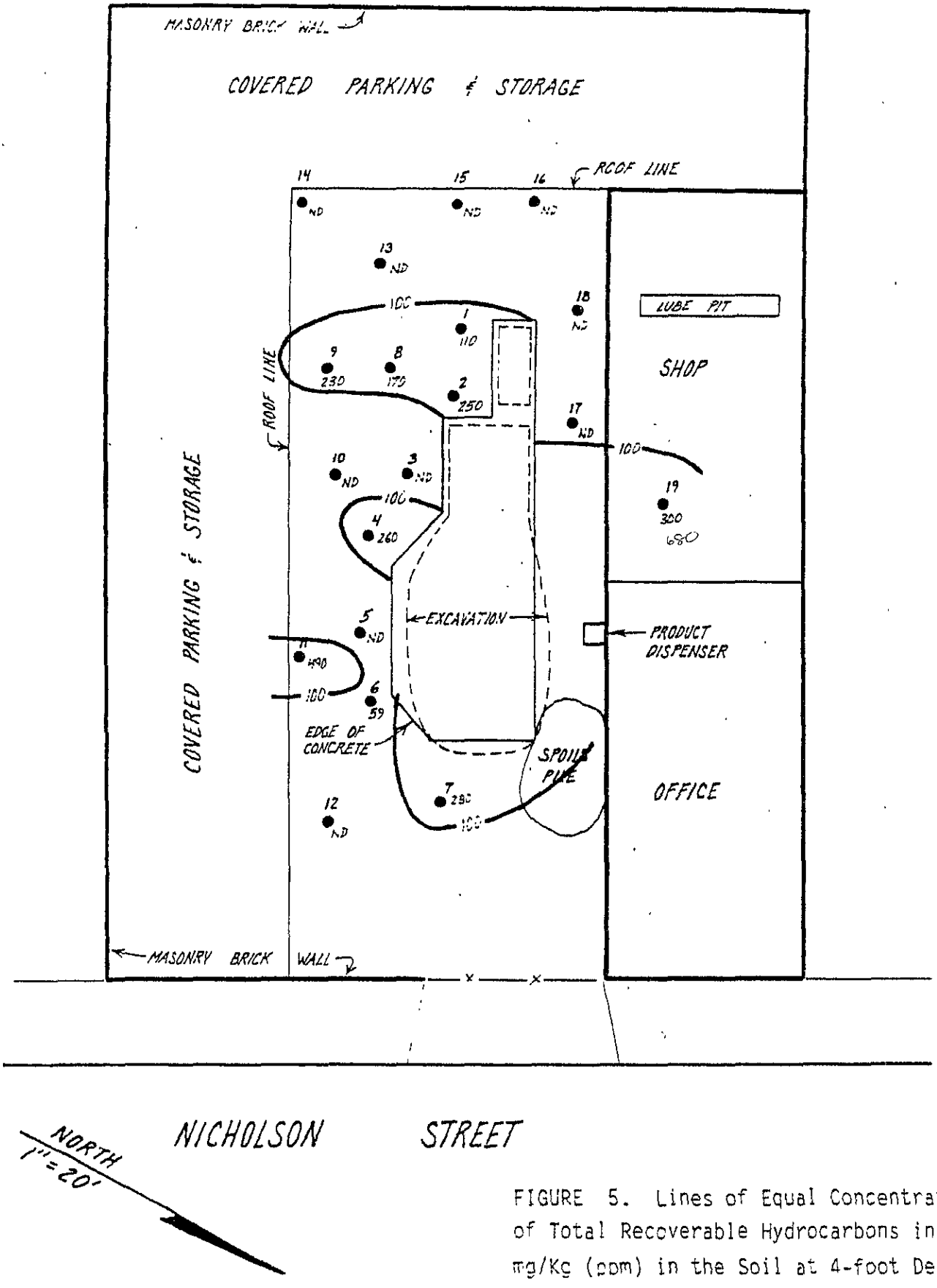


FIGURE 5. Lines of Equal Concentration of Total Recoverable Hydrocarbons in mg/Kg (ppm) in the Soil at 4-foot Depth.

