KAPREALIAN ENGINEERING
INCORPORATED

February 8, 1994

Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Ms. Madhulla Logan

RE: Site Investigation Summary
Berkeley Land Company
51st Street & Telegraph Avenue
Oakland, California

Dear Ms. Logan:

This letter is written to follow up on our January 24, 1994, telephone conversation, and on behalf of the property owner (Berkeley Land Co.) to request site closure. Included is a summary of the subsurface investigation/remediation that has been conducted by Kaprealian Engineering, Inc. (KEI) at the subject property to date.

DIRECTION OF GROUND WATER FLOW

On June 29, 1993, the measured depth to ground water in the existing monitoring wells ranged from 12.15 to 17.72 feet below grade. The ground water flow direction appeared to be predominantly to the southwest, as shown on the attached Figure 1. The hydraulic gradient at the site on June 29, 1993, varied between approximately 0.03 and 0.008, based on the water level data collected from the monitoring wells prior to purging. The ground water monitoring data is presented in Table 1.

FILE REVIEW OF ADJACENT SITES

On September 9, 1993, a representative of KEI reviewed the files of the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, in order to determine if the activities at any adjacent sites may be contributing (or may have contributed) to the ground water contamination detected at the subject property. KEI attempted to review the files for the following nearby sites: 1) Marshall Steel Dry Cleaners (Telegraph Business Park), 5427 Telegraph Avenue; 2) PG&E, 51st Street; 3) Chevron, 5101 Telegraph Avenue; 4) Arco, 5131 Telegraph Avenue, and; 5) Dollar Cleaners, 4868 Telegraph Avenue.

1. Marshall Steel Dry Cleaners: No files were found at the RWQCB. This site appears to be located approximately 1,000 feet upgradient of the Berkeley Land Company property.

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: 510.602.5100 Fax: 510.687.0602

2. PG&E: No files were found at the RWQCB. This site is located less than 100 feet to the north and appears to be located partially upgradient of the Berkeley Land Company property.

3. Chevron: A quarterly ground water monitoring and sampling report dated June 17, 1992, was reviewed. Ground water samples collected from the Chevron site are analyzed for total petroleum hydrocarbons (TPH) as gasoline and benzene, toluene, ethylbenzene, and xylenes only. This site is located approximately 300 feet to the north-northeast, and appears to be located upgradient of the Berkeley Land Company property.

4. Arco: The analytical results of the ground water samples collected during the period of March through October of 1992 at the site (by RESNA) indicated concentrations of tetrachloroethene (PCE) of up to 23 ppb. Additionally, trichloroethene (TCE) and dichloroethane (DCE) have been detected at concentrations of up to 2.2 ppb and 0.5 ppb, respectively. The Arco site is located approximately 800 feet to the northwest of the Berkeley Land Company property. Based on the southwest ground water flow direction reported by RESNA, the subject Arco site appears to be located crossgradient of the subject Berkeley Land Company property and downgradient of the Marshall Steel Cleaners site.

5. Dollar Cleaners: No files were found at the RWQCB. This site is located approximately 100 feet to the east-southeast, and appears to be located partially upgradient of the Berkeley Land Company property.

On September 13, 1993, a representative of KEI reviewed the file for the Marshall Steel Cleaners site at the City of Oakland Fire Prevention Bureau. A report dated July 21, 1992, by Sierra Environmental Services was contained in the file. Based on this report, during the period of April 30 through May 22, 1992, a total of 17 underground storage tanks and associated piping were removed from the subject property. The tanks consisted of one 10,000 gallon underground gasoline storage tank, one 2,500 gallon underground diesel storage tank, one 1,000 gallon cleaning solvent tank, nine 3,500 gallon cleaning solvent tanks, and five cleaning solvent waste storage tanks in sizes ranging from 500 gallons to 1,500 gallons. Holes of up to four inches in diameter were observed in the bottoms of 13 of the 15 solvent and waste solvent tanks.

The analytical results of the soil samples collected during tank removal indicated detectable concentrations of tetrachloroethene (PCE) of up to 210 ppm (210,000 ppb). Additionally, trichloroethene (TCE), cis-1,2-dichloroethene (DCE), and stoddard solvent

were detected in the soil at concentrations of up to 35 ppm, 5.2 ppm, and 1,580 ppm, respectively. Although overexcavation was conducted to a depth of 25 feet below grade below one of the 550 gallon solvent waste tanks, there is no indication whether additional soil samples were collected or whether ground water was encountered.

KEI's file reviews to date indicate that a regional chlorinated solvent problem appears to exist in the upgradient vicinity of the subject Berkeley Land Company property. Based on the reported condition of the tanks removed from the Marshall Steel Cleaners site, other potential sources in the area, and based on the apparent direction of ground water flow, it appears that the solvent contamination detected in the ground water at the Berkeley Land Company property has most likely emanated from an off-site upgradient source(s).

ANALYTICAL RESULTS AND REGULATORY LIMITS

The attached Tables 2 through 7 present the analytical results of all of the soil and ground water samples collected by KEI at the subject property to date. As requested, accepted regulatory limits have been included in the tables. Soil sample point locations are shown on the attached Figure 3, and the existing monitoring wells are shown on the attached Figures 1 and 2.

The regulatory limits that are included for the ground water samples denote the maximum contaminant levels (MCL) as listed in the U.S. Environmental Protection Agency (EPA), Drinking Water Standards and Health Advisories Table dated May 1993. The California Department of Health Services (DOHS) MCL's are listed where applicable.

The RWQCB, San Francisco Bay Region, adopted Ground Water Basin Plan Amendments on October 21, 1992. The following two paragraphs are excerpted from Pages 19 and 20 of the aforementioned document, and pertain to the RWQCB's policy on soil cleanup levels at sites within their jurisdiction:

1. "Several Regional Water Board Orders, adopted primarily for Superfund sites, include cleanup standards of 1 mg/kg (ppm) for total VOC's (EPA method 8010 constituents) and 10 ppm for semi-volatiles (EPA method 8270). This standard is based on the modeling results at a Superfund site in Region, the existence of similar standards in the state of New Jersey, and the professional judgement of Regional Water Board staff. As this is a cleanup standard for total VOC's, levels for individual constituents are generally significantly lower than 1 ppm."

