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CNC CHARLESTON  
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WORK PLAN FOR AREA OF CONCERN 659 (AOC 659) ZONE H BUILDING 14 CNC  
CHARLESTON SC  
7/30/2001  
CH2M HILL

**WORK PLAN FOR AREA OF  
CONCERN 659; ZONE H  
BUILDING 14**

Prepared by:

CH2M-Jones, LLC.  
Charleston Naval Complex  
1849 Avenue F  
North Charleston, South Carolina 29405  
July 30, 2001

Prepared For:

Southern Division Naval Facilities Engineering Command  
P.O. Box 190010  
North Charleston, South Carolina 29419-9010

## 1.0 INTRODUCTION

### 1.1 Background

The Charleston Naval Complex is located on the banks of the Cooper River in Charleston County, South Carolina, and lies within the corporate boundaries of the city of North Charleston, approximately 5 miles north of the city of Charleston. The Complex is bounded on the east by the Cooper River and on the north, south, and west by the city of North Charleston.

### 1.2 General Site Description

The CNC is located in the city of North Charleston, on the west bank of the Cooper River in Charleston County, South Carolina as shown in **Figure 1**. This installation consists of two major areas: an undeveloped dredge materials area on the east bank of the Cooper River on Daniel Island in Berkley County, and a developed area on the west bank of the Cooper River. The developed portion of the base is on the peninsula bounded on the west by the Ashley River and on the east by the Cooper River. The site is located within the developed portion of the base (Tetra Tech, NUS [TTNUS], 1999).

### 1.3 Previous Investigation

AOC 659 consisted of Building 14, which was a 30,000-gallon, welded-steel Aboveground Storage Tank (AST). The tank was enclosed in a five (5) foot high earthen berm. From 1958 to 1990, it was used to store diesel fuel for small crafts. Prior to 1958, the site was undeveloped tidal marsh. On July 5, 1996 the *Final RCRA Facility Investigation Report for Zone H*, dated June 18, 1998 was completed by Ensafe. There were no VOC, SVOCs, cyanide, metals, or pesticides/PCBs found in soils during the investigations in the 1996 Investigation Report. Only Total Petroleum Hydrocarbons (TPHs) were found during the investigation. Total Petroleum Hydrocarbons were found at all four of the soil sample locations (see **Figure 3**). For concentrations and interval depths of contamination refer to the *Final RCRA Facility Investigation Report for Zone H*, dated June 18, 1998.

