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To: **Mr. Amir Gholami**
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From: **Peter McIntyre**

Pages: **8**, including this cover page

Subject:

Mr. Gholami:

Following is the information we discussed.

1. A copy of the site description / background
2. tables of analytical data
3. site plans with: former boring locations, sampling collection points, wells, and proposed boring locations.

I look forward to discussing this with you.

SITE DESCRIPTION AND BACKGROUND

The site is located in an industrial area of the City of Oakland, on the northern corner of the intersection of 75th Avenue and Snell Street, just east of San Leandro Street. The property is approximately 10,000 square feet in size and currently developed with two buildings, occupied by Omega.

On September 19, 1996, AEI removed three gasoline underground storage tanks (USTs) from the subject property. The tanks consisted of one 8,000-gallon UST, one 1,000-gallon UST, and one 500-gallon UST. The former locations of the tanks are shown in Figure 2. A total of five soil samples and one groundwater sample collected during the tank removal activities revealed that a release had occurred from the tank system. Total petroleum hydrocarbons as gasoline (TPH-g), benzene, and MTBE were detected up to 4,300 mg/kg, 13 mg/kg, and 25 mg/kg, respectively in soil samples. The excavation was not backfilled. Soil removed from the excavation was stockpiled on the northern portion of the property. In 1999 soil samples collected from the stockpiled soil contained non-detectable to minor concentrations of TPH as gasoline. Mr. Barney Chan of the ACHCSA approved the stockpiled soil for reuse in the excavation.

In October 1997, soil and groundwater samples were collected from six soil borings (BH-1 through BH-6). In June 1999, four groundwater monitoring wells (MW-1 through MW-4) were also installed by AEI.
Under the direction of ACHCSA, additional soil was removed from the excavation in March 2000. The excavation was extended to 29 by 48 feet in size and 8 feet deep at the east end of the excavation and 11.5 at the west end. During the excavation activities, an additional 500 gallon UST was discovered at the eastern end of the excavation. This tank was removed under the direction of Oakland Fire Services Agency (OFSA). A total of six additional soil samples were collected from the sidewalls and bottom of the excavation.

The resulting excavation was then backfilled with pea gravel to bridge the water table, with the remainder of the excavation being filled with the previously aerated soil and later with imported fill. The newly excavated soil was stockpiled on the northern portion of the property. A total of 7,400 gallons of hydrocarbon impacted groundwater was pumped from the excavation, treated on-site, and discharged under EBMUD permit to the sanitary sewer system.

Sample collection points, borehole locations, and monitoring wells are shown on Figure 3. Historical soil and groundwater sample analytical data are presented in Table 1 and Table 2, respectively. Historical water table elevation data are presented in Table 3.

ENVIRONMENTAL SETTING

The site is located at approximately 5 feet above mean sea level (msl). The site is flat and the regional topography slopes very gently to southwest (Figure 1). According to logs of soil borings advanced by AEI, the near surface sediments beneath the site consist generally of clayey soils. In the continuously logged borings, silty and gravelly sands were noted in the 3 to 6 feet

below ground surface (bgs) range, below which stiff clays exist. Silty, sandy, and gravelly clays were noted below approximately 8 feet bgs to boring termination.

During the 11 episodes of monitoring, the water table has existed at approximately five feet bgs; however, during the February 2000 episode, the water table rose to approximately 2.5 feet bgs. Generally, water levels measurements reveal a flow direction ranging from southwest to east-southeast, with the predominant flow direction being to the south. The hydraulic gradient has generally been 10^{-3} ft/ft.

