



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, Ca. 94105-3901

January 8, 1992

Eddie Sarmiento
Naval Station Treasure Island, Bldg. 1 (Code 84)
San Francisco, CA 94130

Dear Mr. Sarmiento:

The U.S. Environmental Protection Agency has the attached comments to offer regarding the Work Plan Volume 2G/Sampling Plan for the Group VI Sites. Please call me at (415) 744-2385 if you have any questions regarding these comments.

Sincerely,

A handwritten signature in cursive script that reads "Roberta Blank".

Roberta Blank
Remedial Project Manager

cc: Louise T. Lew, Code 1811
Bonnie Arthur, DTSC
Barbara Smith, RWQCB

**TECHNICAL REVIEW COMMENTS ON
WORK PLAN VOLUME 2G: SAMPLING PLAN--GROUP VI SITES
NAVAL STATION, TREASURE ISLAND, HUNTERS POINT ANNEX**

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- 1) **Page 5, Section 1.2, Paragraph 1. The source of "hydraulically deposited" sands referred to in this paragraph is not clear. The term is not defined and hydraulically deposited sands could be the result of the natural actions of tides and currents or human activities such as dredging.**
- 2) **Page 6, Paragraph 1. References to groundwater flow conditions should reflect recently obtained data which provides some understanding of the conditions at the site. Data collected from Operable Units I and II suggest that groundwater flow is not consistently in a radially outward direction. The first sentence of this paragraph should be modified to state that groundwater is assumed or presumed to flow radially outward from inland areas of higher elevation for purposes of initial well placement. On page 9, Section 2.4, the uncertainty as to whether groundwater flows radially outward is taken into consideration by stating that "well locations were selected assuming that groundwater flows radially outward".**
- 3) **Page 15, Section 3.1.3, Paragraph 1. The final bullet "Background soil and groundwater quality" is not addressed elsewhere in this document. The previous sections do not address the need for more information on background soil and groundwater quality data, and the subsequent sections do not explain how this sampling plan would accomplish this objective. None of the monitoring wells, nor the soil borings proposed for IR-20 are described as supplying background data for IR-20. It should be stated that this objective is to be met by other sampling programs.**

This comment applies as well to Page 20, Bullet 4 for background soil and groundwater quality data for IR-22.

- 4) **Page 16, Section 3.2.2.1, Paragraph 2. No basis is given for assuming that acetone "is a probable laboratory contaminant". Is this based on quality control samples, on previous experience, or on lack of acetone in samples from subsequent investigation?**
- 5) **Page 20, Bullet 1. There is no discussion in the preceding text related to "sandblast waste material observed at the site between Buildings 274 and 368". How, when, and where this material was located is not described.**
- 6) **Page 21, Section 4.1.1, Bullet 5. Although twelve soil borings are shown on Plate 2, only eleven are described in the text (IR20B015 appears to have been omitted). However, this is not a complete description of the number of borings. For the purposes of soil sampling, the borings for monitoring wells will serve the same function as borings not completed as wells. This bullet**

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would be more descriptive of the soil sampling program if it stated that 15 borings would be drilled with three completed as monitoring wells.

- 7) Page 21, Section 4.1.1, Bullet 5.. This bullet states that borings "will be drilled at least 2 feet into the Bay mud". This does not take into consideration the possibility that Bay mud may be absent in some areas. If Bay mud is absent, how deep will borings penetrate? As described in Section 5.3, Paragraph 1 on Page 28, borings for monitoring wells "will be drilled to a depth at which Bay mud, undifferentiated deposits or bedrock are encountered". This information should be incorporated into the procedures for soil borings.
- 8) Page 22, Section 4.1.1, Bullet 1. The three monitoring wells proposed are most likely too few and two closely spaced to define groundwater flow conditions. Better definition of groundwater flow direction, as well as extent of contamination in the aquifer, might be achieved if an additional one or two of the planned borings were converted to monitoring wells.
- 9) Page 24, Section 4.2.1, Bullet 3. (See comment 11 above.) This bullet would be more descriptive of the soil sampling program if it stated that 19 borings would be drilled with four completed as monitoring wells.
- 10) Page 27, Section 5.1, Paragraph 1. No previous mention is made of a geophysical survey at IR-22. Background for the survey should be presented in Section 3.2, and locations should be described in Section 4.2.1 and shown on Plate 3.
- 11) Page 28, Section 5.2 and 5.3. Given the past history of possible contamination of soil samples with toluene associated with electrical tape, it should be explicitly stated that, contrary to procedure which may be described in the QAPjP (HLA, 1988b), electricians tape will NOT be used to seal soil sample tubes. [Note typo in reference in Section 5.2 "(HLA, 1998b)" rather than "1988b".]
- 12) Page 29, Section 5.3, Partial Paragraph at Top of Page. It should be noted that groundwater samples taken from borings that are not completed as monitoring wells are for general information only, and are not necessarily representative of groundwater quality at that location. Caution should be used when groundwater samples from borings and from wells are to be combined into a single data set. Concentrations of some parameters may be biased by the presence of sediment in boring water samples. This issue applies to other Operable Units as well.
- 13) Page 30-31, Section 5.6.1, Paragraph 2. It should be noted that since slug tests are going to be performed on wells screened, in part, above the water table,

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very little information will be obtained on the saturated properties of the aquifer during the falling-head portion of the test.

- 14) Table 12. The table contains numerous deviations from the sampling protocol presented in the QAPJP (HLA, 1988b). These differences should be noted as they may have an impact on the data collected (different detection limits, different suite of parameters, etc.). Data collected at adjacent IR sites under the original QAPJP protocol may be used in conjunction with data collected from this sampling program. Prior to such use, it should be confirmed that the different data sets are comparable.

It is our understanding that current HPA RI work is being conducted according to modified Quality Assurance procedures documented in an appendix to the "Draft Removal Action Plan/Closure Plan for Underground Storage Tanks, Contract No N62474-88-D-5086", prepared by PRC Environmental Management, Inc. September 12, 1990.