BASELINE

ENVIRONMENTAL CONSULTING

22 October 1986
S-593B

KAISER ENGINEERS
AC Transit Project Office
508 16th Street
Oakland, CA 94512

Attn: Mr. Steve Whitehead

Subject: Soil Sampling Activities at AC Transit Facility, Emeryville, 10 October 1986

Dear Steve:

At your request, BASELINE conducted soil samplings at the AC Facility in Emeryville on 10 October 1986. The field work was conducted in response to analytical results obtained from subsurface soil sampling on 17 and 18 September 1986. The results of that sampling have been reported to KAISER ENGINEERS in a letter from BASELINE dated 1 October 1986. The analytical results from the 17 and 18 September sampling event indicated that the underground tanks located on the site may have leaked in the past, since soil samples collected contained in excess of 1,000 mg/kg of total fuel hydrocarbons in some places. The purpose of the samplings on 10 October was to further define the extent of soil contamination, horizontally and vertically.

A total of seven soil samples were collected for analysis of hydrocarbon concentration. The sample locations are shown in Figure 1 and the analytical results are shown in Table 1, below (the laboratory reports are attached to this letter).

The soil samples were collectd with a hollow-stem auger equipped with a California Modified sampler. The sampling equipment was decontaminated between each sampling event with TSP and deionized water. The augers on the drill rig were steam-cleaned. The samples were collected in 6-inch brass tubes, sealed with aluminium foil, plastic caps, taped, placed in plastic zip-lock bags, iced, and brought to the laboratory for analysis.

D2 Attachment #2

TABLE 1

ANALYTICAL RESULTS
SOIL SAMPLING AT AC TRANSIT EMERYVILLE FACILITY

10 OCTOBER 1986

Sample ID	Depth (feet)	Material	Total Hydrocarbons (mg/kg)
BDT-1	10	sandy clay to clayey sand moist, odor	410
BDT-1	12	clayey sand, mottled, wet, odor	NA*
BDT-2	10	sandy clayey gravel, moist odor	170
BDT-3	10	clayey sand, mottled, moist, slight odor	14
BDT-3	12	clayey sand, wet, odor	NA*
BDT-4	10	clayey sand, moist, odor	31
BDT-4	12	clayey sand, wet, odor	NA*
BDT-5	9.5	clayey sand, moist, odor	390
BDT-6	10.5	sand, moist, strong odor	230
BDT-7	10	sand, moist to wet, odor	260

Notes: * These samples were wet and below the groundwater, and not analyzed in the laboratory.

Dr Attachment #2

On the basis of field observations and analytical results on 17 and 18 September and 10 October, it appears that fuel contamination is restricted to the area immediately adjacent to the location of the underground fuel tanks. The hydrocarbon concentrations identified further downgradient from the tanks could be a result of spillage in the fueling area or associated with the general bus maintenance operations on the site.

It is recommended that the material containing in excess of 1,000 mg/kg of hydrocarbons (as identified during the 17 and 18 September 1986 field work, and reported in a previous letter dated 1 October 1986) be removed from the site and disposed of in accordance with County and State regulatory requirements. In addition, abandonment of the underground tanks should be performed in accordance with the requirements of Alameda County. Following tank and soil removal, soil samples should be collected to verify that contaminated materials have been removed. In addition, the Regional Water Quality Control Board require that in areas where soil contamination in excess of 100 mg/kg has occurred, a groundwater monitoring well should be installed to identify potential groundwater contamination. Well installation and sampling must be performed in accordance with the Guideline of the Regional Board.

