

KAPREALIAN ENGINEERING
INCORPORATED

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ENVIRONMENTAL
PROTECTION

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March 8, 1996

Alameda County Health Care Services
1131 Harbor Way Parkway, #250
Alameda, CA 94501

Attention: Ms. Amy Leech

RE: Site Summary
Berkeley Land Company
23555 Saklan Road
Hayward, California

Dear Ms. Leech:

As we discussed in our recent telephone conversation, Kaprealian Engineering, Inc. (KEI) has prepared a summary of the subsurface investigation and remediation activities that have been conducted at the site to date. As you know, KEI's initial activities at the site were conducted in 1993. However, the attached synopsis is a comprehensive summary of both KEI's activities, and the work conducted by the previous consultant (beginning in 1988). The attached document is a compilation of the information available to KEI and is presented to the best of our knowledge.

Based on the data presented, it is KEI's technical opinion that case closure is warranted for this site. Once closure is granted by your office, KEI will prepare and submit a work plan to properly destroy the existing wells.

If you have any questions, comments, or concerns, please do not hesitate to call me at (510) 602-5100. Your time and consideration in these matters are greatly appreciated.

Sincerely,

Kaprealian Engineering, Inc.



Robert H. Kezerian
Project Manager

Attachment: Site Summary

c: Mr. Norm Alberts, Berkeley Land Co.
Mr. Rick Montesano, Paradiso Mechanical, Inc.



KAPREALIAN ENGINEERING
INCORPORATED

SITE SUMMARY

**Berkeley Land Company
23555 Saklan Road
Hayward, California**

March 7, 1996

Site Description:

The subject site formerly contained an automobile towing impound yard. One underground fuel storage tank (UST) has been removed from the site. The subject site occupies the northeast corner of Saklan Road and Middle Lane in Hayward, California. A Location Map is attached. The vicinity of the site is developed with a mixture of commercial/industrial and residential structures.

Soil borings and monitoring wells drilled at and in the vicinity of the site indicate that the subsurface soils are comprised of fine-grained alluvium, which consists predominantly of silt and clayey or sandy silt to the maximum depth explored, by Kaprealian Engineering, Inc. (KEI), of 13.5 feet below grade (fbg). Monitoring wells previously installed penetrated clayey silt and sand with minor amounts of clay and silty sand (below the depth of 13.5 feet) to the total depth of their exploration of 31.5 fbg, according to Boring Logs prepared by the previous consultant, Certified Environmental Consultants, Inc. (CEC).

Laboratory Results:

The laboratory results of all of the soil and ground water sampled collected at the site are presented in the attached tables.

UST Removal and Sampling:

6/88 One UST was removed from the property (Figure 1). The tank was reportedly of 6,000 gallon capacity. KEI was not present during tank removal or subsequent soil sampling activities.

Laboratory analyses of the soil samples collected from beneath the UST indicated total petroleum hydrocarbons (TPH) of 2,076 ppm and 24,144 ppm.

Soil Excavation and Stockpiled Soil Management:

11/07/88 Approximately 130 cubic yards of soil were previously excavated from the fuel tank pit. The stockpiled soil was sampled by KEI. Based on the non-detectable concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX) and relatively low concentrations of TPH as gasoline and TPH as diesel, it appears likely that the stockpiled soil was backfilled into the excavation.

Soil Borings, Soil Sampling, and Well Installation:

3/90 Hand augered soil borings A and B were drilled at the site, by CEC, to depths of 10 fbg and 15 fbg, respectively (Figure 2). Drill hole A was located in the center of the former tank pit. The cement hold-down slab from the former tank was reportedly encountered at 10 fbg, resulting in refusal. The analytical results of all of the soil samples collected from exploratory borings A and B indicated non-detectable concentrations of TPH as gasoline. Relatively low to non-detectable concentrations of BTEX and maximum TPH as diesel concentration of 500 ppm were also indicated (Table 1).

5/90 Monitoring wells MW1 through MW5 and exploratory borings B1 through B4 were installed at the site by CEC (Figure 3). TPH as gasoline and TPH as diesel were non-detectable in all of the soil samples analyzed, except for 50 ppm and 250 ppm of TPH as diesel in samples B2-S2 and MW3-S3 (Table 2).

6/01/93 & 6/02/93 Hydropunches HP1 through HP7 were drilled by KEI at the site (Figure 3). TPH as diesel was non-detectable in all of the soil samples collected, except for 11 ppm detected in sample HP1(5). TPH as gasoline was detected at a maximum concentration of 6.8 ppm. Benzene was detected at a maximum concentration of 0.076 ppm (Table 3). The analytical results of the water samples collected from the hydropunches are summarized in Table 4.

9/01/95 Hand augered soil borings HA2 and HA3 were drilled at the site, by KEI, to depths ranging from 8 fbg to 10 fbg (Figure 4). HA1 was attempted in four locations, however, refusal

due to large rocks prohibited completion of this boring.

BTEX was non-detectable in all of the samples. A maximum of 360 ppm of TPH as diesel was detected. TPH as gasoline was detected at concentrations ranging from 2.4 ppm to 9.8 ppm (Table 5). However, Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline, and were likely due to Total Extractable Petroleum Hydrocarbons (>C9).

Ground Water Monitoring and Sampling:

2/25/93 to Present A ground water monitoring and sampling program has been conducted at the site by KEI. Sampling has been conducted at the site essentially on a quarterly basis.

Free product was previously detected in only well WW1, at thicknesses of up to 2.2 feet. However, free product has not been detected at the site for the previous 8 quarters (two hydrologic cycles).

The ground water flow direction has consistently been predominantly toward the southeast since the inception of ground water monitoring and sampling (over two hydrologic cycles).

BTEX constituents have been non-detectable in all of the wells at the site for the previous eight quarters (two hydrologic cycles), except for toluene and xylenes, which were detected in WW1 at concentrations of 1.0 ppb and 2.9 ppb, respectively during the April 21, 1995, sampling event.

Wells MW3 and WW1 were also analyzed for EPA method 8270 constituents during the January 17, 1996, sampling event. All of the EPA method 8270 constituents were non-detectable in wells MW3 and WW1. The analytical results of all of the water samples collected from the wells to date are summarized in Table 6.

Copies of the potentiometric surface map and the petroleum hydrocarbon concentrations map, from KEI's report for the recent monitoring and sampling event (January 17, 1996), are attached (Figures 5 and 6, respectively).

The historical maximum and minimum (recorded) ground water table at the site is 9.84 fbg and 15.47 fbg, respectively. This represents the approximate depth of the capillary fringe zone.

Downhole Video Survey of WW1:

This well was reportedly previously used to supply water for flushing the toilets in the former temporary/trailer office. This well was reportedly not used for drinking water supply.

