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May 19, 1997
NWE Project No. 050-000428

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94302-6577

Subject: **Preliminary Investigation Results and Proposal for Additional Assessment**
444 Hegenberger Road, Oakland, California

Dear Mr. Chan:

Northwest Envirocon, Incorporated (NWE) has been authorized to perform a subsurface investigation at the subject site. The first phase of this investigation, consisting of collection of soil and groundwater samples, was performed on April 4, 1997, in accordance with an approved work plan dated July 23, 1996. This letter contains a brief summary of the results of that investigation and a proposal for additional assessment at the subject Property. This letter should be considered an addendum to NWE's July 23, 1996 Work Plan for the subject site.

Summary of Results

One soil boring (SB-1) was advanced through the former location of the oil/water separator and three soil borings (SB-2, SB-3, and SB-4) were advanced at locations surrounding the former waste oil tank at the subject Property (Figure 1). Soil and groundwater samples were collected using hollow-stem auger drilling techniques and Hydropunch® sampling methodologies. After collection of soil and groundwater samples, each soil boring was abandoned by filling completely with a mixture of cement and bentonite.

Soil encountered in each soil boring consisted of clay and silty clay. Groundwater was encountered in each boring at approximately 20 feet below grade. Soil samples were collected as the borings were advanced at 5 foot intervals. Collected soil samples were analyzed for methyl-tertiary-butyl ether (MTBE), benzene, toluene, ethylbenzene, total xylenes (BTEX), total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), and oil and grease. Soil sample analytical results are compiled in Table 1.

(deeper than expected)

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Table 1
Soil Sample Analytical Results
444 Hegenberger Road, Oakland, California
April 4, 1997
(all concentrations in milligrams per Kilogram - mg/Kg)

Soil Boring Number	Soil Sample Number	Depth (feet below grade)	MTBE[1]	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg[2]	TPHd[3]	Oil and Grease
SB-1	SB-1A	5	<0.050	**0.037**	<0.0050	<0.0050	<0.0050	<1.0	<1.0	<50
	SB-1B	10	<0.50	**1.1**	**0.54**	**5.1**	**2.4**	**260**	**120**	**93**
SB-2	SB-2A	5	<0.50	**0.33**	**0.065**	**0.13**	**0.18**	**41**	**19**	**220**
	SB-2B	10	<0.50	**0.34**	<0.050	**0.87**	**0.24**	**16**	**2.1**	<50
SB-3	SB-3A	5	<0.50	**0.18**	<0.050	**0.31**	**0.062**	**24**	**7.8**	<50
	SB-3B	10	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<1.0	<50
SB-4	SB-4A	5	<0 050	**0.019**	<0.0050	**0.052**	**0.015**	**1.7**	<5.0	<50
	SB-4B	10	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<1.0	<50

MTBE[1] = Methyl-Tertiary-Butyl Ether.
TPHg[2] = Total Petroleum Hydrocarbons as gasoline.
TPHd[3] = Total Petroleum Hydrocarbons as diesel.

The soil sample analytical results indicate the presence of TPHg and TPHd at concentrations exceeding 100 mg/Kg in the soil sample collected from soil boring SB-1 at 10 feet below grade. TPHg was also detected in soil samples collected from soil borings SB-2, SB-3, and SB-4 at concentrations less than 50 mg/Kg. TPHd was also detected in soil samples collected from soil borings SB-2 and SB-3. BTEX constituents were detected in several soil samples but at concentrations less than 10 mg/Kg. Oil and grease was reported at a concentration of 220 mg/Kg in the soil sample collected from soil boring SB-2 at a depth of 5 feet below grade.

The volume of groundwater samples collected from some borings was limited due to slow rates of recharge and filling of the Hydropunch® sampling assembly. This resulted in higher detection limits for some compounds (see Table 2). Collected groundwater samples were analyzed for MTBE, BTEX, TPHg, TPHd, and oil and grease. The groundwater sample collected from soil boring SB-1 was also analyzed for volatile organic compounds (VOCs) by U.S. EPA Method 625 and for total petroleum hydrocarbons as motor oil (TPHm). Groundwater sample analytical results are compiled in Table 2.

