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NAS CECIL FIELD
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CONTAMINATION ASSESSMENT PLAN DAY TANK 2 NAS CECIL FIELD FL
6/1/1997
ABB ENVIRONMENTAL

CONTAMINATION ASSESSMENT PLAN
DAY TANK 2

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Unit Identification Code: N60200

Contract No.: N62467-89-D-0317/139

Prepared by:

ABB Environmental Services, Inc.
2590 Executive Center Circle, East
Tallahassee, Florida 32301

Prepared for:

Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29418

Bryan Kizer, Code 1842, Engineer-in-Charge

June 1997

ABB

8571-0002

June 26, 1997

Commanding Officer
Souther Division Naval Facilities Engineering Command
1255 Eagle Drive
North Charleston, SC 29418
Attention: Mr. Bryan Kizer, Code 1842

Subject: Contamination Assessment Plan
Day Tank 2
NAS Cecil Field, Jacksonville, Florida
Contract No. N62467-89-D-0317/139

Dear Bryan:

Attached please find two copies of the Contamination Assessment Plan (CAP) for the Day Tank 2 site located at Naval Air Station (NAS) Cecil Field, Jacksonville, Florida. The health and safety plan has been included as an attachment to the CAP. Two copies of the subject document have also been provided to Mr. Dave Kruzicki, NAS Cecil Field.

If you have any questions or comments please call me at 850-656-1293 (x 314). Thank you.

Very truly yours,

ABB ENVIRONMENTAL SERVICES, INC.

Rao Angara
Task Order Manager

cc: David Kruzicki, NASCF
File

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CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, ABB Environmental Services, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/139 are complete and accurate and comply with all requirements of this contract.

DATE: June 25, 1997

NAME AND TITLE OF CERTIFYING OFFICIAL: Rao Angara
Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL: Eric Blomberg, P.G.
Project Technical Lead

(DFAR 252.227-7036)

FOREWORD

To meet its mission objectives, the U.S. Navy performs a variety of operations, some requiring the use, handling, storage, or disposal of hazardous materials. Through accidental spills and leaks and conventional methods of past disposal, hazardous materials may have entered the environment in ways unacceptable by today's standards. With growing knowledge of the long-term effects of hazardous materials on the environment, the Department of Defense initiated various programs to investigate and remediate conditions related to suspected past releases of hazardous materials at their facilities.

One of these programs is the Comprehensive Long-Term Environmental Action, Navy Underground Storage Tank (UST) program. This program complies with Subtitle I of the Resource Conservation and Recovery Act and the Hazardous and Solid Waste Amendment of 1984. In addition, the UST program complies with all appropriate State and local storage tank regulations as they pertain to each naval facility.

The UST program includes the following activities:

- registration and management of Navy and Marine Corps storage tank systems,
- contamination assessment planning,
- site field investigations,
- preparation of contamination assessment reports,
- remedial (corrective) action planning,
- implementation of the remedial action plans, and
- tank and pipeline closures.

The Southern Division, Naval Facilities Engineering Command manages the Navy UST program and the Florida Department of Environmental Protection oversees the Navy UST program at Naval Air Station (NAS) Cecil Field.

Questions regarding the UST program at NAS Cecil Field should be addressed to Mr. Bryan Kizer, Code 1842, at (803) 820-5896.

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Naval Air Station Cecil Field
Jacksonville, Florida

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Appendix A: Site-Specific Health and Safety Plan for Contamination Assessment at Day Tank 2

GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
CA	contamination assessment
CAP	contamination assessment plan
FAC	Florida Administrative Code
NAS	Naval Air Station
ppm	parts per million
UST	underground storage tank

CONTAMINATION ASSESSMENT PLAN - DAY TANK 2

1.0 INTRODUCTION

ABB Environmental Services, Inc. (ABB-ES), has been contracted by Southern Division, Naval Facilities Engineering Command to prepare a contamination assessment plan (CAP) and a health and safety plan for the Day Tank 2 site at U.S. Naval Air Station (NAS) Cecil Field, Jacksonville, Florida. The site was previously assessed during the South Fuel Farm contamination assessment (ABB-ES, 1996) but a subsequent underground release of fuel occurred, and additional contamination assessment is required at the Day Tank 2 site.

The CAP outlines a strategy for the contamination assessment (CA) field investigation and sampling program that will identify any release of petroleum products from the Day Tank 2 underground storage tank (UST). The CAP includes the proposed field investigation and methodologies, and a health and safety plan.