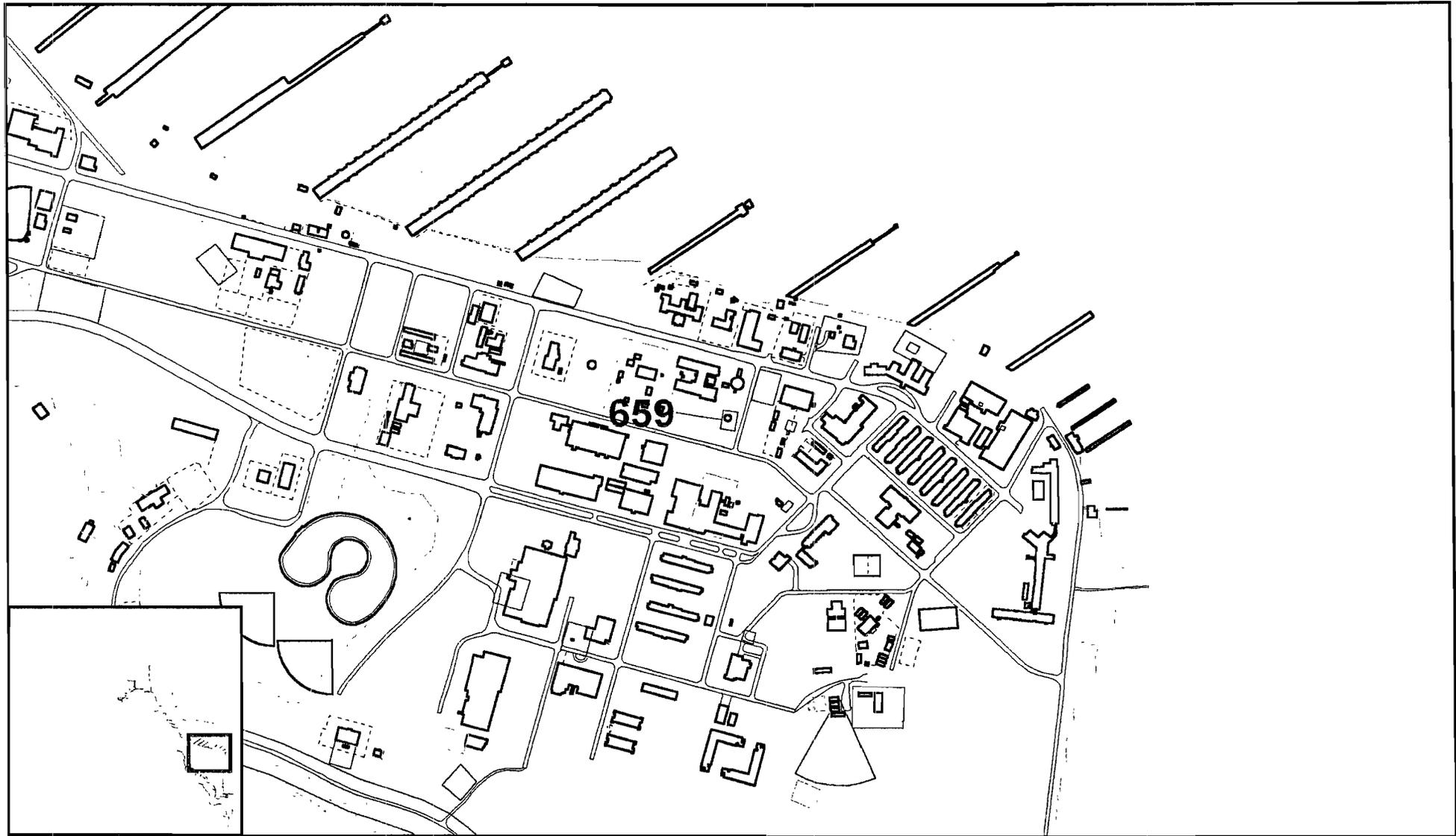
On June 6, 1997 two probe samples (659GP00215 and 659GP00115) were analyzed for VOCs, and SVOCs. No constituents of concern were above the RBSLs.

In a letter dated November 24, 1997, SCDHEC concurred with the Navy's recommendation to transfer AOC 659 to the UST program (see **Attachment I**). Results from the RCRA investigation found no spill reports, inspection reports, employee interviews, or visual observations, which indicated any release at this site. Also no petroleum constituents were found in the investigation.