9/02/93 A down-hole video survey of water well WW1 was conducted in order to determine the details of construction. The survey indicated that the water well is six inches in diameter and is perforated (vertical saw cut) beginning at approximately 12 fbg to the total depth of the well, approximately 45 fbg.

Fuel Fingerprint Analysis:

7/08/92 A sample of the free product was collected from WW1 by Berkeley Land Co. and submitted to the Chevron Research and Technology Laboratory in Richmond, California. Based on Chevron's analysis, the sample consisted of diesel fuel #2.

9/02/93 A sample of the free product was again collected from WW1 by KEI and submitted to the Chevron's laboratory. Based on Chevron's analysis, the sample consisted of diesel fuel #2, and appeared relatively unchanged from the properties of the previous sample.

Free Product Skimmer and One-Time Purge of WW1:

12/13/93 A free product recovery skimmer was installed in WW1. Any free product collected in the skimmer was removed during the regular monitoring and sampling events.

11/10/94 Approximately 1,500 gallons of ground water were purged from WW1. The water was purged into a vacuum truck and off-hauled by Erickson Inc. of Richmond, California. A copy of the manifest is included in Appendix A.

INTERPRETATION:

1. The initial soil samples collected from the tank pit in 1988 indicated relatively high concentrations of hydrocarbons. These samples were reportedly collected from beneath the former tank. However, in 1990 when hand augered boring A was drilled in the center of the tank pit, the consultant reported that the cement hold-down slab was encountered at a depth of 10 fbg. Based on the presence of a hold-down slab, and the soil sample point locations, it appears that the initial tank pit samples were collected from backfill material and were therefore not representative of the native soil conditions.
2. As noted in #1 above, the analytical results of the soil samples collected from the tank pit did not appear to accurately represent the conditions of the native soil in the area of the former tank pit. Therefore, on September 1, 1995, KEI collected soil samples from hand augered borings HA2 and HA3. As seen in the attached Figure 4, the borings were positioned immediately adjacent to the edge of the former tank pit location.

The analytical results of the samples collected from the borings indicated a maximum concentrations of TPH as diesel of 360 ppm. TPH as gasoline was detected at concentrations ranging from 2.4 ppm to 9.8 ppm. However, Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline and appeared to be due to "overlap" from the Total Extractable/diesel range (>C9). Benzene was non-detectable in all of the soil samples. These analytical results support KEI's technical opinion that the initial soil samples collected from the tank pit did not appear representative of the actual native soil conditions.

3. To date, five monitoring wells (MW1 through MW5), four exploratory soil borings (B1 through B4), and seven hydro-punches (HP1 through HP7) have been drilled at the site, by both CEC and KEI. A cumulative total of 45 soil samples were collected from the borings and submitted for laboratory analyses. Of these, 42 samples indicated non-detectable concentrations of TPH as diesel. Of the remaining 3 samples, TPH as diesel was detected at concentrations of 11 ppm, 50 ppm, and 250 ppm, in samples HP1(5), B2-S2, and MW3-S3, respectively. The latter two samples were collected from the capillary fringe zone, near the former tank pit.

Of the 43 samples analyzed for TPH as gasoline and benzene, maximum detected concentrations of these constituents were 6.8 ppm and 0.077 ppm, respectively. Therefore, the primary constituent of concern in the soil appears to be TPH as diesel.

4. Free product has been detected in only one well at the site to date, WW1. Initially free product was detected at thicknesses of up to 2.2 feet in WW1. Removal of free product from this well included manual bailing, the installation of a skimmer, and a one-time ground water purging of 1,500 gallons. Subsequently, free product has not been detected in this well since the October 28, 1993 sampling event (two hydrologic cycles). Therefore, KEI's efforts appear to have been successful in eliminating the presence of free product at the site.
5. Based on the consistent southwest flow direction, well MW3 is located downgradient of the former tank pit (and well WW1). As seen in the attached Table 6, dissolved concentrations of TPH as diesel in the ground water decrease significantly from WW1 to MW3. Therefore, the dissolved hydrocarbons do not appear to be significantly migrating.
6. BTEX constituents have been non-detectable in all of the wells at the site for the previous eight quarters (two hydrologic cycles), except for toluene and xylenes, which were detected in WW1 at concentrations of 1.0 $\mu\text{g/L}$ and 2.9 $\mu\text{g/L}$, respectively, during the April 21, 1995, sampling event. However, as shown in the U.S. Environmental Protection Agency Drinking Water Standards and Health Advisories Table, the California Department of Health Services (DOHS) maximum contaminant levels (MCL) for toluene and (total) xylenes are 150 $\mu\text{g/L}$ and 1,750 $\mu\text{g/L}$, respectively. These constituents are significantly below their respective MCL's.
7. As noted by Alameda County Health Care Services (ACHCS) Agency, in order to conduct a risk based closure analysis (RBCA) for a diesel related site, the two primary constituents of concern are naphthalene and benzo(a)pyrene. Therefore, at the request of the ACHCS, ground water samples collected from MW3 and WW1 during the January 17, 1996, sampling event were analyzed for EPA method 8270 constituents. The analytical results of both wells indicated non-detectable concentrations of all of the EPA method 8270 constituents, including naphthalene and benzo(a)pyrene.

CONCLUSION:

- Based on the analytical results of all of the soil samples collected to date, the residual hydrocarbon impacted soil remaining at the site appears to be limited to the capillary fringe zone in the vicinity of the former tank pit. The residual hydrocarbons appear to consist primarily of TPH as diesel.

- Based on the consistent southwest ground water flow direction, and the analytical results of all of the ground water samples collected and analyzed to date, the dissolved hydrocarbons do not appear to be significantly migrating from the site.
- Based on the consistent southwest ground water flow direction, the downgradient vicinity of the site is primarily developed with commercial and light industrial structures. The nearest residential structures are located in an apparent upgradient direction from the site.
- The analytical results of the ground water samples collected from all of the wells to date have shown BTEX constituents either non-detectable or significantly below their respective DOHS MCL's. Additionally, all of the EPA method 8270 constituents, including naphthalene and benzo(a)pyrene, were non-detectable in MW3 and WW1.

Based on the above discussion, and in light of the fact there is no known beneficial use of the shallow-zone aquifer in this area, the site appears to meet the criteria for RBCA.

Berkeley Land Company
23555 Saklan Road
Hayward, California

TABLE 1

. . ANALYTICAL RESULTS FROM SOIL SAMPLING CONDUCTED BY CEC
DURING PHASE I OF THE PRELIMINARY ASSESSMENT

Sample Number	Drill Hole	TPH-G (ppm)	TPH-D (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylene (ppb)
BC-0227-A120	A	ND<10	40	ND<3	15	6	13
BC-0227-B163	B	ND<10	40	ND<3	ND<3	ND<3	ND<3
BC-0227-B186	B	ND<10	550	ND<3	MD<3	4	10

ND = Non-detectable.