Table 2
Groundwater Sample Analytical Results
444 Hegenberger Road, Oakland, California
April 4, 1997
(all concentrations in micrograms per Liter - µg/L)

This sample should have been analyzed for O + G.

Ground-water Sample Number	MTBE[1]	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg[2]	TPHd[3]	TPHm[4]	Oil and Grease	Naptha-lene	2-Methyl-napth-alene
W-1	<13	35	10	140	37	3,400	620	<200	NA[5] *	47	28
W-2	<130	1,600	160	2,500	2,200	19,000	<100	NA	2,800	NA	NA
W-3	<13	54	71	170	220	2,000	<50	NA	<2,000	NA	NA
W-4	<25	230	17	220	110	4,400	<100	NA	<3,700	NA	NA

MTBE[1] = Methyl-Tertiary-Butyl Ether.
TPHg[2] = Total Petroleum Hydrocarbons as gasoline.
TPHd[3] = Total Petroleum Hydrocarbons as diesel.
TPHm[4] = Total Petroleum Hydrocarbons as motor oil.
NA[5] = Sample Not Analyzed for this Constituent.

Groundwater sample analytical results indicate BTEX and TPHg were detected in each groundwater sample collected. Benzene concentrations range from 35 to 1,600 micrograms per Liter (µg/L). Oil and grease at a concentration of 2,800 µg/L was detected in the groundwater sample collected from SB-2. TPHd at a concentration of 620 µg/L was reported in the groundwater sample collected from soil boring SB-1. The VOCs napthalene and 2-methyl-napthalene were reported at concentrations of 47 and 28 µg/L, respectively, in the groundwater sample collected from soil boring SB-1.

Recommendations

Based on the presence of benzene in groundwater at concentrations exceeding 0.5 µg/L, NWE recommends that additional assessment be conducted at the subject Property prior to preparation of a more detailed results report. NWE proposes that additional soil borings be advanced at the locations indicated on Figure 2. The soil boring locations are intended to be located downgradient of the former locations of the oil/water separator and the waste oil tank (information from Alameda County indicates that the local direction of groundwater flow is toward the west). Soil borings will be advanced to groundwater and soil samples will be collected at vertical intervals of 5 feet. Groundwater samples will be collected with a Hydropunch® sampling assembly. After collection of soil and groundwater samples, each soil boring will be abandoned by filling completely with a mixture of cement and bentonite.

Recovered soil samples will be analyzed for MTBE, BTEX, TPHg, TPHd, and oil and grease. Groundwater samples will be analyzed for MTBE, BTEX, TPHg, TPHd, and oil and grease. Groundwater samples collected from soil borings in

then can eliminate O+G + grease

the vicinity of the former oil/water separator (soil borings SB-5 through SB-9) will also be analyzed for VOCs and TPHm.

After approval of this work plan addendum, NWE will submit permit applications for the additional soil boring and sampling within three weeks. Depending on contractor availability, field work will be conducted within 10 days of permit approval. Normal laboratory turn-around time is 10 working days. NWE will prepare a results report within 10 working days of receipt of laboratory results.

Please contact me immediately if you have any questions.