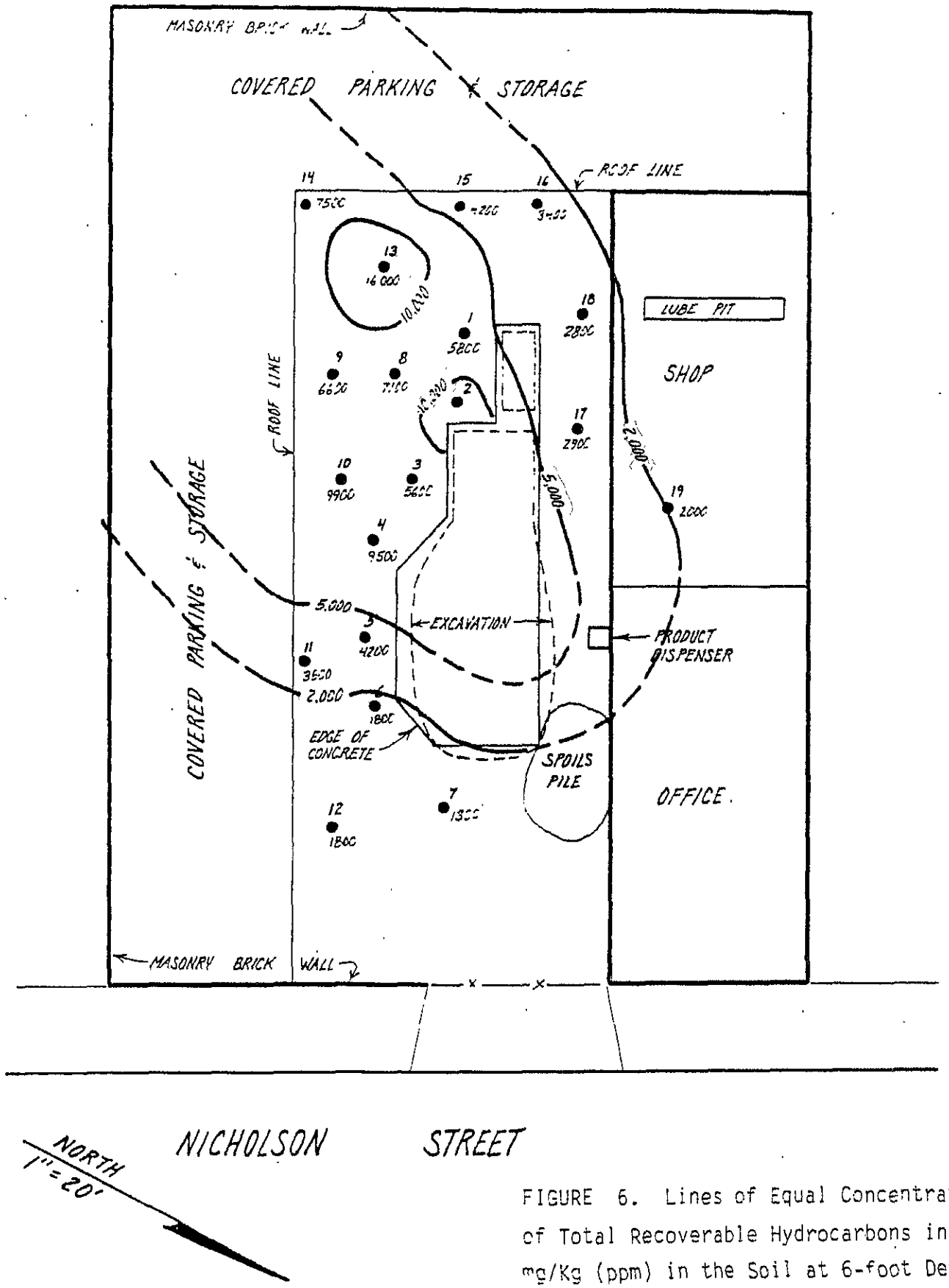


FIGURE 6. Lines of Equal Concentration of Total Recoverable Hydrocarbons in mg/Kg (ppm) in the Soil at 6-foot Depth.

ATTACHMENT 5

References

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