2.0 SITE DESCRIPTION AND HISTORY

Day Tank 2, tank number 342DT2, is an earth-mounded UST located at the South Fuel Farm at the south end of the NAS Cecil Field industrialized area near the flight tower (Figure 1). The tank was installed in 1957 for the storage of JP-5 fuel. The capacity of the tank is 200,000 gallons, which is large enough to hold a 1-day supply of fuel for flight operations.

Soil and groundwater around Day Tank 2 were investigated during the contamination assessment of the South Fuel Farm in the spring of 1995. In October 1996, free petroleum product was observed in a piezometer located south of Day Tank 2. The release was believed to have been from the Day Tank 2 site or associated piping, and free product recovery was initiated by Bechtel Environmental, Inc. The free product recovery operation was completed in April 1997. Approximately 29,000 gallons of free product were recovered. Day Tank 2 was taken out of operation in October 1996 and is scheduled to be removed in the summer of 1997.

3.0 FIELD INVESTIGATION

A field investigation will be conducted at Day Tank 2 to assess the presence of petroleum contamination in soil, groundwater, and sediment. The scope of the contamination assessment was discussed during the June 3, 1997, NAS Cecil Field partnering meeting. Soil and groundwater screening will be conducted at the beginning of the assessment. These investigation areas include the area below the containment pond since this area has never been investigated and Day Tank 2 is no longer in operation. The results of the soil and groundwater screening and proposed monitoring well locations and depths will be presented to the partnering team, and the final well locations and depths will be selected. The assessment will also include piezometer installation (to delineate the extent of free product) and sampling of the sediment in the drainage ditch, which begins at the storm sewer discharge south of Day Tank 2. Petroleum contaminants were previously detected in the water discharging from the storm sewer and may have contaminated the downstream sediments.

Soil Borings. An estimated 50 soil borings will be advanced throughout the Day Tank 2 area of investigation. As described above, the area was previously investigated, and the proposed soil screening will take into account results from previous investigations and the results of the soil screening conducted by Bechtel Environmental, Inc., during the recent free product recovery operation. The majority of the borings will be advanced along the perimeter of the former 50 parts per million (ppm) soil contamination contour (Figure 2). Some borings will also be advanced within the 50 ppm contour to assess the current subsurface soil conditions.

Soil samples will be collected every 2 feet from the ground surface until the water table is reached. Soil samples will be screened for total hydrocarbon response by using an organic vapor analyzer equipped with a flame ionization detector, following the headspace analysis method as described in Chapter 62-770 of the Florida Administrative Code (FAC).

Piezometer Installation. The information collected during the free product removal operation and the soil screening program will be used to aid in the placement of piezometers, which will delineate free product at Day Tank 2.

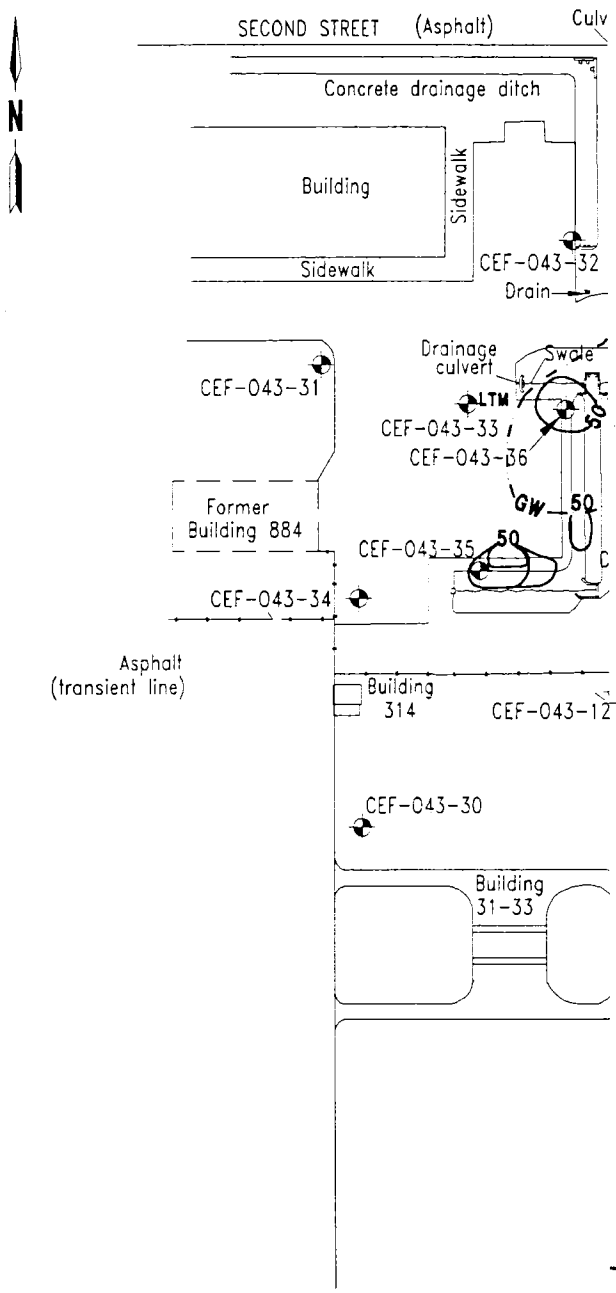
The piezometers will be constructed of 2-inch inside diameter, Schedule 40 polyvinyl chloride pipe with a 10-foot screen. A silica sand filter pack will be placed in the annulus from the bottom of the screen to land surface.