Table 1
Soil Sample Analytical Data

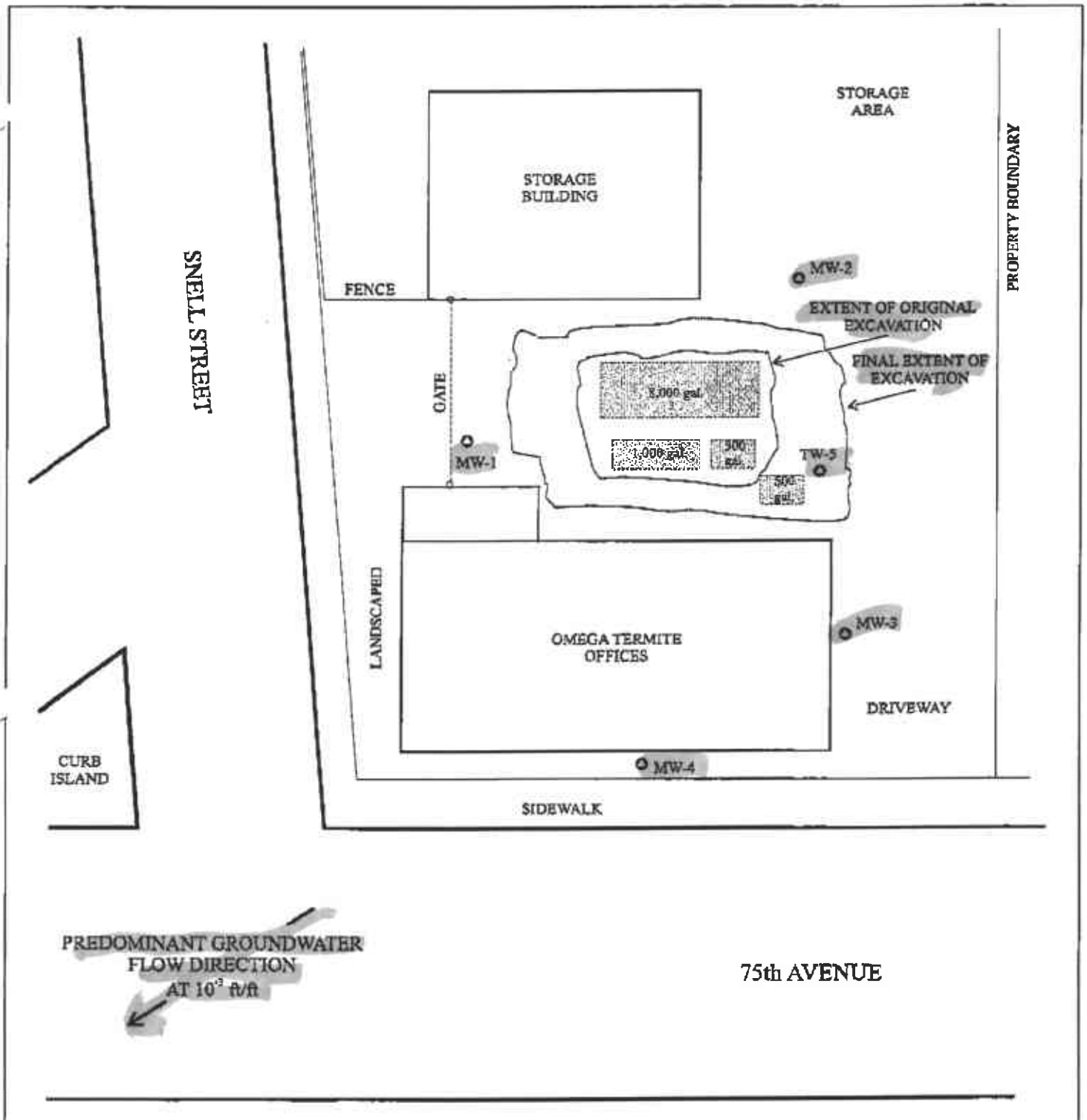
[redacted] ID	[redacted] Date	TPH-g mg/kg	TPH-d mg/kg	TOG mg/kg	MTBE mg/kg	Benzene mg/kg	Toluene mg/kg	E'benzene mg/kg	Xylenes mg/kg	Lead mg/kg EPA 6010
8KEW (10')	9/15/96	64	-	-	0.16	1.8	1.2	1.4	2.9	11
8KWW (10')	9/15/96	2600	-	-	25	2.8	15	37	120	24
8KNWW (10')	9/15/96	360	-	-	2.5	2.5	0.83	8.5	2.4	110
1KE (9')	9/15/96	41	-	-	<0.1	0.077	0.99	0.86	4.7	8.5
K (9')	9/15/96	4300	-	-	<10	13	83	71	310	9.8
BH-1 10'	1/31/97	4.1	-	-	<5.0	0.078	0.009	0.11	0.17	5.6
BH-2 10'	1/31/97	23	-	-	0.13	0.46	0.05	0.089	0.061	7.7
BH-3 10'	1/31/97	280	-	-	1.8	3.2	3	3.8	12	6.6
BH-4 10'	1/31/97	4.6	-	-	<5.0	0.03	0.025	0.36	0.46	7.8
SB-5 10'	1/31/97	800	-	-	5	4.3	23	15	65	6.7
BH-6 10'	1/31/97	110	-	-	0.53	3	0.25	0.95	0.53	5.6
MW-1 10'	6/25/99	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005	6.4
MW-1 15'	6/25/99	3.4	-	-	<0.05	0.092	0.022	0.054	0.14	4.8
MW-2 10'	6/25/99	420	-	-	<2	<0.1	2.7	4.8	8.2	6.6
MW-2 15'	6/25/99	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005	6.9
MW-3 10'	6/25/99	14	-	-	<0.05	0.3	0.091	0.29	0.28	6.6
MW-3 15'	6/25/99	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005	8.5
MW-4 10'	6/25/99	3.6	-	-	<0.05	0.71	<0.005	0.19	<0.005	6.6
MW-4 15'	6/25/99	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005	8.5
AEI SW South 8'	3/20/00	290	-	-	<0.5	0.84	2	6.3	1.3	9.1
AEI SW North 8'	3/20/00	1.8	-	-	<0.05	<0.005	<0.005	0.007	0.008	7.3
AEI SW East 8'	3/20/00	1800	-	-	<5.0	12	65	32	160	7.4
AEI EB 7'	3/20/00	560	220	100	<1.0	0.59	4.9	7.3	40	7.5
AEI EB West 11.5'	3/20/00	280	-	-	<0.21	2.7	6.6	5.2	23	5.9
RL		1	1		0.05	0.005	0.005	0.005	0.005	3.0