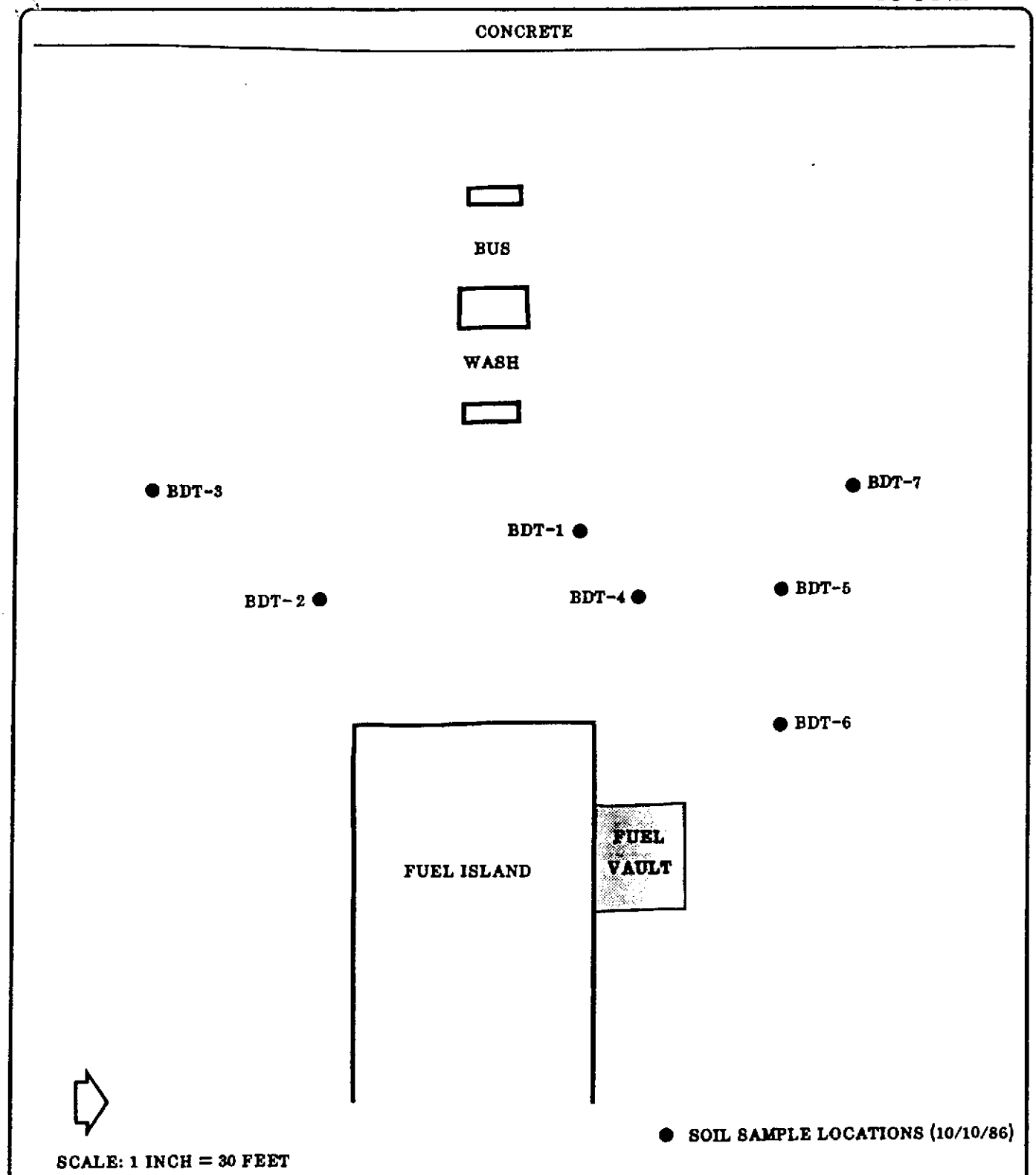
Should you have any questions regarding our field work or the analytical results or need further assistance, please do not hesitate to contact us at your convenience.

Sincerely,

Yane Nordhav
Principal
Reg. Geologist No. 4009

YN/ae
Attachments

D2 Attachments #2



AC TRANSIT FACILITY
Emeryville, California

D2 Attachment #2

BASELINE

BROWN AND CALDWELL

ANALYTICAL LABORATORIES

LOG NO: E86-10-239

Received: 13 OCT 86
Reported: 16 OCT 86

Yane Nordhav
Baseline
315 Washington St.
Oakland, CA 94607

Project: S-593B

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
10-239-1	BDT, 1-10'	10 OCT 86
10-239-2	BDT, 6-10.5'	10 OCT 86
10-239-3	BDT, 7-10'	10 OCT 86
10-239-4	BDT, 2-10'	10 OCT 86
10-239-5	BDT, 3-10'	10 OCT 86

PARAMETER	10-239-1	10-239-2	10-239-3	10-239-4	10-239-5
Total Fuel Hydrocarbons, mg/kg	410	230	260	170	14

Dr Attachment #2

BROWN AND CALDWELL
ANALYTICAL LABORATORIES

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Yane Nordhav
Baseline
315 Washington St.
Oakland, CA 94607

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REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
10-239-6	BDT, 4-10'	10 OCT 86
10-239-7	BDT, 5-9.5'	10 OCT 86
10-239-8	BDT, 1-12'	10 OCT 86
10-239-9	BDT, 3-12'	10 OCT 86
10-239-10	BDT, 4-12'	10 OCT 86

PARAMETER	10-239-6	10-239-7	10-239-8	10-239-9	10-239-10
Sample Held, Not Analyzed	---	---	HELD	HELD	HELD
Total Fuel Hydrocarbons, mg/kg	31	390	---	---	---

D. A. McLean, Laboratory Director

D2 Attachment #2