Groundwater Screening. *In situ* groundwater samples will be collected and screened onsite for volatile organic compounds to assess the extent of groundwater contamination and aid in the placement of permanent monitoring wells. Water-tight rods will be driven to depths of 10, 25, 45, and 65 feet below land surface for the collection of groundwater samples. The sampling locations will begin at the perimeter of the formerly identified groundwater plume (Figure 2) and will move downgradient until the groundwater contamination has been delineated both horizontally and vertically.

Monitoring Well Installation. The information gathered during the soil and groundwater screening will be used to aid in the placement of permanent monitoring wells. Proposed locations of monitoring wells will be presented to the NAS Cecil Field partnering team and upon approval the wells will be installed. Monitoring wells will be installed using hollow-stem auger techniques.

The monitoring wells will be constructed of 2-inch inside diameter, schedule 40 polyvinyl chloride pipe with a 10-foot screen. The permanent monitoring wells will be installed in accordance with Southern Division "Specifications for Groundwater Monitoring Well Installation and Sampling." Monitoring wells will be completed flush with surface grade and equipped with bolted manhole covers and locking caps. All monitoring wells will be surveyed by a Florida-registered land surveyor.

Groundwater Sampling. Prior to groundwater sampling, the monitoring wells will be purged using low-flow techniques. Low-flow purging techniques will be used to minimize excessive turbidity, eliminate the need for filtration, and decrease volume of contaminated purge water. All groundwater samples collected during the CA will be analyzed for the Kerosene Analytical Group outlined in Chapter 62-770, FAC.



LEGEND

- Shallow monitoring well and designation
- Deep monitoring well and designation
- Piezometer location and designation
- TerraProbe[SM] sample location and designation
- Soil contamination contour (OVA > 50 ppm) (dashed where inferred)
- Long-term monitoring well
- parts per billion
- volatile organic aromatics
- Stormwater drainline
- Underground storage tank
- Fence
- Stormwater flow direction
- Isoconcentration line representing total VOAs above 50 ppb, benzene above 1 ppb, and total naphthalenes above 100 ppb in shallow and deep zones of surficial aquifer

0 60 120

SCALE: 1 INCH = 120 FEET

FIGURE 2
EXTENT OF GROUNDWATER AND SOIL CONTAMINATION

CONTAMINATION ASSESSMENT PLAN, DAY TANK 2

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

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Sediment Sampling. Approximately three sediment samples will be collected from the ditch that begins southeast of Day Tank 2. The samples will be analyzed for the Kerosene Analytical Group parameters. It may be necessary to collect sediment samples from the ditch on the south side of the east-west runway. Sediment sampling locations will be identified during site reconnaissance.

4.0 REPORT WRITING

Upon completion of the field investigations, ABB-ES will analyze the data collected in the field and prepare a Contamination Assessment Report for the Day Tank 2 site. The contamination assessment report will include a discussion of site background information, investigation methodologies, the field and laboratory data in tabular and figure format, an evaluation and discussion of the presence of soil and groundwater contamination at the site, a summary, conclusions, and recommendations for further action at the site.

REFERENCE

ABB Environmental Services, Inc. 1996. Contamination Assessment Report Addendum, South Fuel Farm Site, Facility 43, Naval Air Station Cecil Field, Jacksonville, Florida. Prepared for Southern Division, Naval Facilities Engineering Command, North Charleston, South Carolina (January).

APPENDIX A

SITE-SPECIFIC HEALTH AND SAFETY PLAN FOR CONTAMINATION ASSESSMENT AT DAY TANK 2