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"LETTER OF TRANSMITTAL AND OPERABLE UNIT 2 (OU 2) SITE 17 DEWATERING, MONITORING AND DISCHARGE PLAN MEMORANDUM NAS CECIL FIELD FL"
12/2/1994
ABB ENVIRONMENTAL SERVICES INC

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NAS Cecil Field Administrative Record
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December 2, 1994

Mr. Vincent Seibold, P.E.
Industrial Wastewater Facilities Section Supervisor
Florida Department of Environmental Protection
Northeast Region
7825 Baymeadows Way, Suite B200
Jacksonville, FL 32256-7590

Subject: Notice of Intent to Temporarily Discharge Treated Groundwater to Rowell Creek NAS Cecil Field, Jacksonville, Florida

Dear Mr. Seibold:

On behalf of Southern Division Naval Facilities Engineering Command (SOUTHDIV), ABB Environmental Services, Inc. is pleased to forward a dewatering, monitoring, and discharge plan for groundwater at Site 17; NAS Cecil Field; Jacksonville, Florida. This plan is intended to ensure that surface waters are not impacted during an upcoming remedial action to be conducted at the site. This remedial action is expected to last 90 days and is being accomplished under the CERCLA RI/FS Program at NAS Cecil Field.

Included in the plan is a site location map and a figure showing the proposed discharge point to Rowell Creek.

If you have any questions or comments, please do not hesitate to contact me at (904) 656-1293 ext. 248.

Sincerely,

ABB ENVIRONMENTAL SERVICES, INC.

Robert C. Lunardini Jr

Robert C. Lunardini, Jr., P.E.
Senior Engineer

Jack Pittman
Task Order Manager

enclosure

cc: Mr. Steve Wilson, SOUTHDIV
Mr. Brian Stockmaster, SOUTHDIV
Mr. John Dingwall, NAS Cecil Field
Mr. Bart Reedy, USEPA
Mr. Mike Deliz, FDEP
Mr. Herman Bauer, Bechtel

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SITE 17 DEWATERING, MONITORING, AND DISCHARGE PLAN

Introduction

Naval Air Station (NAS) Cecil Field is a Superfund site being cleaned up under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). NAS Cecil Field is located in Jacksonville, Florida (see Figure 1). ABB Environmental Services, Inc. (ABB-ES), has been contracted by the Department of the Navy, Southern Division, Naval Facilities Engineering Command (SOUTHDIV) to provide consulting services at NAS Cecil Field. Site 17, known as the Oil and Sludge Disposal Area Southwest, has been investigated and found to contain contaminated soil and groundwater. A remedial action to clean up subsurface soil has been scheduled for the site. Approximately 10,000 cubic yards will be excavated and remediated onsite by a mobile thermal treatment system to remove contaminants. The excavation was originally scheduled to occur in October 1994 when historically the water table was six to eight feet below land surface (bls). However, due to uncharacteristically heavy precipitation this year, the current water table at the site is approximately 2 feet bls. Because of scheduling constraints affecting Site 17 and other sites at the facility, the Navy has elected to temporarily dewater the site so excavation and soil treatment can proceed without further delay.

The Navy is proposing dewatering using a series of horizontal drains. Extracted groundwater would then be pumped to an air stripper for treatment. Treated effluent would then be discharged to Rowell Creek (see Figure 2).

Groundwater Contaminants of Concern (COCs)

A draft Baseline Risk Assessment (BRA) has been prepared and is currently undergoing review by the State of Florida and USEPA. The BRA identified seven compounds in Site 17 groundwater that may pose a risk to human health and the environment. A draft Feasibility Study (FS) has been prepared and scheduled for regulatory review in December 1994. The FS identified groundwater target cleanup levels (TCLs) that are protective of human health and the environment for all COCs . The Navy is proposing to treat groundwater to the TCLs listed on Table 1. TCLs were compared to the State of Florida Surface Water Quality Standards (SWQS) as defined in 17-302 F.A.C. and found to be the more stringent standard in each case.