Table adapted from CEC report dated October 10, 1990.

Berkeley Land Company
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TABLE 2

SUMMARY OF THE ANALYTICAL RESULTS FROM THE SOIL SAMPLING
 CONDUCTED BY CEC DURING PHASE II

Drill Hole	Sample Number	Depth (feet)	TPH-G (ppm)	TPH-D (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylene (ppb)
B-1	S-1	4	N/A	N/A	N/A	N/A	N/A	N/A
B-1	S-2	6.5	N/A	N/A	N/A	N/A	N/A	N/A
B-1	S-3	10	N/A	N/A	N/A	N/A	N/A	N/A
B-1	S-4	15	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
B-2	S-1	10	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
B-2	S-2	15	ND<1	50	ND<3	ND<3	11	22
B-3	S-1	4.5	--	--	--	--	--	--
B-3	S-2	8.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
B-3	S-3	14.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
B-4	S-1	5	--	--	--	--	--	--
B-4	S-2	10	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
B-4	S-3	15	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-1	S-1	4	--	--	--	--	--	--
MW-1	S-2	10	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-1	S-3	11.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-1	S-4	16.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-1	S-5	21.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-2	S-1	4	--	--	--	--	--	--
MW-2	S-2	6.5	--	--	--	--	--	--
MW-2	S-3(5-8)	11.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-2	S-4(5-9)	16.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-2	S-5(5-10)	21.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-3	S-1	6.5	--	--	--	--	--	--

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TABLE 2 (Continued)

SUMMARY OF THE ANALYTICAL RESULTS FROM THE SOIL SAMPLING
 CONDUCTED BY CEC DURING PHASE II

Drill Hole	Sample Number	Depth (feet)	TPH-G (ppm)	TPH-D (ppm)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylene (ppb)
MW-3	S-2	10	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-3	S-3	15	ND<1	250	4	6	12	58
MW-3	S-4	20	--	--	--	--	--	--
MW-4	S-1	4	--	--	--	--	--	--
MW-4	S-2	6.5	--	--	--	--	--	--
MW-4	S-3	11.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-4	S-4	16.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-4	S-5	21.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-5	S-1	3	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-5	S-2	6.5	--	ND<10	--	--	--	--
MW-5	S-3	10	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-5	S-4	15.5	ND<1	ND<10	ND<3	ND<3	ND<3	ND<3
MW-5	S-5	20	--	ND<10	--	--	--	--

ND = Non-detectable.

Table adapted from CEC report dated October 10, 1990.

Berkeley Land Company
 23555 Saklan Road
 Hayward, California

TABLE 3
 SUMMARY OF LABORATORY ANALYSES
 SOIL

Date	Sample Number	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
6/01/93 & 6/02/93	HP1(5)	11	1.5	0.067	0.0072	ND	ND
	HP1(10)	ND	1.4	0.070	0.0064	ND	ND
	HP1(11.5)	ND	1.5	0.076	0.010	ND	ND
	HP2(5)	ND	1.6	0.077	0.014	ND	ND
	HP2(10)	ND	1.4	0.068	0.010	ND	ND
	HP2(12)	ND	1.4	0.065	0.0076	ND	ND
	HP3(5)	ND	1.4	0.070	0.0077	ND	ND
	HP3(10)	ND	1.5	0.066	ND	ND	ND
	HP3(12)	ND	1.8	0.065	0.0074	ND	ND
	HP4(5)	ND	3.1	0.075	0.011	ND	ND
	HP4(10)	ND	1.9	0.074	0.0095	ND	ND
	HP4(12)	ND	1.4	0.075	0.0096	ND	ND
	HP5(55)	ND	ND	0.071	ND	ND	ND
	HP5(10)	ND	1.7	0.076	0.0067	ND	ND
	HP5(12)	ND	3.1	0.065	0.0063	ND	0.0056
	HP6(5)	ND	6.8	0.058	0.052	0.034	0.13
	HP6(10)	ND	1.6	0.063	0.0061	ND	ND
	HP6(13.5)	ND	1.4	0.064	ND	ND	ND
	HP7(5)	ND	1.5	0.069	0.0052	ND	ND
	HP7(10)	ND	1.8	0.065	0.012	ND	ND
HP7(12.5)	ND	1.5	0.065	ND	ND	ND	

NOTE: The soil samples were collected at the depths below grade indicated in the () of the respective sample number.

ND = Non-detectable.

Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.

Berkeley Land Company
23555 Saklan Road
Hayward, California

TABLE 4

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
6/01/93 & 6/02/93	HP1	1,500	160*	ND	ND	ND	ND
	HP2	ND	ND	ND	ND	ND	ND
	HP3	80	ND	ND	ND	ND	ND
	HP4	59,000	390*	ND	ND	ND	ND
	HP5	120	ND	ND	ND	ND	ND
	HP6	ND	ND	ND	ND	ND	ND
	HP7	ND	ND	ND	ND	ND	ND

ND = Non-detectable.

* Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.

Results are in micrograms per liter ($\mu\text{g/L}$), unless otherwise indicated.

Berkeley Land Company
23555 Saklan Road
Hayward, California

TABLE 5
SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
9/01/95	HA2(8)	8	340	9.8*	ND	ND	ND	ND
	HA3(8)	8	ND	2.4*	ND	ND	ND	ND
	HA3(10)	10	360	9.2*	ND	ND	ND	ND

* Sequoia Analytical Laboratory reported that hydrocarbons detected did not appear to be gasoline.

ND = Non-detectable.

Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.

Berkeley Land Company
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 Hayward, California

TABLE 6

SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Date</u>	<u>Sample Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
1/17/96	MW1	52♦♦	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3▼	120	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1▼	8,400	ND	ND	ND	ND	ND
10/19/95	MW1	ND	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	77	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	560	ND	ND	ND	ND	ND
7/26/95	MW1	ND	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	11,000	3,500*	ND	ND	ND	ND
4/21/95	MW1	ND	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	75	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	3,100	86	ND	1.0	ND	2.9
1/18/95	MW1	ND	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	82	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	30,000	410*	ND	ND	ND	ND
10/18/94	MW1	ND	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	120	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	2,400	180*	ND	ND	ND	ND

Berkeley Land Company
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TABLE 6 (Continued)

SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Date</u>	<u>Sample Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
7/13/94++ &	MW1	66♦♦	ND	ND	ND	ND	ND
	MW2	67♦♦	ND	ND	ND	ND	ND
8/15/94	MW3	92♦♦	ND	ND	ND	ND	ND
	MW4	64♦♦	ND	ND	ND	ND	ND
	MW5	62♦♦	ND	ND	ND	ND	ND
	WW1	9,200	1,600*	ND	ND	ND	ND
1/20/94	MW1	73	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	130	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	340♦	ND	ND	ND	ND	ND
	WW1	190,000	34,000*	ND	ND	ND	ND
10/28/93	MW1	120♦	200*	1.8	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	170	ND	ND	ND	ND	1.4
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
7/12/93+ &	MW1	200♦	150	1.1	ND	ND	0.51
	MW2	ND	ND	ND	ND	ND	ND
8/20/93	MW3	ND	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
2/25/93	MW1	5,900♦	4,600**	45	18	ND	750
	MW2	ND	ND	ND	ND	ND	ND
	MW3	200	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					

♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

♦♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.

