SEACOR
Science & Engineering Analysis Corporation

April 13, 1993

Ms. Jennifer Eberle
Alameda County Department of Environmental Health
Hazardous Materials Specialist
80 Swan Way, Room 200
Oakland, California

4265

Re: Monitoring Well Installation
San Francisco French Bread
3924 Market Street
Oakland, California

Dear Ms. Eberle:

This letter presents a brief description of the site background, file review, and regional hydrologic conditions at the site referenced above. As per our discussion, Science & Engineering Analysis Corporation (SEACOR) recommends the installation of one groundwater monitoring well.

BACKGROUND

The San Francisco French Bread (SFFB) facility is located in the northwestern portion of the City of Oakland in Alameda County, California (Figure 1). The facility has not been in operation since 1987. The facility contained one 500-gallon underground fuel storage tank and fuel dispenser located in the western boundary of the property which was removed on March 29, 1991 (Figure 2). During the excavation, the tank was noted as being in "good shape" with no holes observed. The product line extending from the tank to the fuel dispenser was also excavated.

Two soil samples were collected from the tank pit excavation and one soil sample was collected from the product line. Samples collected were analyzed for total petroleum hydrocarbons calculated as gasoline (TPH-gasoline), total petroleum hydrocarbons calculated as diesel (TPH-diesel), and benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds). Detectable concentrations of petroleum hydrocarbons were encountered in all soil samples collected reaching a maximum of 26 parts per million (ppm) TPH-gasoline, 4.7 ppm TPH-diesel, and 0.30 ppm benzene.

The tank pit was over-excavated on June 21, 1991. A total of five soil samples were collected during the over-excavation and analyzed for the same analytical parameters. All soil samples collected contained TPH-gasoline and BTEX compounds. TPH-diesel was not detected in any samples analyzed. Maximum concentrations encountered in soil samples collected were 210 ppm TPH-gasoline, and 0.4 ppm benzene.

FILE REVIEW

SEACOR conducted a file review of project sites in proximity to the SFFB facility to document local groundwater flow directions. A leaking underground fuel tank (LUFT) and local oversight program

(LOP) file review was conducted using files stored at both the Regional Water Quality Control Board's Oakland office and the Alameda County Department of Environmental Health. Four regulated sites within a half-mile radius of the SFFB facility were reviewed for historical groundwater flow directions. Two sites located upgradient from the SFFB facility, Arco Service Station 4931 at 731 West MacArthur Boulevard and Shell Service Station 4903 at 500 Fortieth Street, both showed a westerly to west-southwesterly groundwater flow direction. The California Linen Rental Company located downgradient of the SFFB facility at 989 Forty First Street showed a north-northwesterly groundwater flow direction. Shell Service Station 5306 located at 3420 San Pablo Avenue also showed a westerly flow direction. In summary, all of these sites showed a predominant westerly direction of groundwater flow. A westerly groundwater flow direction is expected in this area due to the regional hydrology. The SFFB facility is located in the relatively flat lying alluvial plain between the East Bay Hills and the San Francisco Bay. Geomorphic and topographical features control groundwater flow and influence regional groundwater flow to be in a predominately westerly direction.

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CONCLUSIONS

The file review conducted of sites within a half-mile radius of the SFFB facility and the topographic and geomorphic features of the region of Oakland indicates a westerly groundwater flow direction is most likely for this site. Based on these conditions, SEACOR recommends that one groundwater monitoring well be installed within ten feet of the former underground storage tank in a westerly direction as indicated on Figure 2. A workplan for installation of this well was submitted by SEACOR and is dated March 4, 1993. If petroleum hydrocarbons are detected in groundwater sampled by this well, then SFFB will proceed with the installation of additional monitoring wells.

Please call me with any questions or comments you may have.