2. "The (Tri-Regional) Guidelines use 100 ppm Total Petroleum Hydrocarbons in soil as one screening tool to determine if further investigation of ground water is warranted. The 100 ppm level is not a 'generic' cleanup level."

Previous soil and ground water samples were collected at the subject property by J.H. Kleinfelder Associates. The analytical results of the subject soil samples indicated that the concentrations of each of the metals analyzed for was below the total threshold limits set forth by the "California Code of Regulations, Title 22." Additionally, the analytical results of the ground water sample indicated that the concentrations of each of the metals analyzed for was below the MCL's for drinking water set forth by the U.S. EPA. The analytical results of the soil and ground water samples collected by Kleinfelder Associates and the associated figure showing sample point locations are included in Appendix A.

In summary, the analytical results of all of the "final" verification soil samples collected at the subject property indicate concentrations of all analytes below the indicated regulatory limits. Based on the analytical results of all of the soil samples collected and evaluated to date, it appears that the majority of the hydrocarbon contaminated soil in the vicinity of the areas investigated has been removed from the subject property. Therefore, no further soil excavation appears to be warranted at the subject property.

Additionally, the analytical results of all of the ground water samples collected at the subject property indicate concentrations of all analytes below the indicated regulatory limits, with the exception of four identified EPA method 8010 constituents. However, as previously noted, a regional chlorinated solvent problem appears to exist in the upgradient vicinity of the subject Berkeley Land Company property.

BENEFICIAL USES OF GROUND WATER

The subject property is located approximately 5,000 feet northwest (in an apparent cross-gradient direction) of Glen Echo Creek, which is a tributary to Lake Merritt. Based on the Water Quality Control Plan for the RWQCB, San Francisco Bay Basin dated December 1986, the existing and potential beneficial uses of Lake Merritt are as follows:

- Water Contact Recreation
- Non-Contact Water Recreation
- Wildlife Habitat
- Fish Spawning
- Estuarine Habitat

There are no known discharges from the subject property to surface waters, including storm drains and Glen Echo Creek or its tributaries.

The RWQCB's Basin Plan also contains beneficial uses applicable to ground water underlying the subject property. The existing beneficial uses of ground water at and in the vicinity of the subject property are as follows:

- Municipal Supply
- Industrial Process Water
- Industrial Service Supply
- Agricultural Supply

WELL SURVEY

KEI recently contacted the Alameda County Public Works Agency (ACPWA), Water Resources Section, to conduct a survey of all wells within a 1/2-mile radius of the site. The survey indicated the existence of five water wells within a 1/2-mile radius of the site. The water wells identified in the study area, along with well information, survey numbers, owners, and locations are listed in Table 8. The approximate locations of the water wells are shown on the attached Well Location Map. The ACPWD listing of all wells including monitoring wells, cathodic protection wells, abandoned wells, and exploratory borings, is included in Appendix B.

Domestic wells are located at sites #1 and #5, an industrial well is located at site #2, and irrigation wells are located at sites #3 and #4. Based on the previously reported southwest gradient at the subject property, sites #1 and #2 are located in the apparent upgradient direction from the subject property, and sites #3, #4, and #5 are located cross-gradient of the subject property. Based on a southwest direction of ground water flow and the locations of the identified water wells, it does not appear likely that any residual contamination that may exist at the subject property could impact the identified wells.

REQUEST FOR CLOSURE AND APPROVAL FOR PROPERTY DEVELOPMENT

Therefore, based on the analytical results of all of the samples collected and evaluated by KEI to date, the apparent upgradient source of contamination (and resultant regional EPA method 8010

constituent problem), and the information obtained from the well survey, KEI requests (on behalf of the property owner, Berkeley Land Co.) case closure and approval for the development of the subject property . Upon approval from the regulatory agencies, KEI will submit a work plan for the proper destruction of the five existing on-site ground water monitoring wells.

If you have any questions, please do not hesitate to call me at (510) 602-5104.

Sincerely,

Kaprealian Engineering, Inc.

Robert H. Kezerian
Project Manager

RHK:jad\ML0208

Attachments: Tables 1 through 8
Figures 1, 2 & 3
Well Location Map
Appendix A - Kleinfelder Associates Data
Appendix B - ACPWD Well Listing

cc: Norm Alberts, Berkeley Land Co.
Rick Montesano, Paradiso Construction

TABLE 1

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)	Product Thickness (feet)	Sheen	Water Purged (gallons)
(Monitored and Sampled on June 29, 1993)					
MW1	99.04	16.55	0	No	6
MW2	95.29	15.98	0	No	6
MW3	94.72	17.27	0	No	8
MW4	96.30	12.15	0	No	12
MW5	93.99	13.45	0	No	11
(Monitored and Developed on June 22, 1993)					
MW1	99.10	16.49	0	--	50
MW2	95.35	15.92	0	--	45
MW3	94.72	17.72	0	--	40
MW4	96.33	12.12	0	--	50
MW5	89.63	17.81	0	--	30

Well #	Surface Elevation* (feet)
MW1	115.59
MW2	111.27
MW3	112.44
MW4	108.45
MW5	107.44

-- Sheen determination was not performed.

* The elevation of the tops of the well covers have been surveyed relation to MSL, per City of Oakland Benchmark #2874 (elevation = 116.41 MSL.)

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER ppb

Date	Sample Number	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
6/29/93	MW1*	ND	76♦	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	0.64	ND	ND	ND
MCL		N/A	N/A	1	1,000	680	1,750

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

* Total oil and grease (TOG) and all EPA method 8270 constituents were non-detectable.

MCL = Maximum Contaminant Level as listed in the U.S. Environmental Protection Agency, Drinking Water Standards and Health Advisories Table dated May 1993. The California Department of Health Services (DOHS) MCL's are listed, where applicable.

N/A = Not applicable.

ND = Non-detectable.

Results in parts per billion (ppb), unless otherwise indicated.

TABLE 3

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	cis-1,2-Dichloro-ethene	Tetrachloro-ethene	Trichloro-ethene	Vinyl Chloride
6/29/93	MW1*	ND	250	ND	ND
	MW2*	ND	78	ND	ND
	MW3*	5.5	130	11	ND
	MW4*	ND	16	0.68	ND
	MW5*	24	17	5.9	3.0
MCL		6	5	5	0.5

* All EPA method 8010 constituents were non-detectable, except for the above compounds.