Berkeley Land Company
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Hayward, California

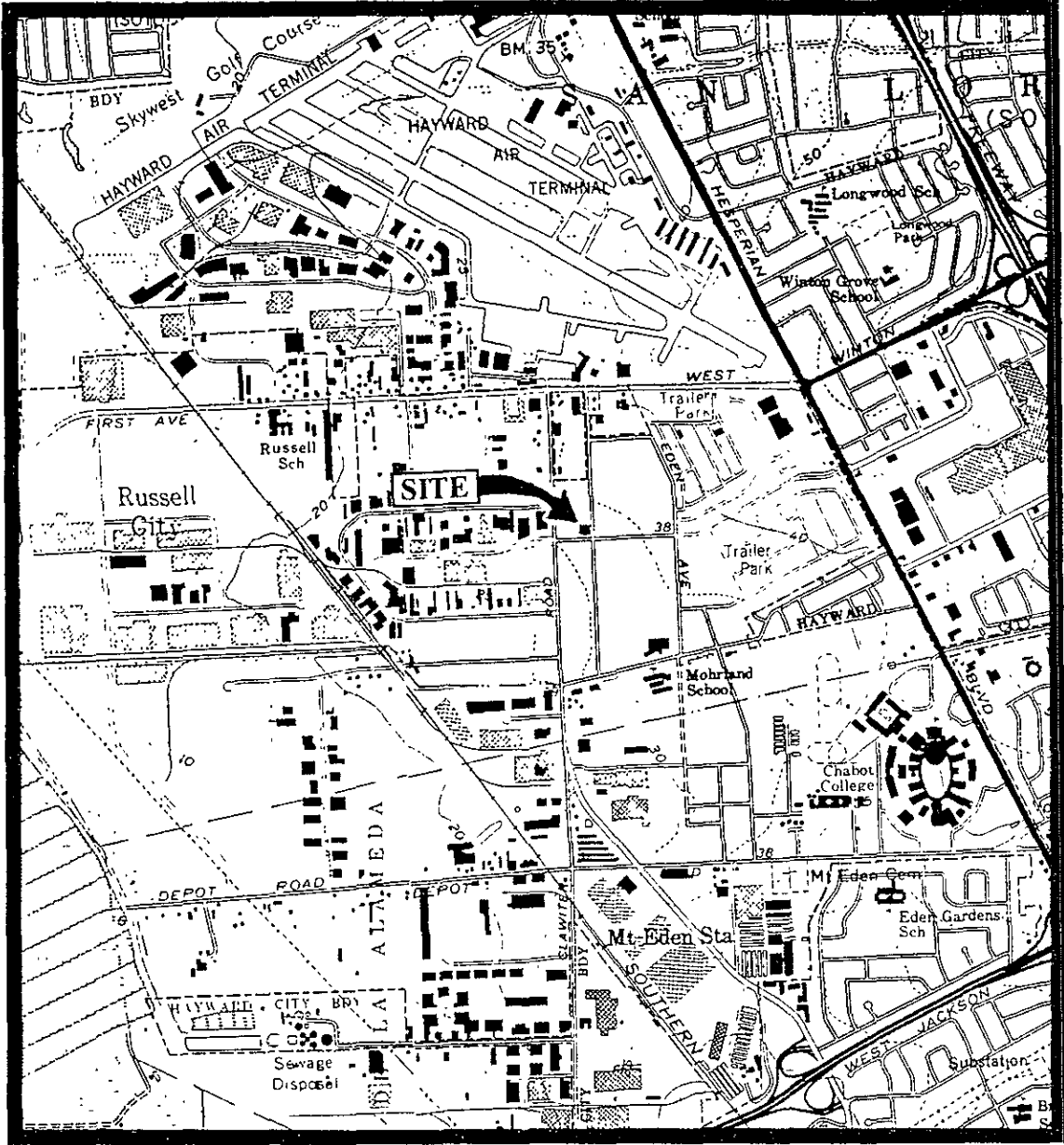
TABLE 6 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

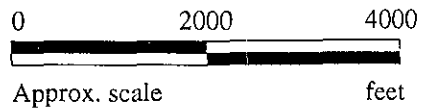
- ▼ All EPA method 8270 (GC/MS) constituents were non-detectable.
- * Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.
- ** Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- + Samples collected on July 12, 1993, were analyzed for TPH as gasoline and BTEX. Samples collected on August 20, 1993, were analyzed for TPH as diesel.
- ++ Samples collected on July 13, 1994, were analyzed for TPH as gasoline and BTEX, and for TPH as diesel for well WW1. Samples collected on August 15, 1994, were analyzed for TPH as diesel for wells MW1 through MW5.

ND = Non-detectable.

Results are in micrograms per liter ($\mu\text{g/L}$), unless otherwise indicated.



