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SAMPLING AND ANALYSIS OUTLINE FOR SITE A-4 FACILITY 682 BASE REALIGNMENT
AND CLOSURE ZONE A YELLOW WATER WEAPONS AREA GROUP 1 NAS CECIL FIELD
FL
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ABB ENVIRONMENTAL SERVICES INC

SAMPLING AND ANALYSIS OUTLINE

SITE A-4, FACILITY 682

BASE REALIGNMENT AND CLOSURE

**ZONE A, YELLOW WATER WEAPONS AREA
GROUP I**

**NAVAL AIR STATION, CECIL FIELD
JACKSONVILLE, FLORIDA**

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GLOSSARY OF TERMS AND ABBREVIATIONS

ABB-ES ABB Environmental Services, Inc.
BRAC Base Realignment and Closure
DQO data quality objective
EBS Environmental Baseline Study
POP BRAC Cecil Field Project Operations Plan
PRE Preliminary Risk Evaluation
SAO Sampling and Analysis Outline
TAL target analyte list
TCL target compound list
YWWA Yellow Water Weapons Area

02824

1.0 SITE DESCRIPTION

This Base Realignment and Closure (BRAC) Program Phase II Sampling and Analysis Outline briefly describes and proposes a plan for assessment of Site A-4 located in the west central section of the Yellow Water Weapons Area (YWWA) at Naval Air Station Cecil Field. Site A-4 is base facility No. 682, an abandoned wastewater treatment plant. The structures associated with Site A-4 include an Imhoff tank, two shallow sludge drying beds, and two lagoons.

The wastewater treatment plant construction date is unknown at this time; however, aerial photographs taken in November 1960 show the facility under construction. The lagoons had not been excavated at that time, but are shown clearly in aerial photographs taken in December 1970. It may have received wastewater for only a short time because another wastewater treatment plant, located south of Mariner Road (Figure 1), supported the now-abandoned facilities associated with the Yellow Water Gunnery Training School in the 1940's, and the present-day housing area, located in the southwest part of YWVA, is served by a newer wastewater treatment plant located within that area.

Site A-4 (Figure 1) is located on the west side of Wildcat Road, southwest of the Yellow Water Weapons Complex. A stormwater drainage system, consisting of surface water diversion ditches around the site perimeter, discharges into the Caldwell Branch of Yellow Water Creek.

2.0 ENVIRONMENTAL BASELINE SURVEY COLOR DESIGNATION

The site was designated with a Grey color code in the Environmental Baseline Survey (EBS) (ABB Environmental Services, Inc. [ABB-ES], 1994a), due to lack of information about the site operations. Aboveground features observed during a site walkover in October 1994 included a concrete Imhoff tank, two low, curbed drying beds surrounded by a large concrete apron, two water-filled lagoons, and a 10- to 12-inch diameter effluent discharge pipe, which was connected to the westernmost lagoon via a below-ground valve box. The Imhoff tank has a solid top; the aboveground tank piping system was capped. The aboveground effluent pipe was also capped at its westernmost end; the eastern end of the piping was connected to the westernmost (Figure 1) lagoon via the valve box.

Below-ground features include the valve box previously mentioned and a vault. At ground surface, the vault is vented with two standing air pipes and an open personnel entry hatch. It is located near the Imhoff tank. The vault was observed to be partially filled with water. The depth of the vault is not known and was not determined during the walkover.

3.0 RECOMMENDATIONS

Completion of the following sampling program is recommended to verify the presence or absence of contamination in surface water, sediment, surface soil, and groundwater. Because this base facility may have accepted wastewater from industrial and residential sources, a broad spectrum analytical program (i.e.,

the full suite of target compound list [TCL] organics and target analyte list [TAL] inorganics) is recommended to assess Site A-4.

The recommended analytical level to meet the data quality objective (DQO) for this site is Level IV to meet the potential requirement for completion of a Preliminary Risk Evaluation (PRE) if site media are contaminated.

Sample collection techniques, quality assurance objectives, quality control requirements, and sample handling and shipping procedures are outlined in the BRAC Cecil Field Project Operations Plan (POP) (ABB-ES, 1994b). The proposed sampling locations and new exploration locations are shown on Figure 1.

3.1 SURFACE WATER AND SEDIMENT. Surface water and sediment samples will be obtained from the underground vault and each of the two wastewater lagoons to screen for contaminants in these areas. Three surface water and three sediment grab samples will be collected and analyzed for full suite TCL organics and TAL inorganics.

3.2 SURFACE SOIL. To screen for contaminants in the sludge drying beds, concrete apron area, and Imhoff tank, five surface soil grab samples will be collected from a depth of 0 to 1 foot below land surface and analyzed for full suite TCL organics and TAL inorganics.

3.3 GROUNDWATER. Three shallow monitoring wells will be installed and screened across the water table to evaluate the local groundwater flow direction and water quality in the vicinity of the wastewater lagoons.