Sincerely,

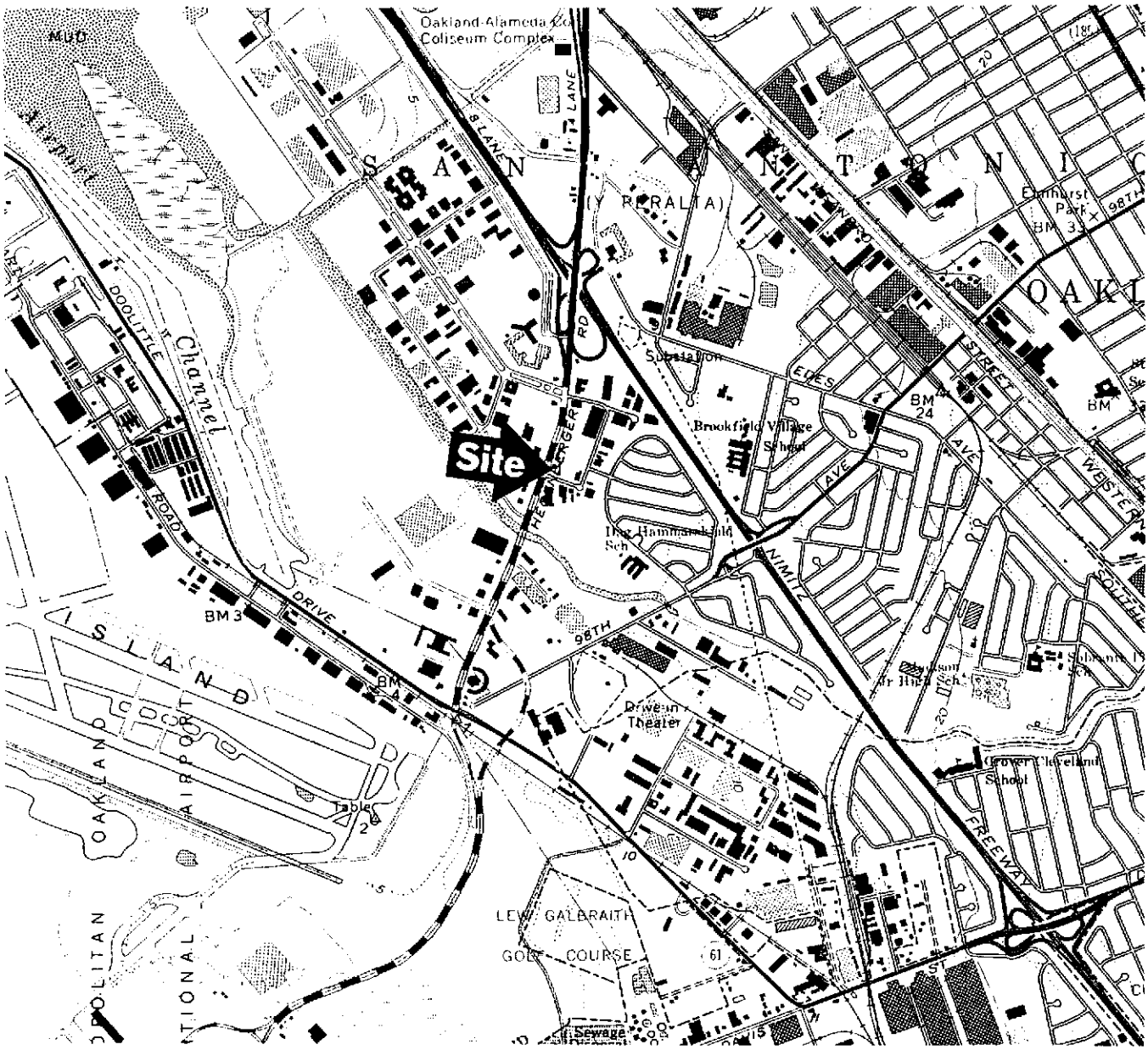
NORTHWEST ENVIROCON, INC.