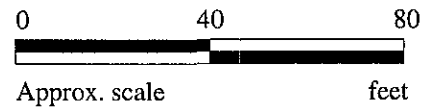
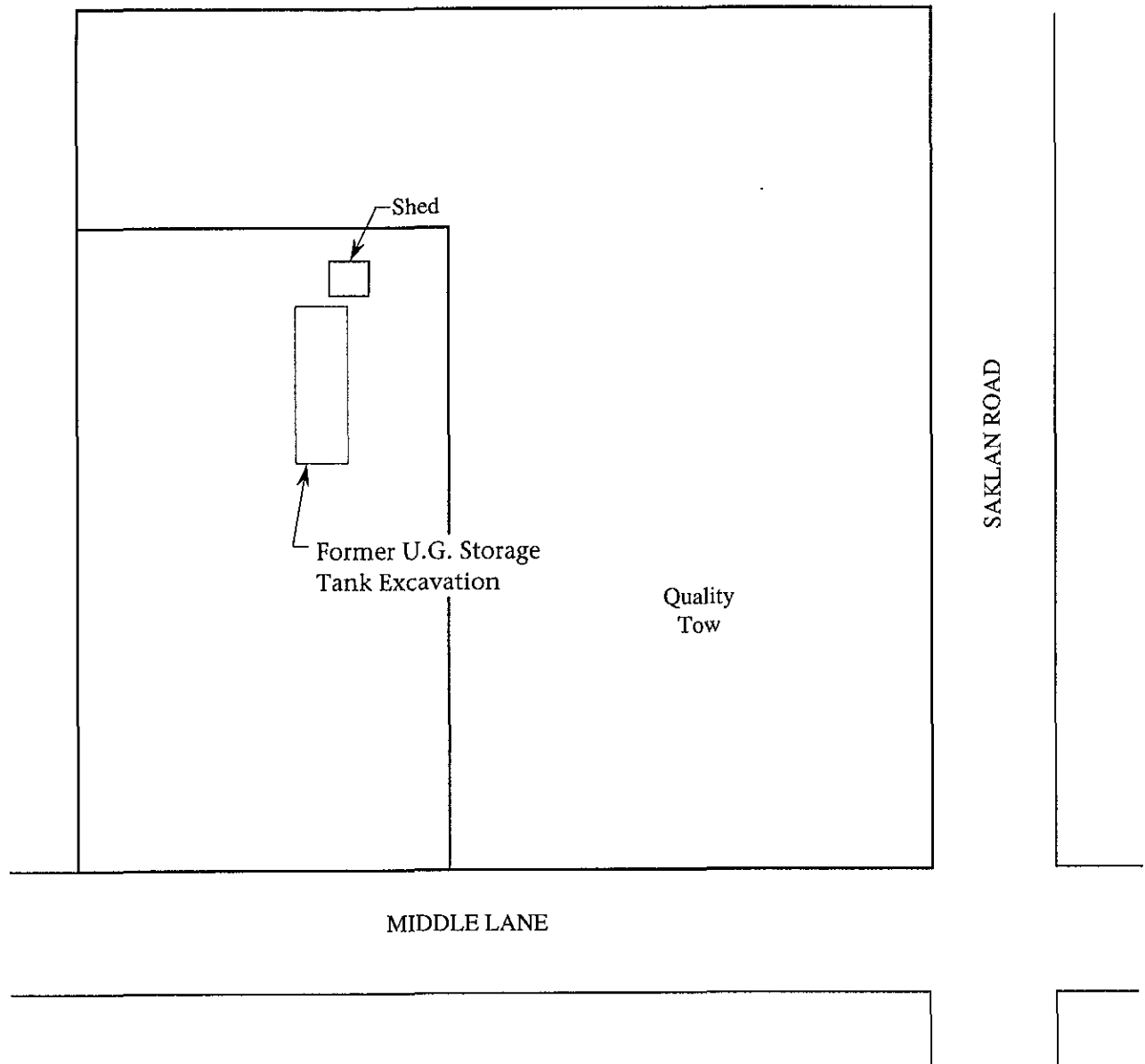
Base modified from 7.5 minute U.S.G.S.
 Hayward & San Leandro Quadrangles
 (both photorevised 1980)



KEI
 KAPREALIAN ENGINEERING
 INCORPORATED

BERKELEY LAND CO.
 23555 SAKLAN ROAD
 HAYWARD, CALIFORNIA

LOCATION
 MAP

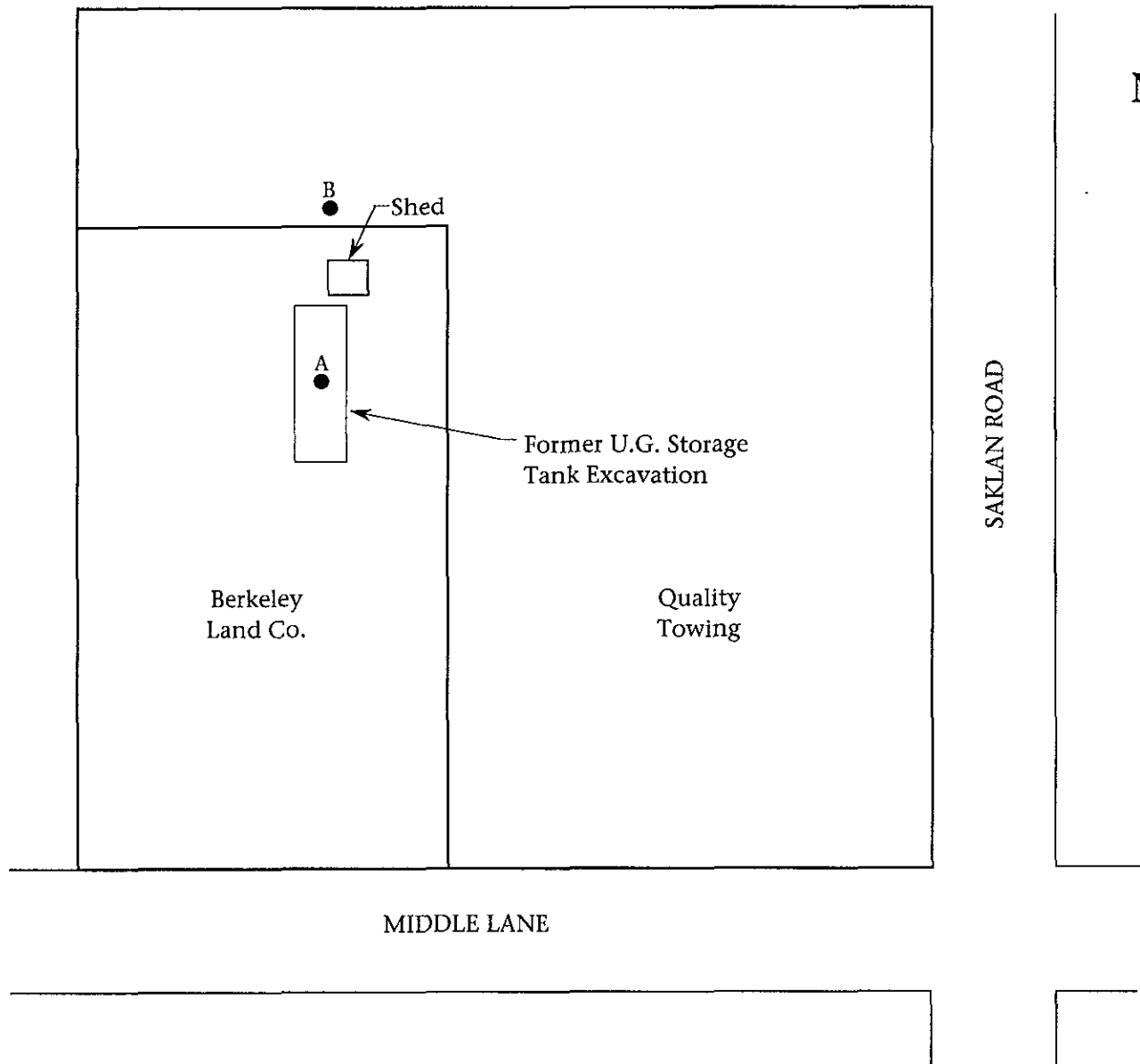


SITE PLAN

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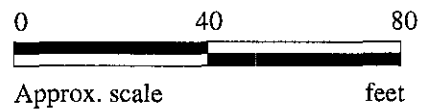
**BERKELEY LAND CO.
23555 SAKLAN ROAD
HAYWARD, CALIFORNIA**