TPH-g = total petroleum hydrocarbons as gasoline
TPH-d = total petroleum hydrocarbons as diesel
MTBE = methyl tert-butyl ether
E'benzene = ethylbenzene
- = Sample not analyzed by this method

Table 2
Groundwater Sample Analytical Data

Sample ID	Date	TPH-g µg/l	TPH-d µg/l	TOG µg/l	MTBE µg/l	Benzene µg/l	Toluene µg/l	E'benzene µg/l	Xylenes µg/l	Lead µg/l
GW	9/13/96	4800	-	-	<130	[illegible]	3500	21000	6400	<5
BH-1	1/31/97	13000	-	-	<50	770	67	530	1800	-
BH-4	1/31/97	25000	-	-	<50	1300	110	1200	2400	-
BH-6	1/31/97	27000	-	-	230	5000	410	1100	2400	-
MW-1	07/30/99	2,700	-	-	<10	920	5.5	18	130	-
	11/09/99	1,800	-	-	<20	430	1.5	26	60	-
	02/23/00	3,800	-	-	<10	1,500	56	78	35	-
	05/26/00	7,100	-	-	<10	2,800	70	220	81	<5
	10/10/00	980	-	-	<5.0	260	2.9	10	11	-
	02/07/01	570	-	-	<5.0	150	1.8	4.9	9.3	-
	05/25/01	18,000	-	-	ND<100	3,800	350	550	620	-
	09/19/01	340	-	-	<5.0	190	4.0	4.6	5.3	-
	02/06/02	-	-	-	-	-	-	-	-	-
	05/17/02	13,000	920		<50/<5.0*	4,500	29	50	58	-
	08/20/02	2,100	740	<5000	ND<15	<20	4.5	6.4	9.6	-
MW-2	07/30/99	1,200	-	-	<10	29	2.5	51	100	-
	11/09/99	1,300	-	-	<30	26	1.1	55	32	-
	02/23/00	5,000	-	-	<10	200	18	390	440	-
	05/26/00	2,700	-	-	<10	69	13	83	68	<5
	10/10/00	810	-	-	<10	17	4.7	42	46	-
	02/07/01	2,600	-	-	<10	70	15	80	100	-
	05/25/01	2,400	-	-	<5.0	75	16	85	100	-
	09/19/01	1,200	-	-	<5.0	10	9	46	55	-
	02/06/02	1,800	-	-	ND<50	14	11	58	59	-
	05/17/02	2,000	860	-	ND<20/8.1*	19	1	1	88	-
	08/20/02	-	-	-	-	-	-	-	-	-
MW-3	07/30/99	2,700	-	-	<10	220	15	130	230	-
	11/09/99	3,100	-	-	15	440	9	150	96	-
	02/23/00	1,800	-	-	<15	180	11	82	79	-
	05/26/00	1,600	-	-	6.4	140	10	69	63	<5
	10/10/00	1,100	-	-	ND<10	110	4.4	63	51	-
	02/07/01	1,100	-	-	ND<10	130	5.1	68	65	-
	05/25/01	1,200	-	-	ND<6.0	120	5.4	69	64	-
	09/19/01	800	-	-	<5.0	78	3.5	52	37	-
	02/06/02	1,100	-	-	ND<10	130	4.7	77	71	-
	05/17/02	2,800	810	-	<50/2.0*	410	23	160	210	-
	08/20/02	780	270	<5000	ND<10	110	2.8	63	41	-
MW-4	07/30/99	340	-	-	<10	57	2.2	8.3	6.8	-
	11/09/99	1,000	-	-	<10	220	<0.5	17	7.1	-
	02/23/00	980	-	-	<5.0	260	7	33	27	-
	05/26/00	760	-	-	5.7	170	4.8	22	18	<5
	10/10/00	520	-	-	ND<10	130	2.3	22	10	-
	02/07/01	680	-	-	ND<8.0	180	3.7	29	21	-
	05/25/01	1,700	-	-	ND<10	510	9.6	44	46	-
	09/19/01	680	-	-	ND<10	200	2.6	33	12	-
	02/06/02	710	-	-	ND<15	220	2.8	40	21	-
	05/17/02	1,300	190	-	<5.0/3.3*	330	5.6	61	51	-
	08/20/02	580	120	<5000	<5.0	160	1.7	34	13	-
TW-5	10/10/00	5,800	2,900	<250	ND<50	650	60	190	230	-
	02/07/01	720	650	450	<5.0	6.0	0.5	3.2	0.5	-
	05/25/01	370	420	<250	<5.0	13.0	4.1	1.6	1.3	-
	09/19/01	15,000	2,700,000	1,100,000	530	29	2.7	14	240	-
	02/06/02	280	55,000	18,000	<5.0	2.3	0.74	<0.5	0.70	-
	05/17/02	480	41,000	-	<5.0/<5.0*	1.6	1.1	1	<0.5	-
	08/20/02	240	21,000	<5000	<5.0	8.0	1.2	1	0.52	-
RL		50	50	5000	5	0.5	0.5	0.5	0.5	3.0

TPH-g = total petroleum hydrocarbons as gasoline
TPH-d = total petroleum hydrocarbons as diesel
MTBE = methyl tert-butyl ether
E'benzene = ethylbenzene
- = Sample not analyzed by this method
* - presented as MTBE concentration by EPA 8020(1) / EPA 8260B



LEGEND

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EXISTING MONITORING WELL LOCATIONS

FORMER TANK LOCATIONS

SCALE: 1in = 20 ft

0' 10' 20'