ND = Non-detectable.

MCL = Maximum Contaminant Level as listed in the U.S. Environmental Protection Agency, Drinking Water Standards and Health Advisories Table dated May 1993. The California Department of Health Services (DOHS) MCL's are listed, where applicable.

Results in parts per billion (ppb), unless otherwise indicated.

TABLE 4

SUMMARY OF ANALYTICAL RESULTS
SOIL

Date	Sample Number	Depth (feet)	TPH as Diesel	TOG	PCE (ppb)	2-Methyl-naphthalene (ppb)
9/30/93	EB3-N*	16.5	ND	ND	--	ND
	EB3-S*	16.5	ND	ND	--	ND
	EB3-W*	16.5	ND	ND	--	ND
9/29/93	EB3-E*	16.5	ND	ND	--	ND
	EB6-N	14.5	--	570	--	--
	EB6-S	14.5	--	52	--	--
	EB6-E	14.5	--	680	--	--
10/15/93	EB6-N2	14.5	--	ND	--	--
	EB6-S2	14.5	--	ND	--	--
	EB6-E2	14.5	--	ND	--	--
9/29/93	EB8-N	8.0	--	ND	--	--
	EB8-S	8.0	--	ND	--	--
	EB8-W	8.0	--	ND	--	--
	EB8-E	8.0	--	ND	--	--
9/30/93	EB15-N	5.0	--	210	--	--
	EB15-S	5.0	--	ND	--	--
	EB15-W	5.0	--	54	--	--
	EB15-E	5.0	--	ND	--	--
10/15/93	EB15-N2	5.0	--	460	--	--
	EB15-W2	5.0	--	82	--	--
10/22/93	EB15-N3	5.0	--	ND	--	--
	EB15-W3	5.0	--	ND	--	--
9/30/93	EB16-N	7.0	--	ND	--	--
	EB16-S	7.0	--	ND	--	--
	EB16-W	7.0	--	ND	--	--
	EB16-E	7.0	--	ND	--	--

TABLE 4 (Continued)

SUMMARY OF ANALYTICAL RESULTS
SOIL

Date	Sample Number	Depth (feet)	TPH as Diesel	TOG	PCE (ppb)	2-Methyl-naphthalene (ppb)
9/30/93 (Con't)	EB20-N**	15.0	--	--	120	--
	EB20-S**	15.0	--	--	50	--
	EB20-W**	15.0	--	--	77	--
	EB20-E**	15.0	--	--	170	--
Regulatory Limit			100+	100+	1,000++	10,000++

NOTE: N, S, E, & W label the sidewall samples collected on the north, south, west, and east sidewalls, respectively.

ND = Non-detectable.

-- Indicates analysis was not performed.

PCE = Tetrachloroethene

* All EPA method 8270 constituents were non-detectable.

** All EPA method 8010 constituents were non-detectable, except for PCE as noted above.

\+ The regulatory limits for TPH as diesel and TOG reflect the generally accepted "screening levels" that are provided in the RWQCB Tri-Regional Guidelines dated August 1990.

++ The regulatory limits for EPA method 8010 and 8270 constituents reflect the generally accepted "cleanup standards" that are provided in the RWQCB Ground Water Basin Plan Amendments dated October 21, 1992.

Results in parts per million (ppm), unless otherwise indicated.

TABLE 5

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG
7/28/93	EB1(5)	ND	ND	ND	ND	ND	ND	ND
	EB1(10)	ND	ND	ND	ND	ND	ND	ND
	EB1(15)	1.0♦	1.2	ND	0.0073	0.0060	0.016	ND
7/29/93	EB2(5.5)	--	ND	ND	ND	ND	ND	ND
	EB2(10.5)	--	ND	ND	ND	ND	ND	ND
	EB3(5)	5.9♦♦	2.7	0.013	0.012	0.016	0.051	270
	EB3(10.5)	8.2♦♦	10*	ND	ND	0.026	0.059	ND
	EB3(15.5)	290♦♦	440*	ND	1.4	2.6	5.9	70
7/28/93	EB4(5)	--	ND	ND	ND	ND	ND	ND
	EB4(10)	--	ND	ND	ND	ND	ND	ND
	EB4(15)	--	ND	ND	ND	ND	ND	ND
	EB5(5)	ND	ND	ND	ND	ND	ND	ND
	EB5(10)	ND	ND	ND	ND	ND	ND	ND
	EB5(15)	ND	ND	ND	ND	ND	ND	ND
7/29/93	EB6A(5)	4.4♦♦	ND	ND	ND	ND	ND	ND
	EB6B(10.5)	8.4♦♦	ND	ND	ND	ND	ND	1,700
	EB6B(14.5)	11.0♦♦	ND	ND	ND	ND	ND	210
	EB7(5)	--	ND	ND	ND	ND	ND	ND
	EB7(10)	--	ND	ND	ND	ND	ND	ND
	EB7(15)	--	ND	ND	ND	ND	ND	ND
	EB8(5.5)	--	ND	ND	ND	ND	ND	9,900
	EB8(11)	--	1.5	0.027	0.025	0.0063	0.030	1,200
	EB8(13)	--	1.1	0.019	0.016	0.0052	0.023	90
7/27/93	EB9(5)	ND	ND	ND	ND	ND	ND	ND
	EB9(10)	ND	ND	ND	ND	ND	ND	ND
7/26/93	EB10(10)	--	ND	ND	ND	ND	ND	ND
	EB10(14.5)	--	ND	ND	ND	ND	ND	ND
7/28/93	EB11(5.5)	ND	ND	ND	ND	ND	ND	ND
	EB11(10)	ND	ND	ND	ND	ND	ND	ND
	EB11(15)	ND	ND	ND	ND	ND	ND	ND

TABLE 5 (Continued)