**FIGURE
1**



LEGEND

- Exploratory boring

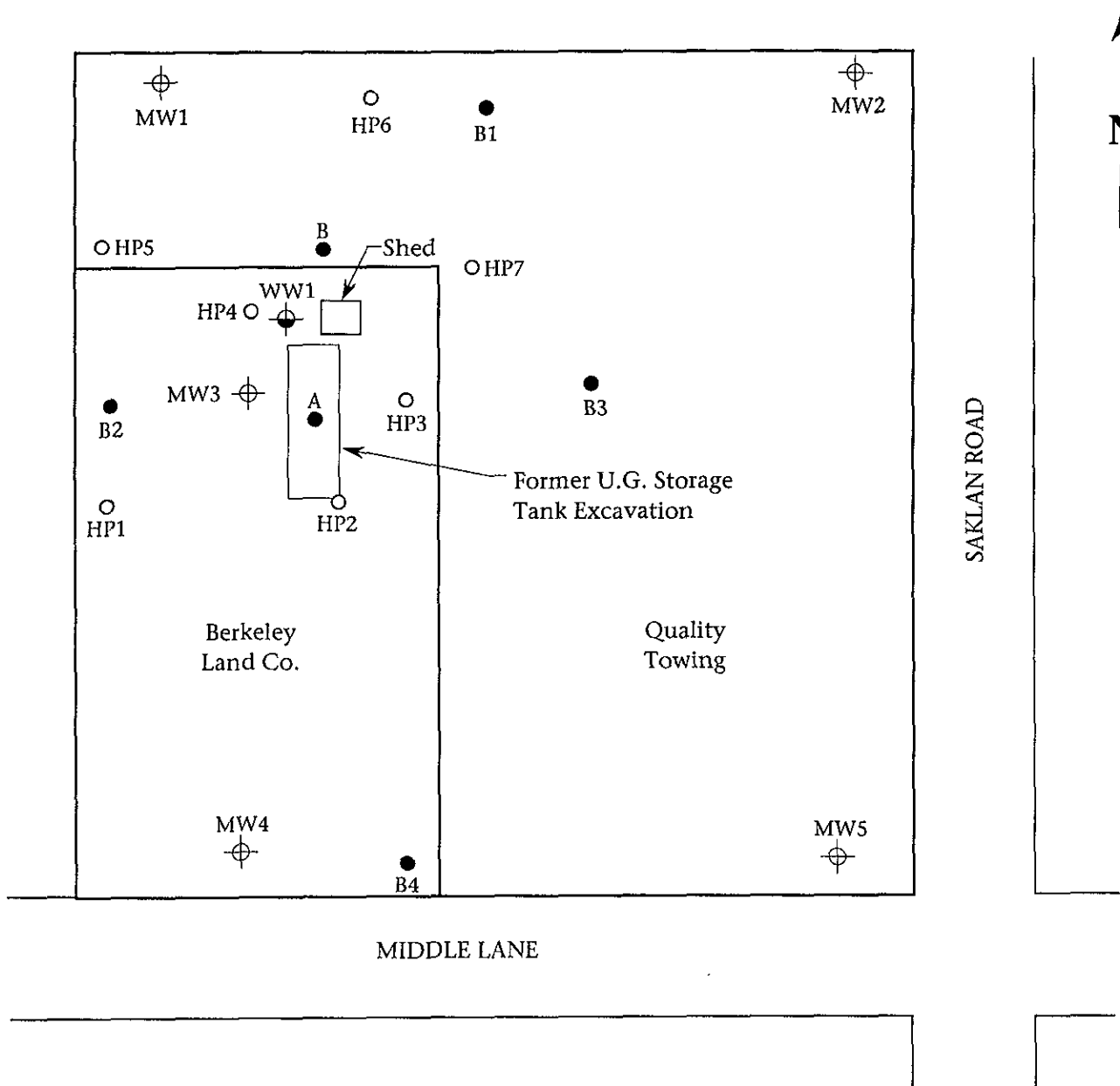


EXPLORATORY BORING LOCATION MAP

**KAPREALIAN ENGINEERING
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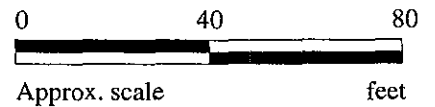
**BERKELEY LAND CO.
23555 SAKLAN ROAD
HAYWARD, CALIFORNIA**

**FIGURE
2**



LEGEND

- ⊕ Monitoring well
- Exploratory boring
- Exploratory boring in conjunction with a Hydropunch study
- ⊕ Water well