Sampling Schedule

Dewatering is expected to last 12 weeks. The maximum pumping rate is expected to be 250 gallons per minute (0.36 MGD). The Navy is proposing to temporarily containerize all treated groundwater (approximately 60,000 gallons) during an initial system start-up period. The system will be then be shut down while the treated effluent is being analyzed for COCs using EPA Methods 8021 and Modified 604. If

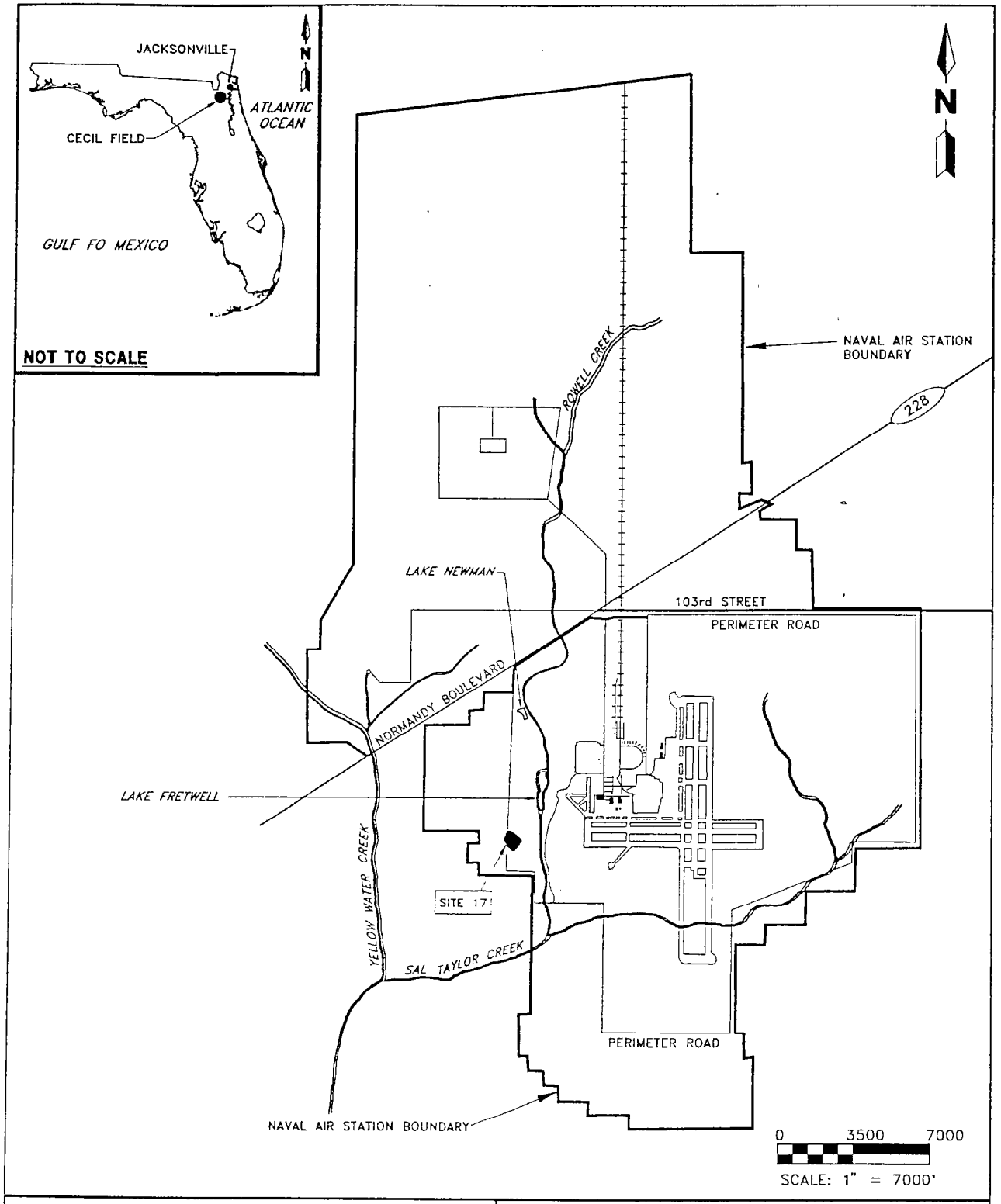

FIGURE 1
FACILITY MAP WITH LOCATION OF SITE 17

CECIL/FFSFACIL/WDW-NP/12-01-94

DEWATERING DESIGN, SITE 17

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

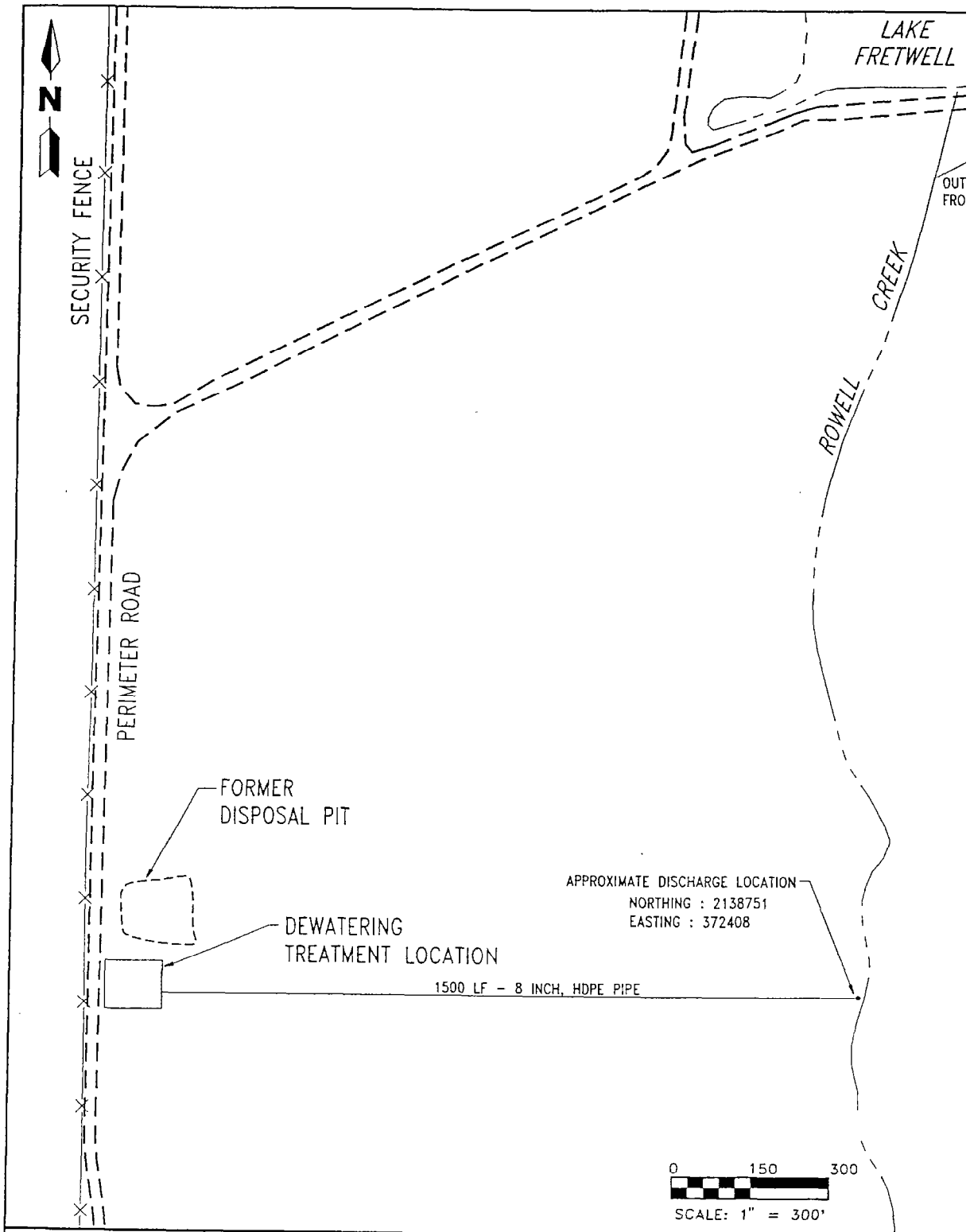

FIGURE 2
DEWATERING DISCHARGE POINT TO ROWELL CREEK

CECIL/DEWAT/NP/12-01-94

DEWATERING DESIGN, SITE 17

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Table 1
Monitoring Requirements and Interim Effluent Limitations

Interim Remedial Action
Operable Unit 2, Site 17
NAS Cecil Field; Jacksonville, Florida

PARAMETER	INFLUENT (ug/l)	SWQS (ug/l)	TCL (ug/l)	MINIMUM FREQUENCY	SAMPLE TYPE	SAMPLE LOCATION
Flow	250 gpm	N/A	N/A	Continuous	Recording Flow-Meter	Effluent
D.O.	1 mg/l	5 mg/l	N/A	Weekly	Grab	Effluent
pH	7	6.0 - 8.5	N/A	Weekly	Grab	Effluent