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG
7/30/93	EB12(6)	ND	ND	ND	ND	ND	ND	ND
	EB12(10.5)	ND	ND	ND	ND	ND	ND	ND
	EB13(5.5)	--	ND	ND	ND	ND	ND	ND
	EB13(11)	--	ND	ND	ND	ND	ND	ND
7/28/93	EB14(5)	ND	ND	ND	ND	ND	ND	ND
	EB14(10)	ND	ND	ND	ND	ND	ND	ND
	EB14(13)	ND	ND	ND	ND	ND	ND	ND
	EB15(5)	--	ND	ND	ND	ND	ND	230
	EB15(12)	--	ND	ND	0.0071	0.0052	0.011	ND
	EB16(6.5)	--	ND	ND	ND	ND	0.0071	160
	EB16(10.5)	--	ND	ND	ND	ND	ND	190
	EB16(12)	--	ND	ND	ND	ND	ND	ND
7/29/93	EB17(5)	--	ND	ND	ND	ND	ND	ND
	EB17(10)	--	ND	ND	ND	ND	ND	ND
	EB17(15)	--	ND	ND	ND	ND	ND	ND
7/28/93	EB18(5)	ND	ND	ND	ND	ND	ND	ND
	EB18(10)	ND	ND	ND	ND	ND	ND	ND
	EB18(14.5)	ND	ND	ND	0.0053	ND	0.0065	ND
	EB19(7)	--	ND	ND	ND	ND	ND	ND
	EB19(12)	--	ND	ND	ND	ND	ND	ND
	EB19(15)	--	ND	ND	0.0071	0.0052	0.011	ND
7/30/93	EB20(5.5)	ND	ND	ND	ND	ND	ND	ND
	EB20(10.5)	1.9	ND	ND	ND	ND	ND	ND
	EB20(16)	ND	ND	ND	ND	ND	ND	ND
Regulatory Limit		100+	100+	N/A	N/A	N/A	N/A	100+

TABLE 5 (Continued)

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

ND = Non-detectable.

N/A = Not applicable.

-- Indicates analysis was not performed.

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

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

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

\+ The regulatory limits for TPH as gasoline, TPH as diesel, and TOG reflect the generally accepted "screening levels" that are provided in the RWQCB Tri-Regional Guidelines dated August 1990.

Results in parts per million (ppm), unless otherwise indicated.

TABLE 6

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Tetrachloroethene	2-Methylnaphthalene
7/28/93	EB1(5)	ND	ND
	EB1(10)	ND	ND
	EB1(15)	ND	ND
7/29/93	EB3(5)	ND	ND
	EB3(10.5)	ND	150
	EB3(15.5)	ND	1,900
7/28/93	EB4(5)	--	ND
	EB4(10)	--	ND
	EB4(15)	--	ND
	EB5(5)	ND	--
	EB5(10)	ND	--
	EB5(15)	ND	--
7/29/93	EB6A(5)	ND	ND
	EB6B(10.5)	12	ND
	EB6B(14.5)	ND	ND
	EB9(5)	ND	--
	EB9(10)	ND	--
7/28/93	EB11(5.5)	ND	ND
	EB11(10)	ND	ND
	EB11(15)	ND	ND
7/30/93	EB12(6)	ND	--
	EB12(10.5)	5.2	--
7/28/93	EB14(5)	ND	--
	EB14(10)	ND	--
	EB14(13)	ND	--
7/29/93	EB17(5)	ND	--
	EB17(10)	ND	--
	EB17(15)	ND	--
7/28/93	EB18(5)	ND	--
	EB18(10)	ND	--
	EB18(14.5)	42	--

TABLE 6 (Continued)

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Tetrachloroethene	2-Methylnaphthalene
7/30/93	EB20(5.5)	66	ND
	EB20(10.5)	770	ND
	EB20(16)	2,400	ND
Regulatory Limit		1,000+	10,000+

NOTE: All EPA method 8010 and 8270 constituents were non-detectable in the soil samples analyzed, except as shown above.

-- Indicates analysis was not performed.

ND = Non-detectable.

\+ The regulatory limits for EPA method 8010 and 8270 constituents reflect the generally accepted "cleanup standards" that are provided in the RWQCB Ground Water Basin Plan Amendments dated October 21, 1992.

Results in parts per billion (ppb), unless otherwise indicated.

TABLE 7

SUMMARY OF ANALYTICAL RESULTS
WATER

Sample Number	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG (ppm)
			(Collected on October 14, 1993)			
EB3-W*	ND	ND	ND	ND	1.7	ND
MCL	N/A	1	1,000	680	1,750	N/A

NOTE: The water sample was collected from the excavation. The results of the analysis may not be representative of formation water, and should be used for comparative informational purposes only.

MCL = Maximum Contaminant Level as listed in the U.S. Environmental Protection Agency, Drinking Water Standards and Health Advisories Table dated May 1993. The California Department of Health Services (DOHS) MCL's are listed, where applicable.

N/A = Not applicable.

ND = Non-detectable.

* All EPA method 8270 and 8010 constituents were non-detectable, except for cis-1,2-dichloroethene, which was detected at a concentration of 0.98 ppb.

