

5090
Ser 1813EG/L2349
5 Aug 1992

California Environmental Protection Agency
Department of Toxic Substances Control, Region 2
Attn: Mr. Tom Lanphar
700 Heinz Avenue, Suite 200
Berkeley, CA 94710

Subj: REMEDIAL INVESTIGATION/FEASIBILITY STUDY FOR NAVAL STATION
TREASURE ISLAND

Dear Mr. Lanphar:

The Navy is presently conducting the field activities for the remedial investigation at Naval Station Treasure Island. In accordance with your inquiry of July 23, 1992 we have provided herein a discussion of assumptions that were the basis for deleting the geophysical surveys that were originally proposed in the approved project plan dated December 26, 1991.

The approved work plan was to conduct surveys at Sites 5, 11, 15, 20, 22, 24, and 25. Ground penetrating radar (GPR) at Sites 5, 15, 20, 22, and 25; proton precession magnetometer surveys (MAG) at Sites 11, 15, 20, 22, 24, and 25. The negotiated contract eliminated geophysical survey work at Sites 20, 22, 24, and 25.

As mentioned above the final project plans indicate that geophysical surveys would be performed at Sites 5, 11, 15, 20, 22, 24, and 25. The plan states that the surveys should be performed to "assist in locating features such as buried building debris, abandoned underground storage tanks, and buried pipelines." Non-intrusive geophysical techniques were proposed largely because they can provide rapid screening information at a much lower cost than intrusive activities such as excavation. However, the lower cost of geophysical techniques is balanced by the fact that intrusive activities tend to provide more conclusive, direct information than do non-intrusive activities.

Fortunately, such direct information has become available since the field sampling plan was written for three of the sites where an objective of the proposed geophysical surveys was to investigate abandoned underground storage tanks. The affected sites are Sites 20, 22, and 25. Excavation has been performed at each of these sites to support removal of underground storage tanks.

The information derived during excavation and removal is probably sufficient to meet the objectives of the proposed geophysical surveys. Therefore, the performance of geophysical surveys at these sites has become redundant. In a variance from the field sampling plan, geophysical surveys were not performed at the affected sites. Accordingly, the Navy will ensure that the information derived during the underground storage tank removals will be incorporated into the RI/FS program.

102
N/D 24

Geophysical surveys were not performed at Site 24 because the site is potentially large in areal extent. Conducting a geophysical survey would not be cost effective at this time since the actual size of the site is not known. A cathodic protection system was installed along the pipeline between 1980 and 1985 to protect the pipeline from corrosion. This indicates that there is data which shows the location of the pipeline. Navy records will be reviewed to see if the pipeline location can be delineated.

Geophysical surveys were performed at Sites 5, 11, and 15 during late June and early July, 1992. The preliminary results of the survey at each site is discussed briefly below.

Site 5 was surveyed using GPR signals transmitted at 500 MHz along continuous transects with a 5-foot grid spacing. Quality assurance field checks performed adjacent to, and at the site indicate that the GPR instrument provided adequate sensitivity to signals scattered from known subsurface targets. Additionally, sufficient instrument response to 15 and 30-foot air-checks was demonstrated prior to commencement of the survey.

Several anomalous subsurface features were preliminarily identified by the radar scattering patterns observed during the survey. Two areas that potentially indicate past disposal were identified and the locations of upcoming trenching and soil boring activities at the site will be placed accordingly.

A magnetic survey was performed at Site 11 at the nodes of a grid with a 20-foot spacing. Additionally, data were collected at 5-foot nodal offsets to support gradient calculations. Quality assurance checks indicate that no significant changes in the ambient magnetic field occurred during survey.

The primary magnetic anomaly observed at the site appears to be related to a sewer line crossing the area. However, several magnetically anomalous areas have been preliminarily identified. These areas may correspond to disposal of objects having a relatively high magnetic content. The locations of upcoming trenching and soil boring activities at the site will be placed accordingly.

Site 15 was surveyed using GPR signals transmitted at 500 MHz along continuous transects with a 10-foot grid spacing. Quality assurance field checks performed adjacent to and at the site indicate that the GPR instrument provided adequate sensitivity to signals scattered from known subsurface targets. Additionally, sufficient instrument response to 15 and 30-foot air-checks was demonstrated prior to commencement of the survey.

Additionally, a magnetic survey was performed at the nodes of the grid used to define the GPR transects. Quality assurance checks indicate that no significant changes in the ambient magnetic field occurred during the survey.

The only anomalous subsurface features preliminarily identified during the GPR survey at the site correspond to the layout of the storm drainage system. The drainage system is apparent due to surface drains present at various site locations. However, anomalies potentially related to disposal or abandoned fuel pipelines were observed during preliminary magnetic survey data interpretation. Therefore, soil boring locations are to be placed accordingly to investigate the anomalies.

In summary, geophysical surveys were not performed at Sites 20, 22 and 25 because excavation associated with tank removals was conducted. Geophysical surveys at Site 24 was not performed because available information should be sufficient to offset the potential benefits of performing the surveys. Finally, geophysical surveys were completed at Sites 5, 11, and 15. The results will be used to position test pits at Sites 5 and 11. No changes are proposed for Site 15.

Should you need additional clarification on these field activities, please contact Mr. Ernesto M. Galang, Code 1813EG at (415) 244-2560.

Sincerely,

GILBERT A. RIVERA
Head, Installation Restoration Section

Copy to:

Environmental Protection Agency, Region IX (Attn: Julie Anderson)
California Regional Water Quality Control Board (Attn: Barbara Smith)
NAVSTA Treasure Island (Attn: Jim Sullivan)
COMNAVBASE San Francisco (Attn: Randy Friedman)
Bay Area Air Quality Management District (Attn: Scott Lutz/Brian Jennison)
U. S. Fish and Wildlife Services (Attn: Steve Schwartzbach)
California Department of Fish and Game (Attn: Mike Rugg)
National Oceanic and Atmospheric Administration (Attn: Denise Klimas)
U. S. Army Corps of Engineers (Attn: Sharon Morlund)
Bay Conservation and Development Commission (Attn: Chris Perry)

Blind copy to:

09B, 1813, 1813EG
Admin Records (3 copies)
Chron, blue, pink, green
Writer: E. Galang, 1813EG, X-2560
File: NS Treasure Island