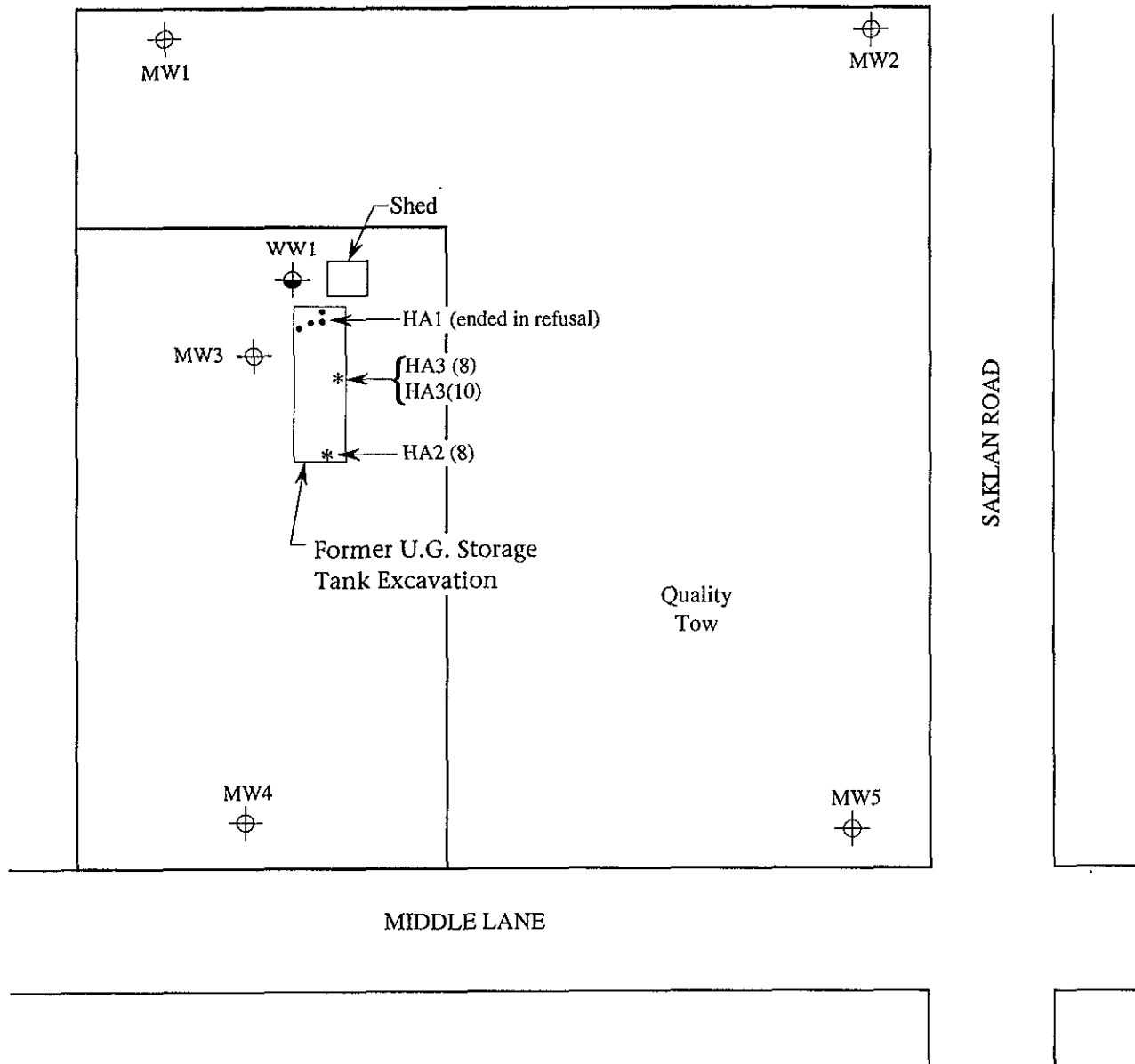


MONITORING WELL AND EXPLORATORY BORING LOCATION MAP

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INCORPORATED**

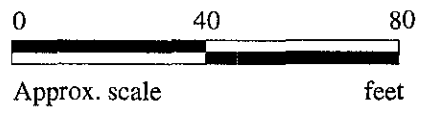
**BERKELEY LAND CO.
23555 SAKLAN ROAD
HAYWARD, CALIFORNIA**

**FIGURE
3**



LEGEND

- ⊕ Monitoring well
- ⊙ Water well
- * Soil sample point location

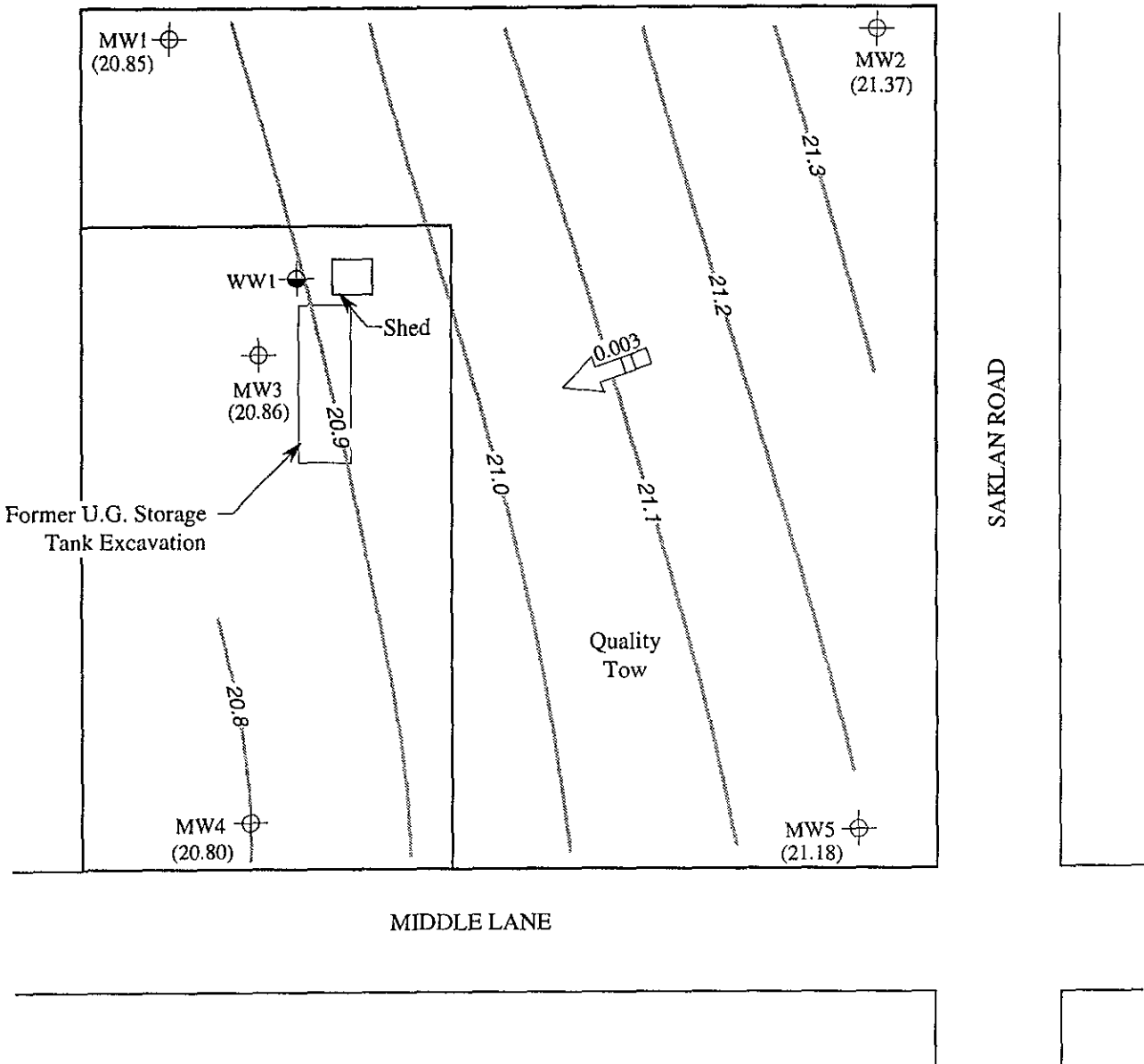


SAMPLE POINT LOCATION MAP







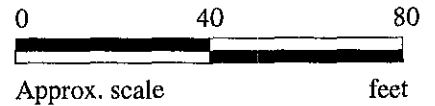
**BERKELEY LAND CO.
23555 SAKLAN ROAD
HAYWARD, CALIFORNIA**

**FIGURE
4**



LEGEND

-  Monitoring well
-  Water well
- () Ground water elevation in feet above Mean Sea Level
-  Direction of ground water flow with approximate hydraulic gradient
-  Contours of ground water elevation