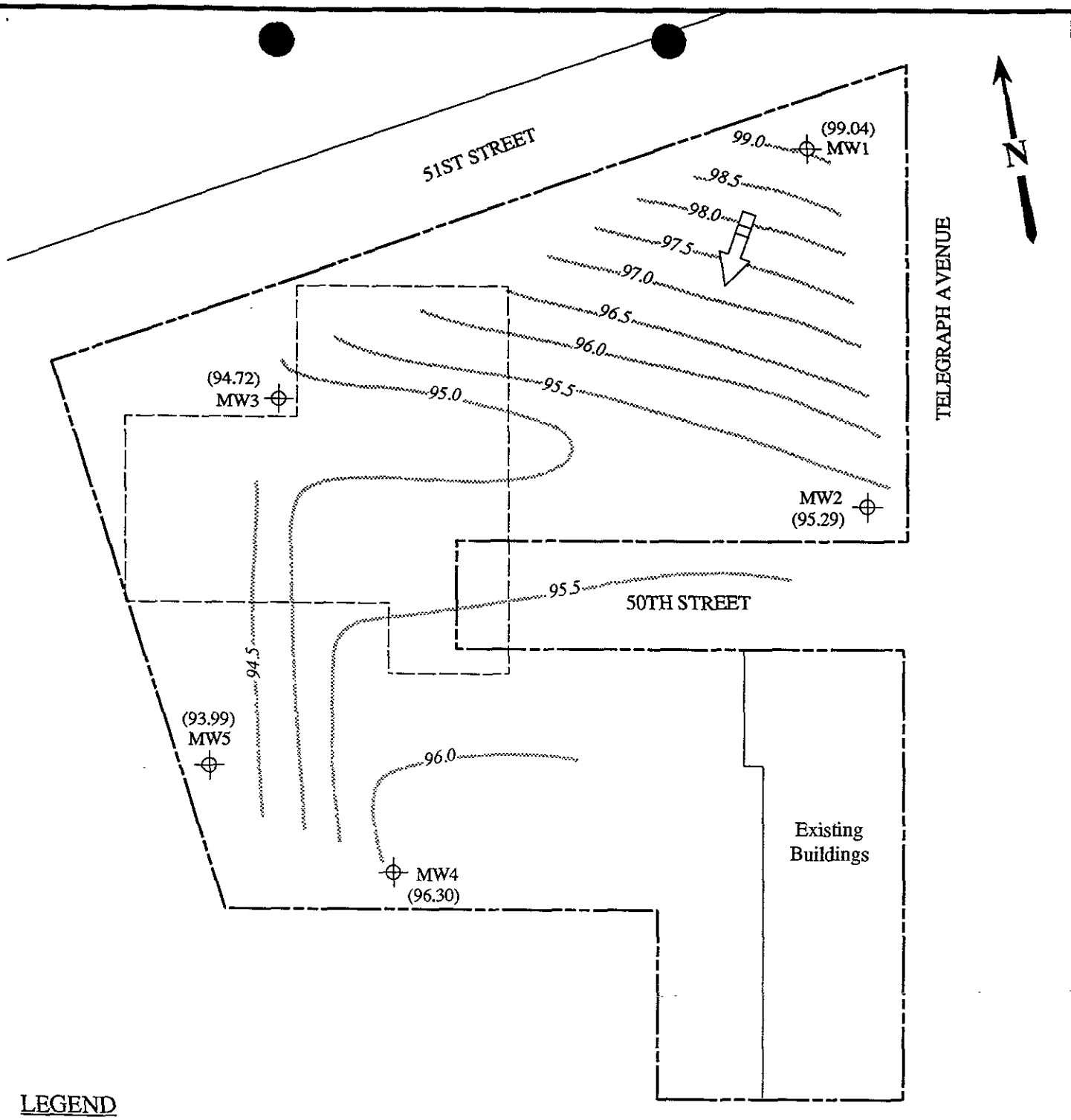
Results in parts per billion (ppb), unless otherwise indicated.

TABLE 8

WATER WELLS WITHIN STUDY AREA

Survey No.	State No.	Owner	Location	Well Use	Depth to Ground Water at Site (feet)	Date
#1	1S/4W-13M1	Angela Delucchi	5629 Vincente St.	Domestic	5	NA
#2	1S/4W-14J1	Marshall Steel Co.	5427 Telegraph Ave.	Industrial	NA	NA
#3	1S/4W-14R13	Children's Hospital	747 52nd St.	Irrigation	21	12/91
#4	1S/4W-24E1	Ladies Relief Society	360 42nd St.	Irrigation	9	NA
#5	1S/4W-24E4	Robert Westwood	462 43rd St.	Domestic	NA	9/77

NA = Not available.



LEGEND

- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- Direction of ground water flow
- Contours of ground water elevation

0 60 120

Approx. scale feet

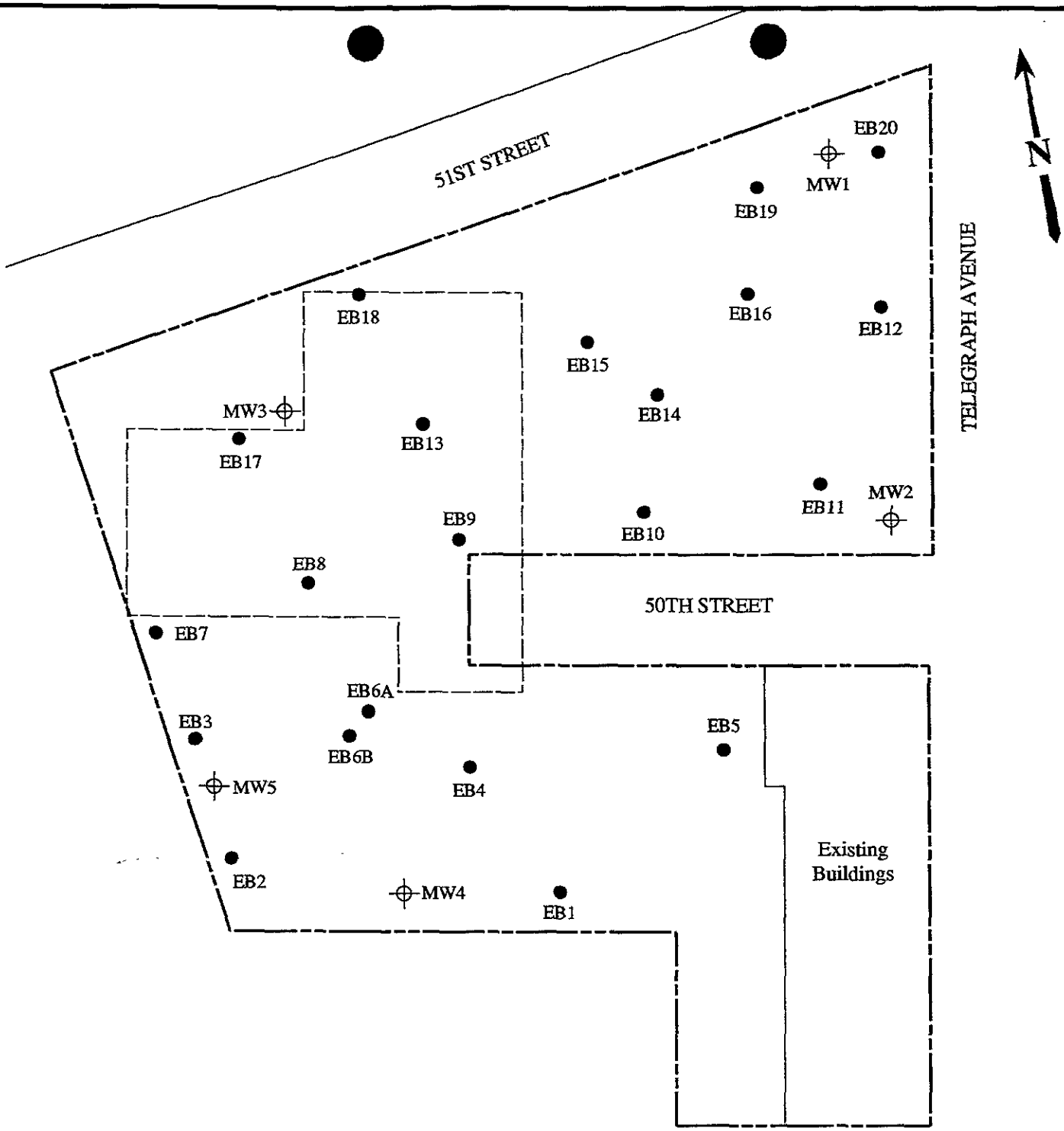
Base map modified from an Advanced Soil Technology Inc. site plan