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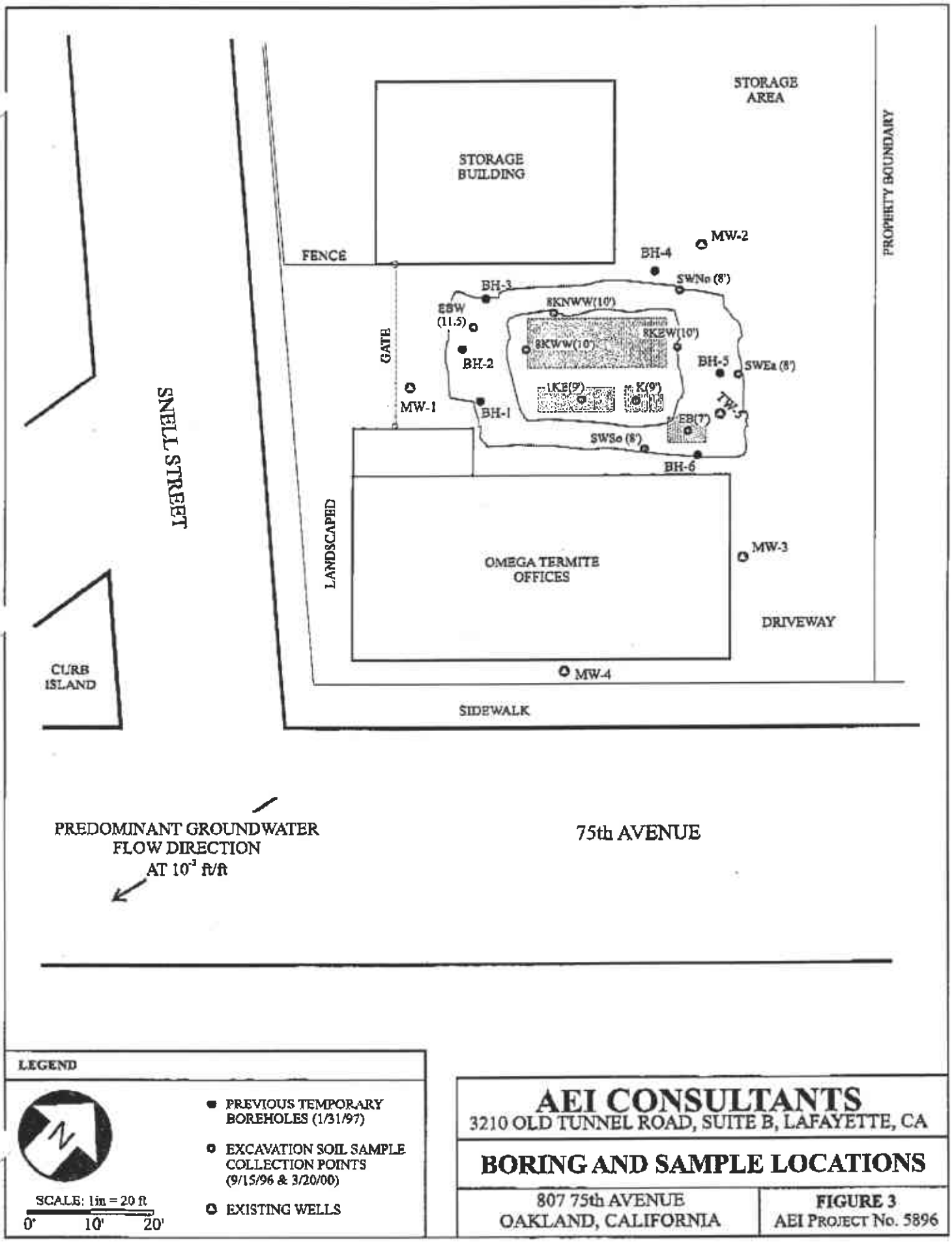
3210 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

SITE PLAN

807 75th AVENUE
OAKLAND, CALIFORNIA

FIGURE 2
AEI PROJECT No. 5896



LEGEND

- PREVIOUS TEMPORARY BOREHOLES (1/31/97)
- EXCAVATION SOIL SAMPLE COLLECTION POINTS (9/15/96 & 3/20/00)
- EXISTING WELLS

SCALE: 1in = 20 ft

0' 10' 20'