Benzene	4	71.28	1	Weekly	Grab	Effluent
Trichloroethene	6	80.7	3	Weekly	Grab	Effluent
Methylene Chloride	1800	1580	5	Weekly	Grab	Effluent
2,4 Dimethylphenol	330	N/A	700	Weekly	Grab	Effluent
2-Methylphenol	740	N/A	1000	Weekly	Grab	Effluent
4-Methylphenol	320	N/A	100	Weekly	Grab	Effluent
Phenol	14	4,600,000	20,000	Weekly	Grab	Effluent

Notes: All concentration are in units of micrograms per liter unless otherwise specified.
Influent concentrations are an average of analytical results from surficial aquifer monitoring well samples.

SWQS = Surface Water Quality Standards as defined in 17-302 FAC
TCL = Target Cleanup Level
gpm = gallons per minute
N/A = Not Available
D.O. = Dissolved Oxygen

analytical results indicate that TCLs have been met, the containerized water will be discharged to Rowell Creek and the full-scale dewatering operation will begin with direct discharge of treated effluent to Rowell Creek. During full-scale operation, treated effluent will be sampled and analyzed for the groundwater COCs once per week as outlined on Table 1. If TCLs are not met, the containerized water will be recycled through the air stripper and tested again.

As shown on Table 1, all the phenols except 4-methylphenol are already below TCLs. In addition to COCs, other parameters that will be monitored are flow, D.O., and pH. D.O. concentrations are not expected to be a problem once the groundwater has been through the air stripper.

Discharge

Discharge of the treated groundwater will be through a pipeline to Rowell Creek. The temporary pipeline will be 8-inch diameter high density polyethylene approximately 1500 linear feet in length. The pipe will be installed above ground and riprap will be installed at the discharge point to control erosion and dissipate energy. The proposed discharge location is shown on Figure 2. Upon completion of this remedial action, the pipe will be removed.

Approximately 1800 feet upstream from the Site 17 discharge point, the NAS Cecil Field WWTP discharges an average of 0.8 MGD into Rowell Creek. Approximately 1500 feet downstream from the Site 17 discharge point is a USGS flow monitoring station. Based on data collected from the last two years, the average daily flow in this section of Rowell Creek is 10.8 MGD. The majority of this flow is released from the dam at Lake Fretwell.

Robert C. Lunardini, Jr.
Professional Engineer No. 46657
Expires February 28, 1995

Robert C. Lunardini Jr
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