Dale A. van Dam

Dale A. van Dam, R.G.
Hydrogeologist

DAvD:davd

cc: Ms. Sandra Hutson, The Voit Companies



NORTH

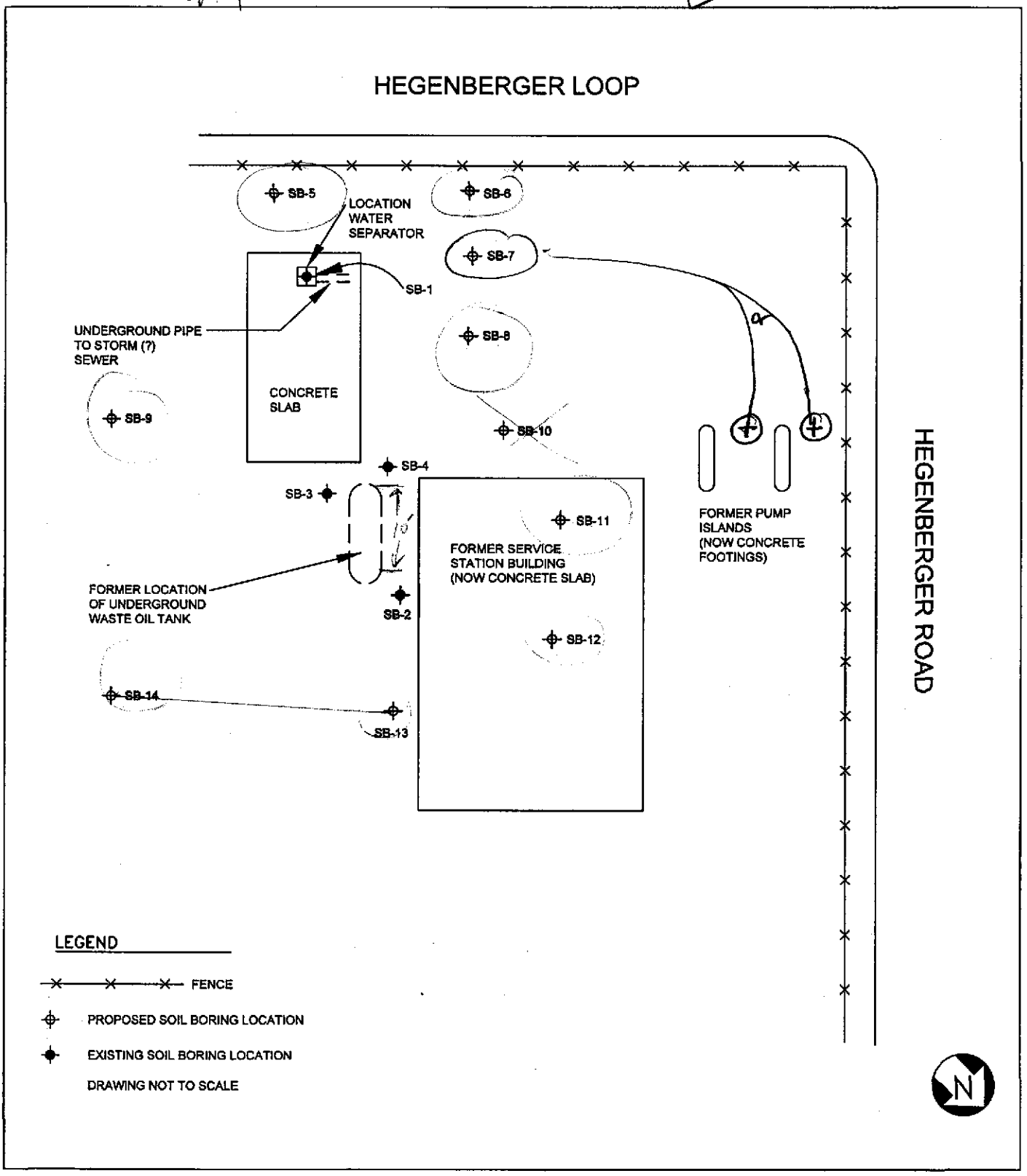
Northwest Envirocon, Inc.
Environmental Consulting

USGS 7.5 Minute Topographic Map
Oakland Quadrangle
444 Hegenberger Road
Oakland, California

JOB NUMBER:	DATE:	PLATE:
05-000428	July 1996	1

8/14

Assumed gradient



Northwest Envirocon, Inc.
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SAMPLE LOCATION MAP
Former Service Station
444 Hegenberger Road
Oakland, California

PLATE
2

JOB NUMBER
05-000428

DATE
MAY 1997