POTENTIOMETRIC SURFACE MAP FOR THE JUNE 29, 1993 MONITORING EVENT

KAPREALIAN ENGINEERING
INCORPORATED

BERKELEY LAND COMPANY
51ST STREET & TELEGRAPH AVE.
OAKLAND, CALIFORNIA

FIGURE
1



LEGEND

- ● Exploratory boring (by KEI)
- ⊕ Monitoring well (by others)

0 60 120

Approx. scale feet

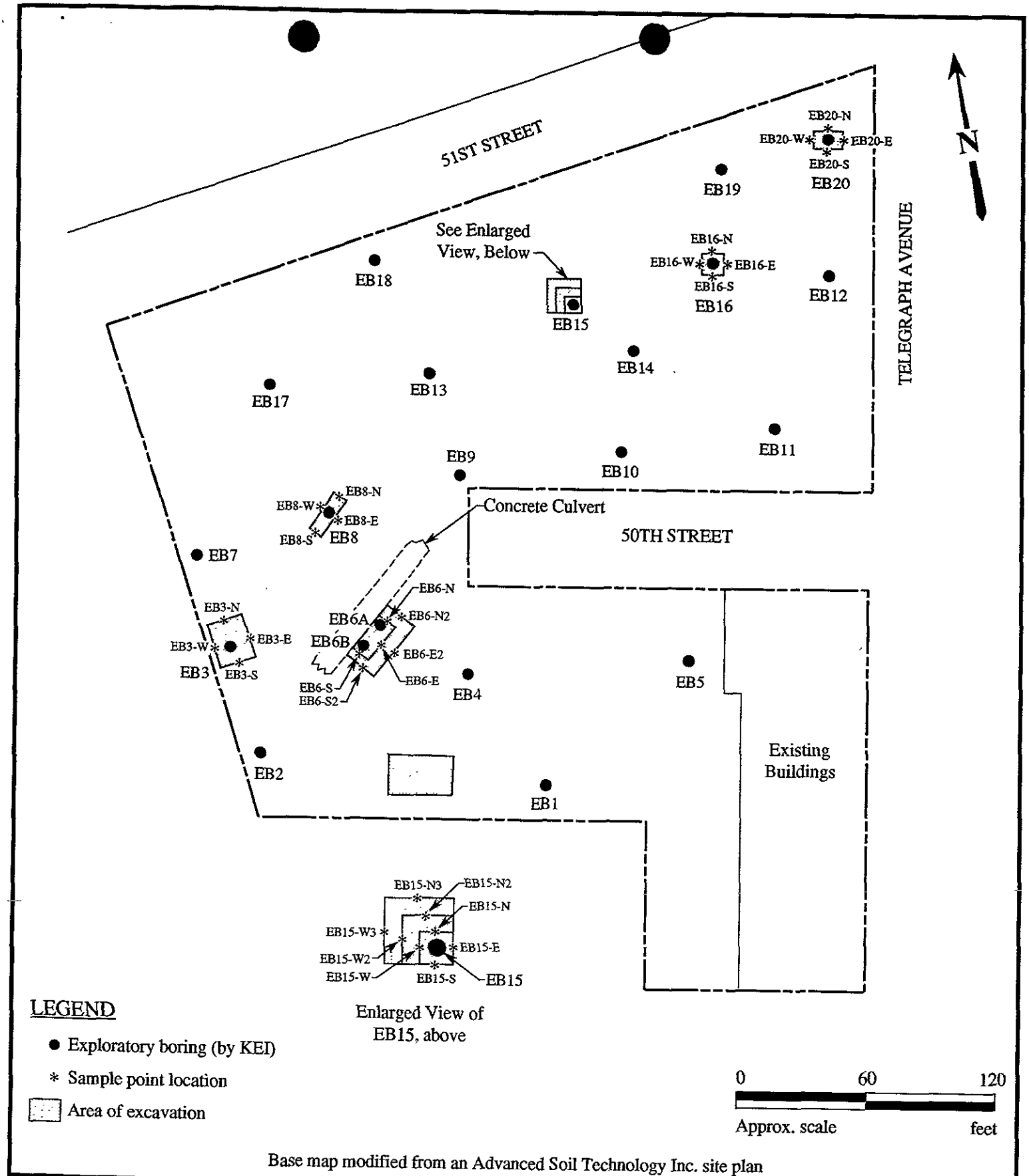
Base map modified from an Advanced Soil Technology Inc. site plan