Although the spacing of the monitoring wells is designed such that a potential contaminant migration direction can be calculated, an optional fourth well may be necessary to reliably assess the local groundwater flow direction. To evaluate the need for a fourth well, water table elevation measurements from the first three wells will be used to calculate the shallow groundwater flow direction. The decision to install the optional well, and its location, will be based on this calculation.

One round of groundwater samples obtained from the new wells will be analyzed for full suite TCL organics and TAL inorganics.

The results of analysis, a contaminant assessment, and recommendations for reclassification of the property will be reported in a draft Site Summary Report for Site A-4. The project team will seek concurrence from the BRAC Cleanup Team before completing a PRE.

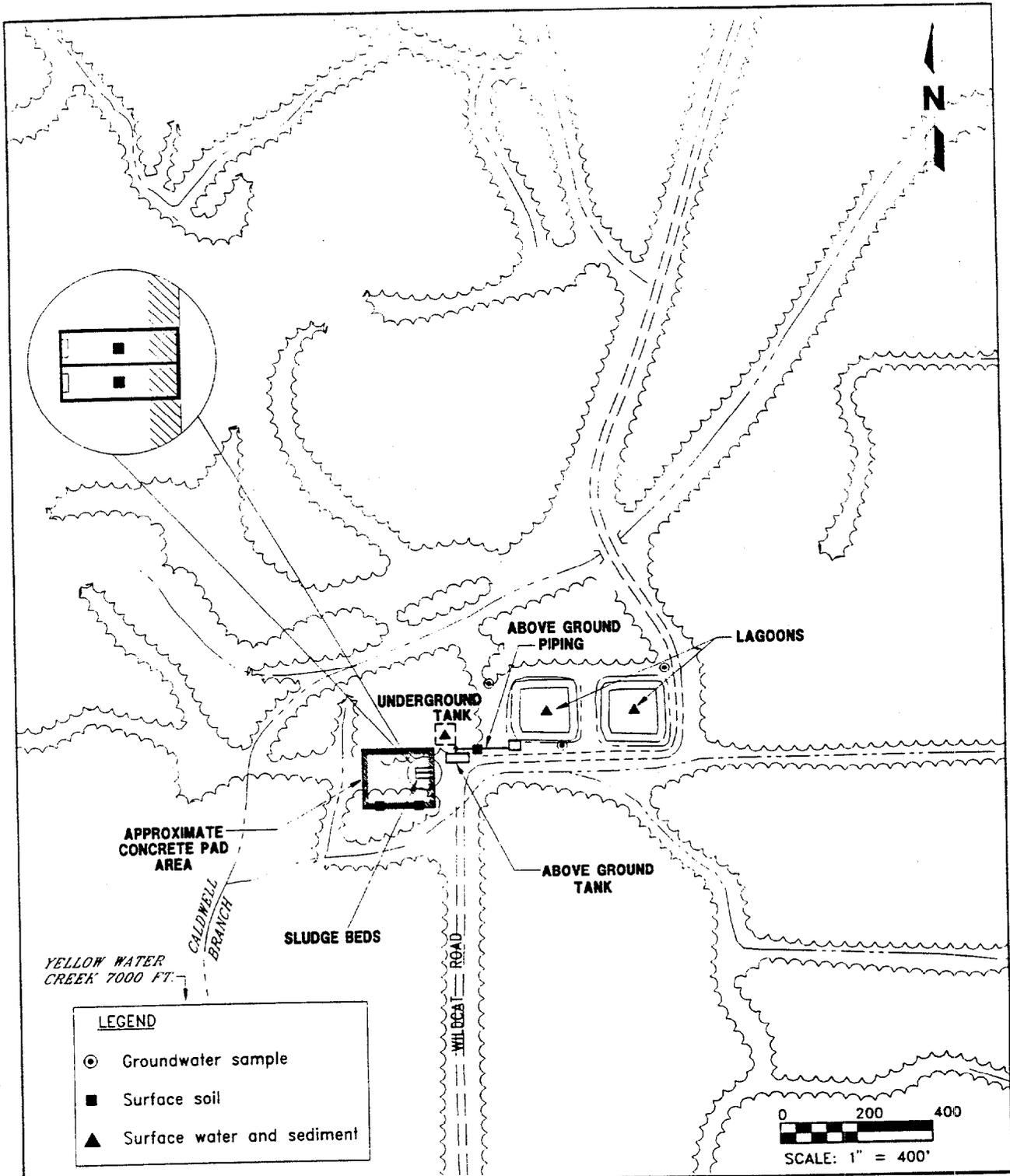


FIGURE 1
SITE A-4
ABANDONED WASTEWATER TREATMENT PLANT
YELLOW WATER WEAPONS AREA



PHASE II SAMPLING AND ANALYSIS
OUTLINES, GREY SITES

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

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