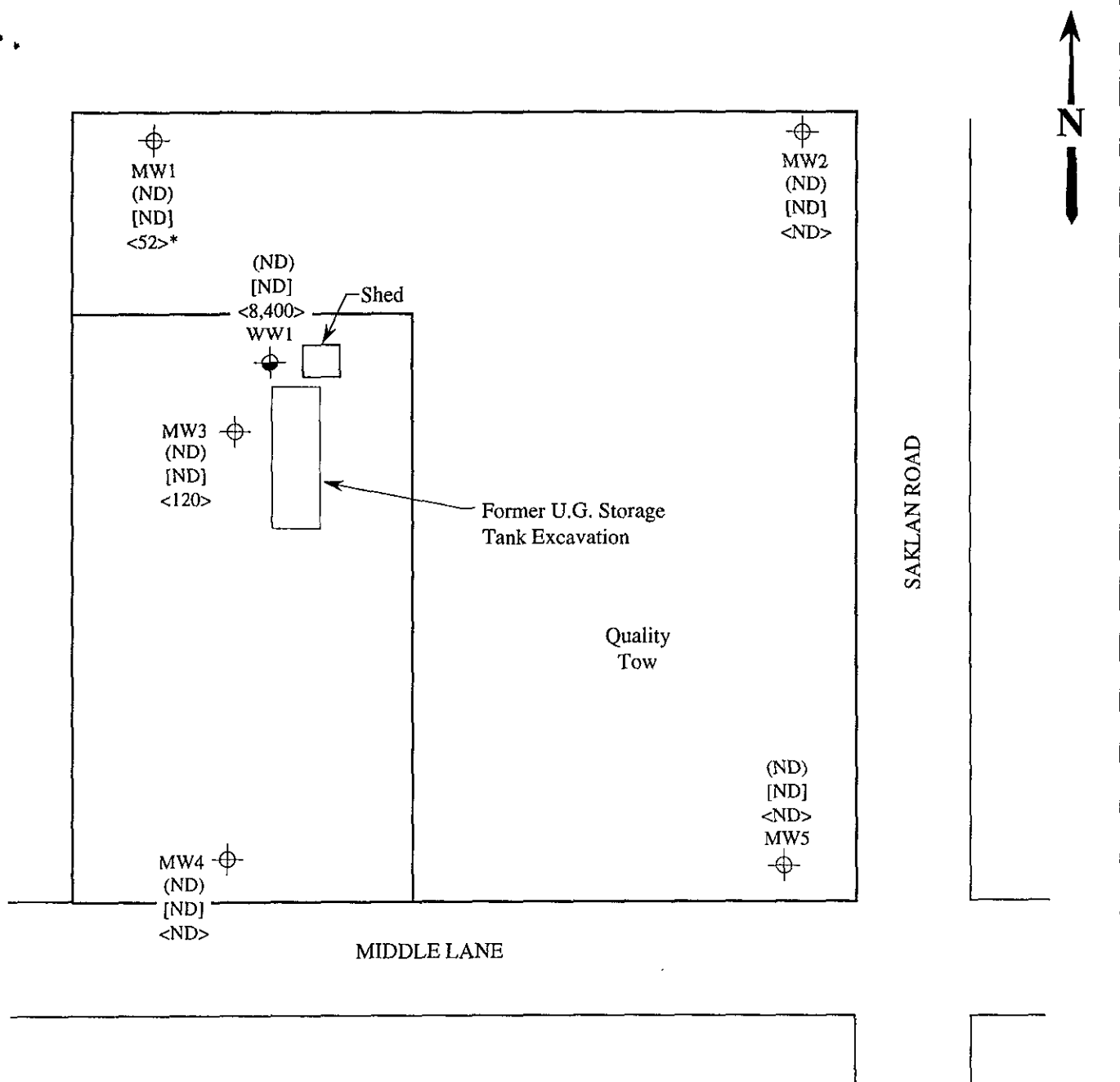


POTENTIOMETRIC SURFACE MAP FOR THE JANUARY 17, 1996 MONITORING EVENT

**KAPREALIAN ENGINEERING
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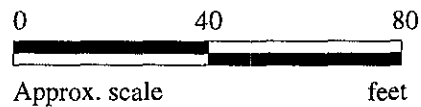
**BERKELEY LAND CO.
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HAYWARD, CALIFORNIA**

**FIGURE
5**



LEGEND

- ⊕ Monitoring well
- Water well
- () Concentration of TPH as gasoline in $\mu\text{g/L}$
- [] Concentration of benzene in $\mu\text{g/L}$
- < > Concentration of TPH as diesel in $\mu\text{g/L}$
- ND Non-detectable



* The lab reported that the hydrocarbons detected did not appear to be diesel.

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON JANUARY 17, 1996



**BERKELEY LAND CO.
23555 SAKLAN ROAD
HAYWARD, CALIFORNIA**

**FIGURE
6**

APPENDIX A

93481124

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. CA10981762250781124		Manifest Document No. 124		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address BEXLEY LAND GRON 4550 SAN ANTONIO AVE, EMERYVILLE 94608				2355 S SAKLAW RD HAYWARD CA				A. State Manifest Document Number 93481124					
4. Generator's Phone (570) 420-5636				6. US EPA ID Number CAD009466392				C. State Transporter's ID 480808					
5. Transporter 1 Company Name Erickson, Inc.				7. Transporter 2 Company Name				D. Transporter's Phone 510-235-1396					
9. Designated Facility Name and Site Address Gibson Oil/Pilot Petroleum 475 Sea Port Blvd. Redwood City, CA. 94063				10. US EPA ID Number CAD043260702				G. State Facility's ID					
								H. Facility's Phone 415-369-5541					
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste Number				
a. RQ Hazardous Waste Liquids NOS (Benzene) 9 NA 3082, PG III D018 ERG #31						0611	TIT	11500	G				
b.													
c.													
d.													
J. Additional Descriptions for Materials Listed Above Hydrocarbon Mixture With Water (99% Water, 1% Hydrocarbons)						K. Handling Codes for Wastes Listed Above							
						a.							
						b.							
						c.							
15. Special Handling Instructions and Additional Information Gibson Oil Waste Stream Profile # 10001 ERG 31 24 Hr. Contact NARM ALERTS 24 Hr. Phone# (570) 420-5636 JOB # 964400 P.O.# E 16754													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.													
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.													
Printed/Typed Name DIRIAN MELKOLIN				Signature <i>Dirian Melkolin</i>				Month 11		Day 10		Year 94	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name RICH POLLASTRINI 2V39				Signature <i>Rich Pollastrini</i>				Month 11		Day 10		Year 94	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature				Month		Day		Year	
19. Discrepancy Indication Space													
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.													
Printed/Typed Name				Signature				Month		Day		Year	

DO NOT WRITE BELOW THIS LINE.