EXPLORATORY BORING AND MONITORING WELL LOCATION MAP

KAPREALIAN ENGINEERING INCORPORATED

BERKELEY LAND COMPANY
51ST STREET & TELEGRAPH AVE.
OAKLAND, CALIFORNIA

FIGURE **2**



Base map modified from an Advanced Soil Technology Inc. site plan

SAMPLE POINT LOCATION MAP

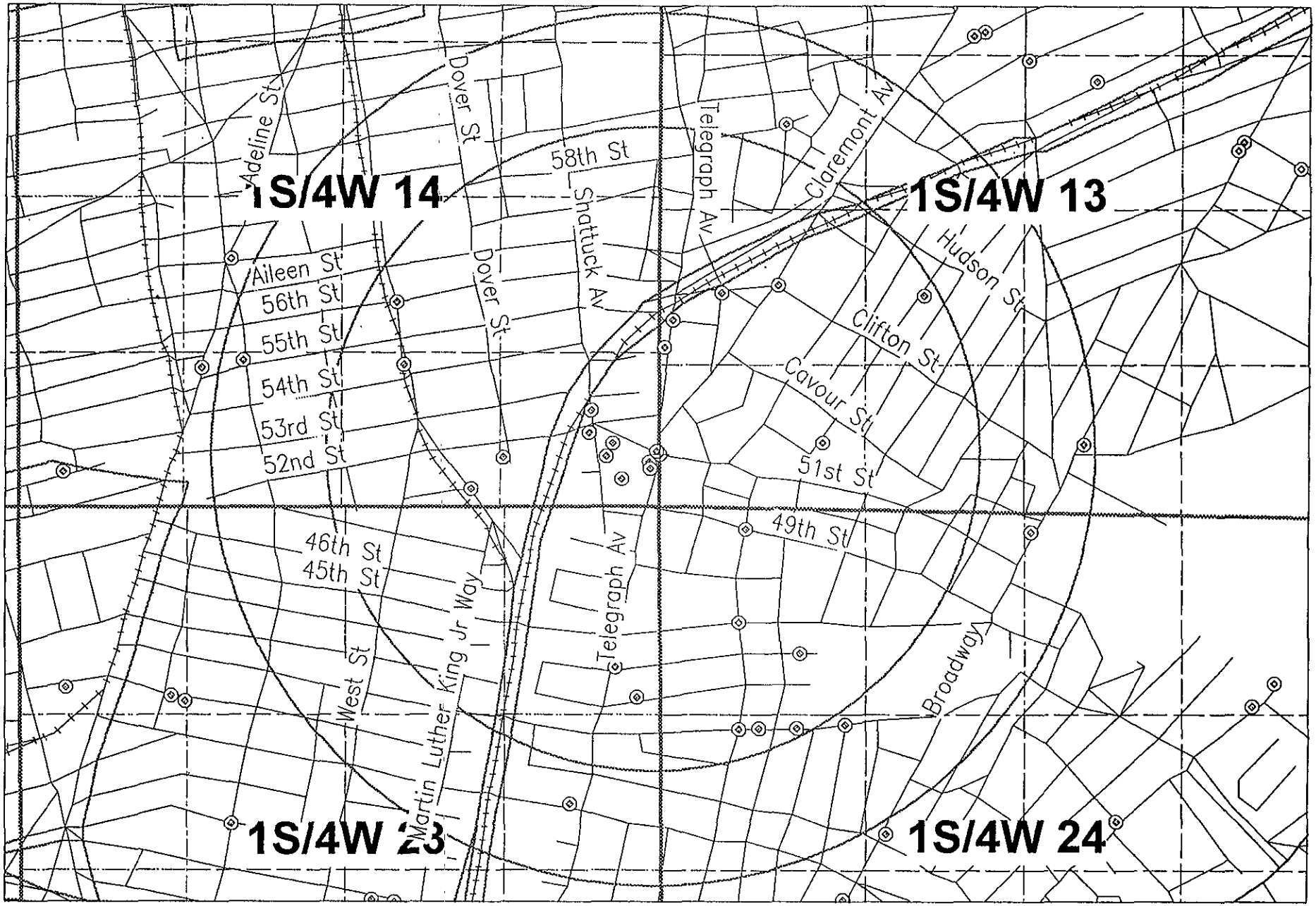
KAPREALIAN ENGINEERING INCORPORATED

BERKELEY LAND COMPANY
51ST STREET & TELEGRAPH AVE.
OAKLAND, CALIFORNIA

FIGURE **3**

.5 mile radius from 51st St. and Telegraph Ave. (Page 1)