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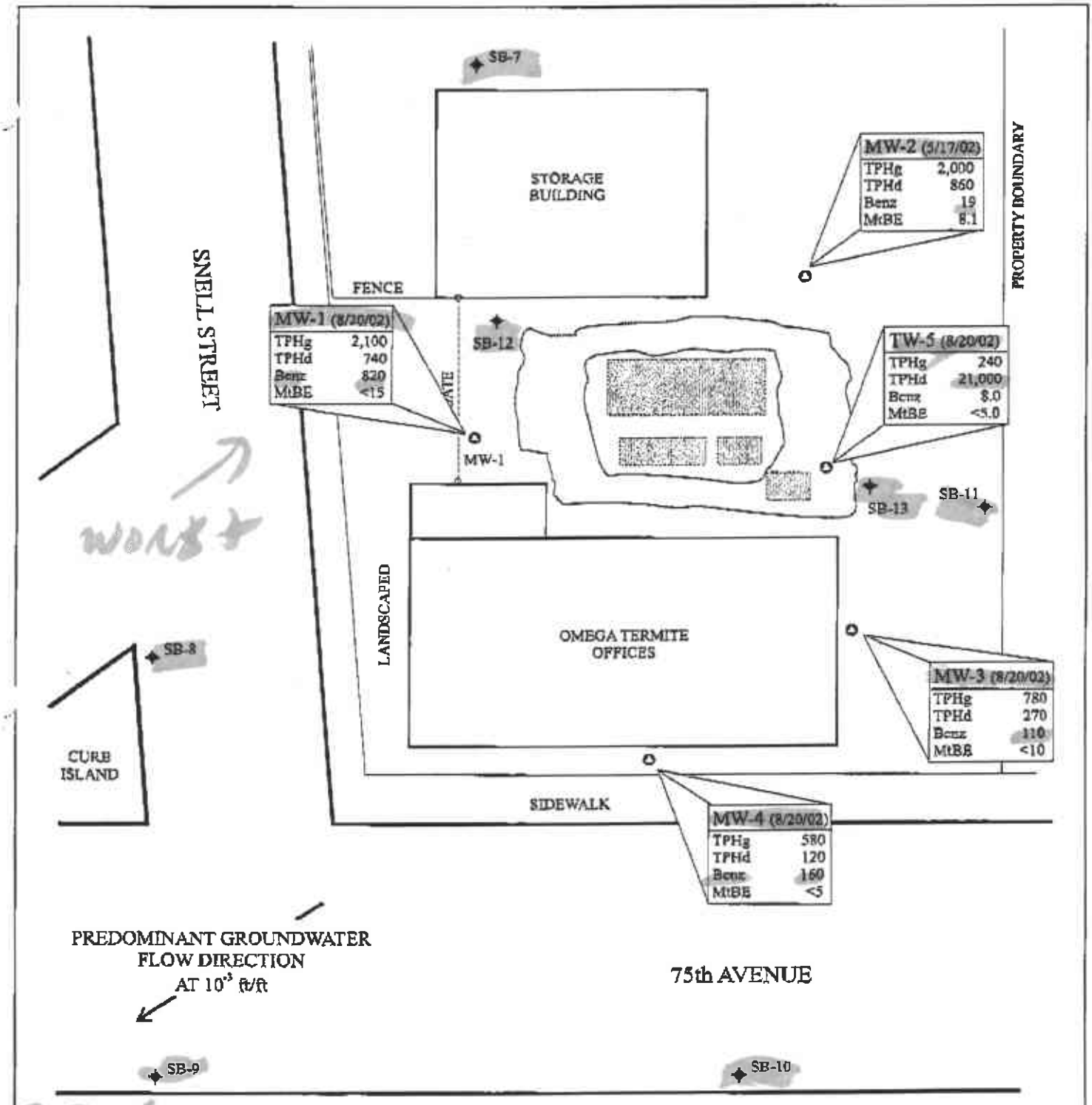
BORING AND SAMPLE LOCATIONS

807 75th AVENUE
OAKLAND, CALIFORNIA

FIGURE 3
AEI PROJECT No. 5896



LEGEND

EXISTING MONITORING WELL LOCATIONS (Hydrocarbon concentrations as of 8/20/02)

PROPOSED TEMPORARY BORING LOCATIONS

SCALE: 1in = 20 ft

0' 10' 20'

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3210 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

PROPOSED BORING LOCATIONS

807 75th AVENUE
OAKLAND, CALIFORNIA

FIGURE 4
AEI PROJECT No. 5896