Sincerely,

Science & Engineering Analysis Corporation

Paul D. Horton

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PAUL D. HORTON
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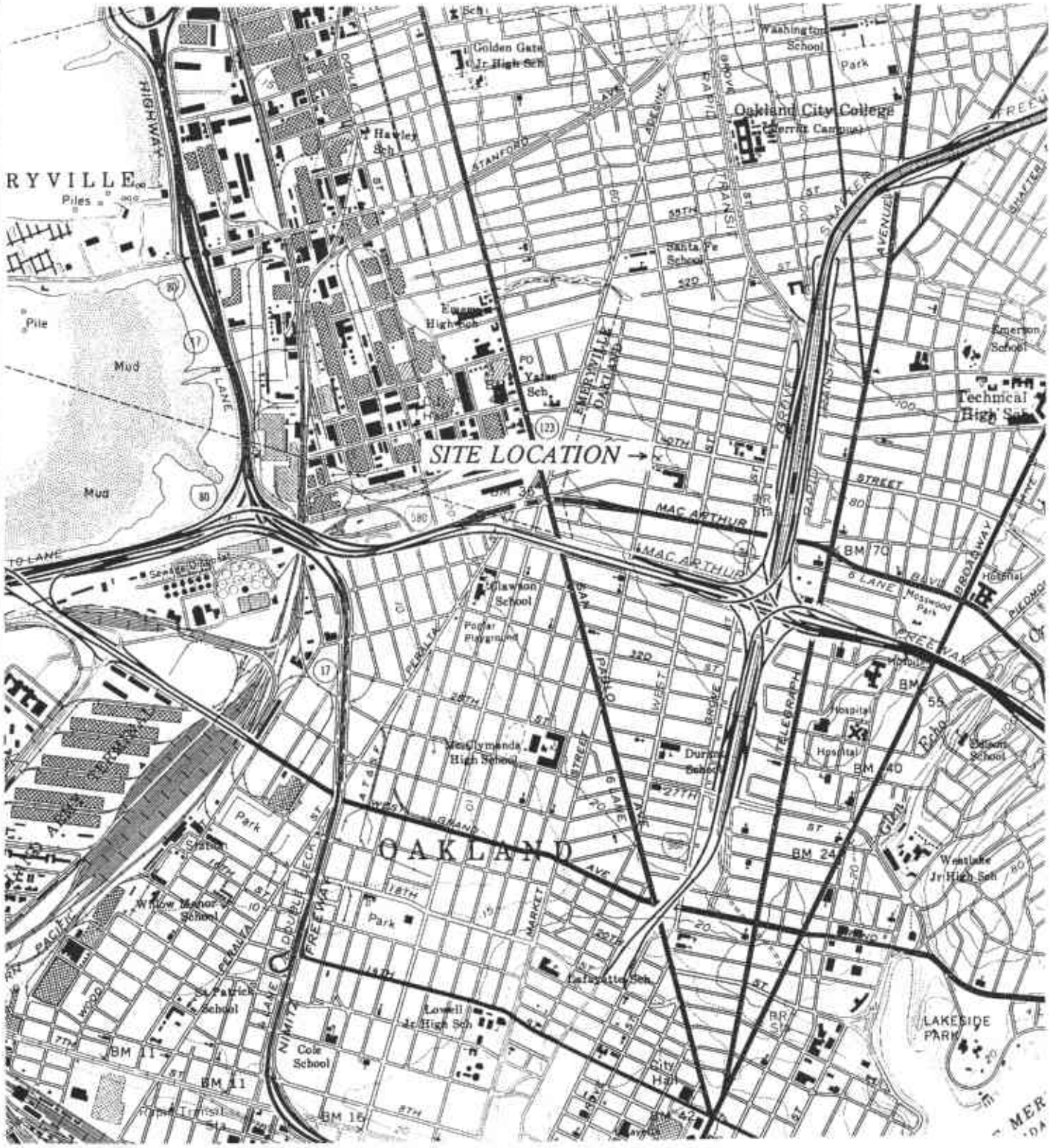
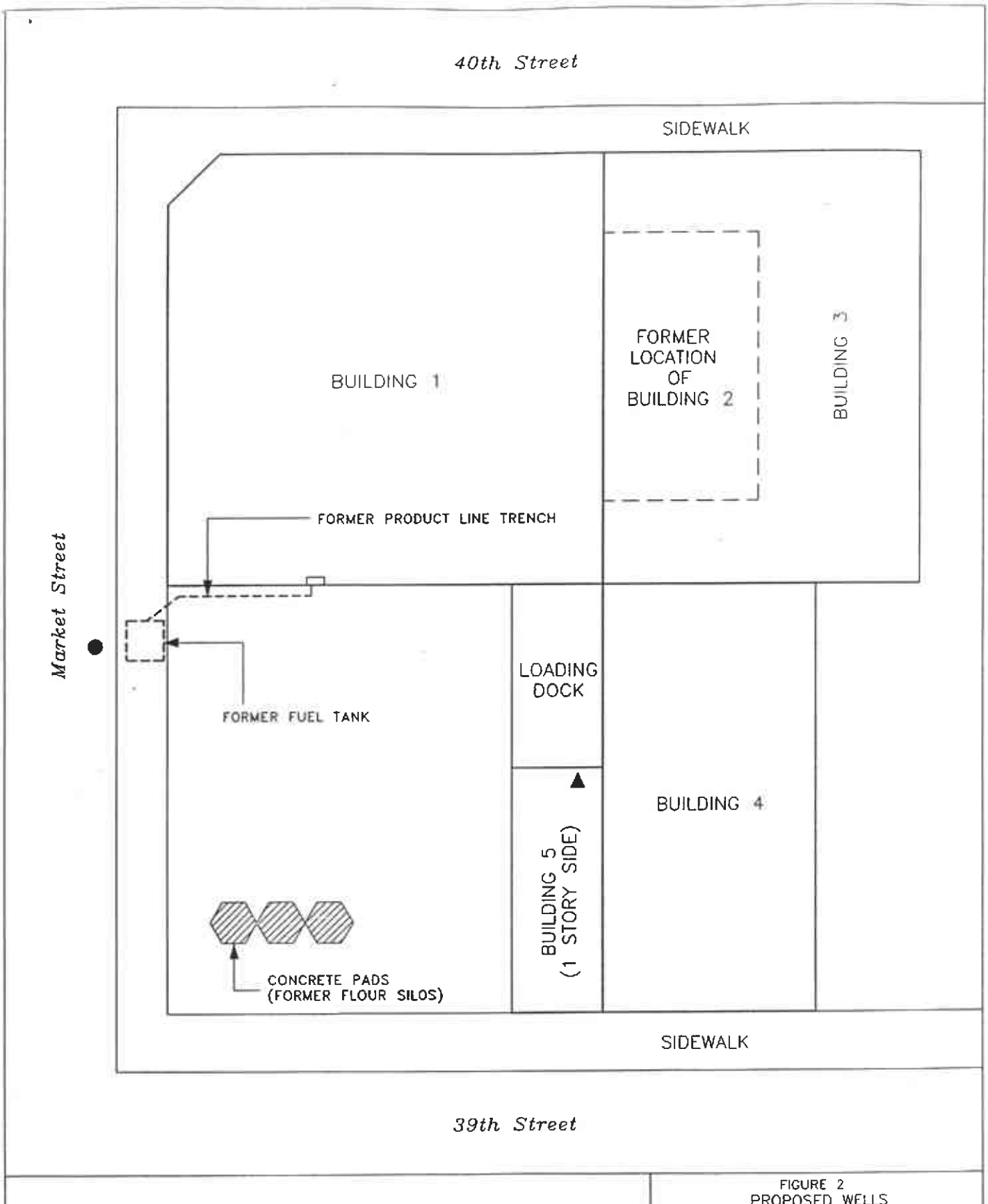
Paul D. Horton, R.G. 5435
Principal Hydrogeologist

cc: Peter Sher



DRAFTED BY:	CHECKED BY:			
TS	PDH	PROJECT NO. 70007-005-01	FIGURE 1	*SEACOR* 1390 Willow Pass Road Suite 360 Concord, CA 94520
DWG. DATE: 02/22/93	REV. DATE: 02/22/93	San Francisco French Bread Co. 3924 Market Street Oakland, California	Site Location Map	
FILE NAME: SFFBOAKL.F01				



LEGEND:

- ● PROPOSED MONITORING WELL
- ▲ DOMESTIC WELL

0' 15' 30'

FIGURE 2
PROPOSED WELLS
3924 MARKET ST., OAKLAND, CA

Client: San Francisco French Bread Co.

Project: 70007-005-01

Date: 2/22/93

SEACOR
1360 Willow Pass Rd #360 Concord, CA