WELL #	CITY	ADDRESS	OWNER	PHONE	USE	DR.DATE	DIAM	TOT.DEPTH	DTW	ST.ELEV	WA.ELEV	YIELD	LOG	WQ	WL	DATAORGN	MARGIN
1S/4W 13L 1	OAK	5370 SHAFTER	CARY	0	ABN	/00	0	60	11	0	0	0	?	0	1		L
1S/4W 13M 1	OAK	5629 VINCENTE ST	ANGELA DELUCCHI	0	DOM	?	8	75	5	0	0	0	?	0	1		L
1S/4W 13M 2	OAK	CLIFTON & CLAREMONT AC	PG&E	0	CAT	8/75	0	120	0	0	0	0	D	0	0		L
1S/4W 13M 3	OAK	5500 Telegraph Avenue	Chevron, USA, Inc.	0	MON	11/89	2	30	13	0	0	0	D	0	0		D
1S/4W 13M 4	OAK	5500 Telegraph Avenue	Chevron, USA, Inc.	0	MON	11/89	2	29	13	0	0	0	D	0	0		D
1S/4W 13M 5	OAK	5500 Telegraph Avenue	Chevron, USA, Inc.	0	MON	11/89	2	29	13	0	0	0	D	0	0		D
1S/4W 13N 1	OAK	5168 SHAFTER	MRS. H. GOTELLI	0	ABN	?	10	85	9	0	0	0	?	0	1		L
1S/4W 14J 1	OAK	5427 TELEGRAPH	MARSHALL STEEL CO.	0	IND	?	8	40	0	0	0	0	?	0	1		L
1S/4W 14K 1	OAK	5425 Martin Luther King	BP Oil Company	0	MON	10/90	2	23	15	17	2	0	D	0	0		D
1S/4W 14K 2	OAK	5425 Martin Luther King	BP Oil Company	0	MON	10/90	4	28	11	83	72	0	G	0	0		D
1S/4W 14Q 1	OAK	5425 Martin Luther Kg Jr	BP Oil Co. MW-3	0	MON	10/92	2	25	13	85	72	0	G	0	0		D
1S/4W 14Q 2	OAK	5425 Martin Luther Kg Jr	BP Oil Co. MW-4	0	MON	10/92	2	25	13	83	70	0	G	0	0		D
1S/4W 14R	OAK	SHATTUCK AVE/49TH ST	OAKLAND SHOPPING CENTER	0	BOR	04/87	0	40	22	0	0	0	G	0	0		L
1S/4W 14R	OAK	51ST/M L KING JR WAY	CHILDREN'S HOSPITAL M. C.	0	BOR	12/87	0	51	19	94	43.	0	G	0	0		L
1S/4W 14R	OAK	Telegraph Ave && 51st St	Berkeley Farms	0	BOR*	7/93	4	17	15	0	0	0	G	0	0		D
1S/4W 14R 2	OAK	51ST/TELEGRAPH AVE	PACIFIC RIM DEVELOPMENT	0	MON	04/87	2	31	17	0	0	0	G	0	0		L
1S/4W 14R 3	OAK	51ST/TELEGRAPH AVE	PACIFIC RIM DEVELOPMENT	0	MON	04/87	2	36	16	0	0	0	G	0	0		L
1S/4W 14R 4	OAK	5101 Telegraph Ave.	Chevron	0	MON	9/90	2	24	11	0	0	0	G	1	2		D
1S/4W 14R 5	OAK	5101 Telegraph Ave.	Chevron	0	MON	11/90	2	30	19	0	0	0	D	0	0		D
1S/4W 14R 6	OAK	5101 Telegraph Ave.	Chevron	0	MON	11/90	2	30	15	0	0	0	D	0	0		D
1S/4W 14R 7	OAK	5101 Telegraph Ave.	Chevron	0	MON	11/90	2	30	17	0	0	0	D	0	0		D
1S/4W 14R 8	OAK	Telegraph Ave && 51st St	Berkeley Farm Land Co MW1	0	MON	11/91	2	25	19	0	0	0	G	0	0		D
1S/4W 14R 9	OAK	Telegraph Ave && 51st St	Berkeley Farm Land Co MW2	0	MON	11/91	2	25	21	0	0	0	G	0	0		D
1S/4W 14R10	OAK	Telegraph Ave && 51st St	Berkeley Farm Land Co MW3	0	MON	11/91	2	30	25	0	0	0	G	0	0		D
1S/4W 14R11	OAK	Telegraph Ave && 51st St	Berkeley Farm Land Co MW4	0	MON	11/91	2	30	21	0	0	0	G	0	0		D
1S/4W 14R12	OAK	Telegraph Ave && 51st St	Berkeley Farm Land Co MW5	0	MON	11/91	2	30	20	0	0	0	G	0	0		D
1S/4W 14R13	OAK	747 52nd St	Children's Hospital	0	IRR	12/91	7	130	21	0	0	0	D	0	0		D
1S/4W 14R14	OAK	5131 Shattuck Ave	ARCO Prod Co MW-1	0	MON	12/91	4	29	18	0	0	0	D	0	0		D
1S/4W 14R15	OAK	5131 Shattuck Ave	ARCO Products Co. MW-2	0	MON	12/91	4	32	18	0	0	0	D	0	0		D
1S/4W 14R16	OAK	5131 Shattuck Ave	ARCO Products Co. MW-3	0	MON	12/91	4	29	18	0	0	0	D	0	0		D
1S/4W 14R17	OAK	5131 Shattuck Ave	ARCO Products Co. MW-4	0	TES	10/92	4	27	17	0	0	0	G	0	0		D
1S/4W 14R18	OAK	5131 Shattuck Ave	ARCO Products Co. MW-5	0	TES	10/92	4	25	18	0	0	0	G	0	0		D
1S/4W 14R19	OAK	5131 Shattuck Ave	ARCO Products Co. MW-6	0	TES	10/92	4	27	18	0	0	0	G	0	0		D
1S/4W 14R20	OAK	5131 Shattuck Ave	ARCO Products Co. MW-7	0	TES	10/92	4	27	18	0	0	0	G	0	0		D
1S/4W 14R21	OAK	5101 Telegraph Ave.	Chevron MW1	0	MON	9/93	2	25	0	0	0	0	D	0	0		D
1S/4W 14R22	OAK	5101 Telegraph Ave.	Chevron MW2	0	MON	9/93	2	25	0	0	0	0	D	0	0		D
1S/4W 14R23	OAK	5101 Telegraph Ave.	Chevron MW3	0	MON	9/93	2	27	0	0	0	0	D	0	0		D
1S/4W 14R24	OAK	5101 Telegraph Ave.	Chevron MW4	0	MON	9/93	2	22	0	0	0	0	D	0	0		D
1S/4W 14R25	OAK	5101 Telegraph Ave.	Chevron MW5	0	MON	9/93	2	22	0	0	0	0	D	0	0		D
1S/4W 23A 1	OAK	4400 TELEGRAPH AVE.	WAYNE KELLY AUTO PARTS	0	MON	11/88	2	35	14	0	0	0	G	0	0		L
1S/4W 23A 2	OAK	490 43rd St.	Wells Fargo Bank MW-1	0	MON	4/93	2	23	12	0	0	0	G	0	0		D
1S/4W 23A 3	OAK	490 43rd St.	Wells Fargo Bank MW-2	0	MON	4/93	2	22	12	0	0	0	G	0	0		D
1S/4W 23A 4	OAK	490 43rd St.	Wells Fargo Bank MW-3	0	MON	4/93	2	22	13	0	0	0	G	0	0		D
1S/4W 23D 1	OAK	44TH ST & ADELINE	PACIFIC GAS AND ELECTRIC	0	CAT	5/73	0	120	0	0	0	0	D	0	0		L
1S/4W 24D 1	OAK	WEBSTER ST & 45TH ST	EBMUD	0	CAT	5/75	0	53	25	0	0	0	D	0	0		L
1S/4W 24D 2	OAK	WEBSTER ST & 49TH ST	EBMUD	0	CAT	5/75	0	53	0	0	0	0	D	0	0		L
1S/4W 24D 3	OAK	49TH & WEBSTER ST	PG&E	0	CAT	2/76	0	120	0	0	0	0	D	0	0		L
1S/4W 24E 1	OAK	360 42 ST	LADIES RELIEF SOCIETY	0	IRR	?	12	65	9	0	0	0	?	0	2		L
1S/4W 24E 3	OAK	42ND & WEBSTER STS.	EBMUD	0	CAT	5/75	0	50	0	0	0	0	D	0	0		L
1S/4W 24E 4	OAK	462 43 ST	ROBERT WESTWOOD	0	DOM	9/77	4	0	0	0	0	0	?	0	0		L



.5 mile radius from 51st St. and Telegraph Ave.
01/26/1994