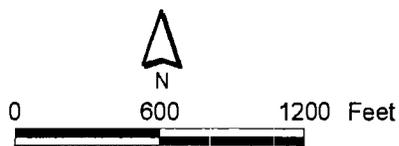
## 2.0 Work Plan Schedule

### 2.1 Soil Borings

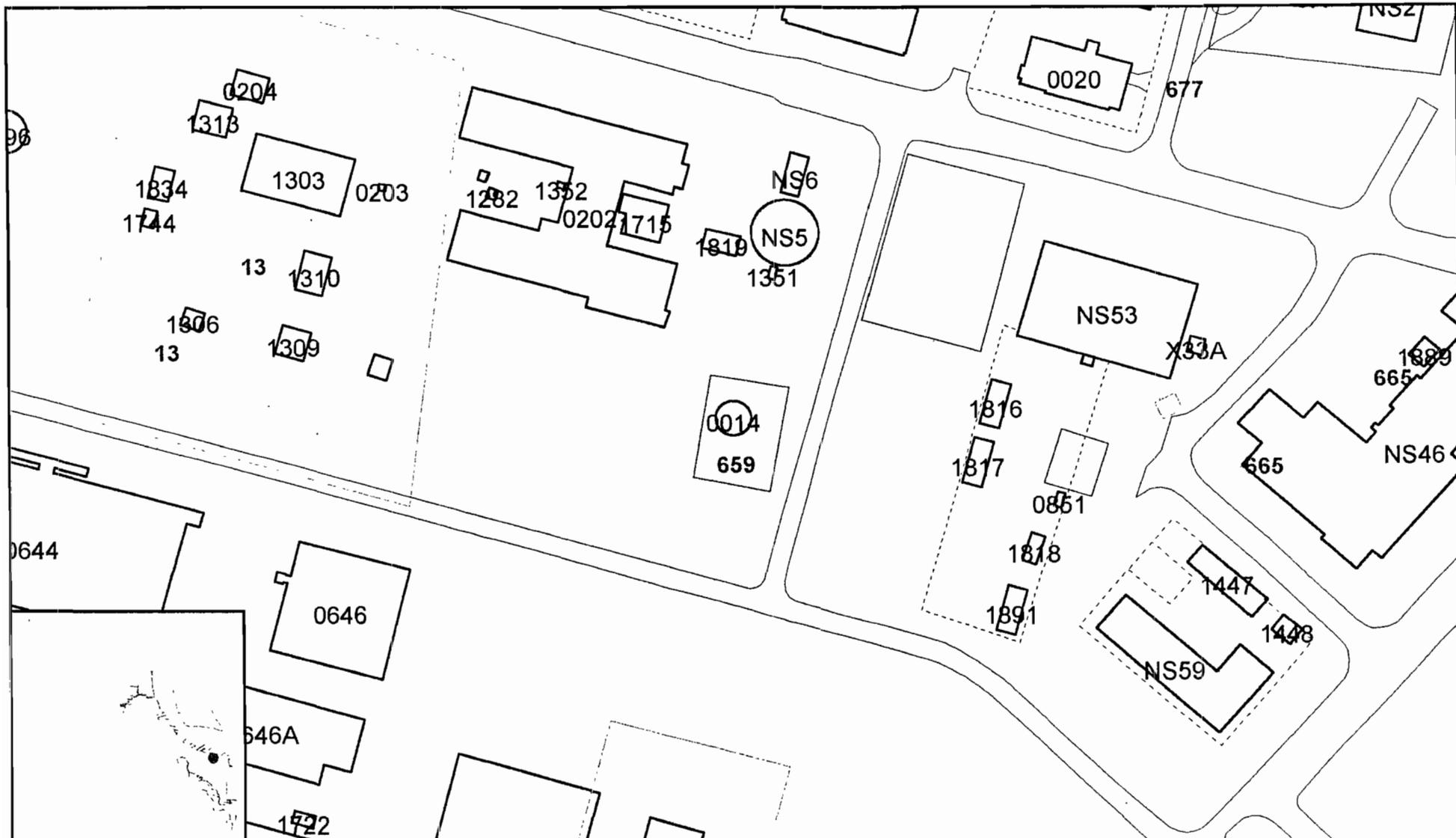
A total of six soil borings will be collected adjacent to the former AST tank at this site. Two soil samples will be collected around the former tank and four soil samples will be collected along the former pipelines (**Figure 4**). Because this site consisted of an above-ground storage tank and aboveground piping, only the first interval will be collected and sampled by a certified laboratory. The first interval will be from 0-2 feet below land surface (bls). Soils collected will be analyzed for VOCs, SVOCs, and MtBE.



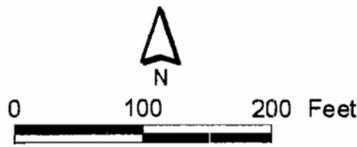
- Fence
- Railroads
- Roads - Lines
- Bridges
- Surrounding Area
- Shoreline
- AOC Boundary
- SWMU Boundary
- Buildings
- Zone Boundary



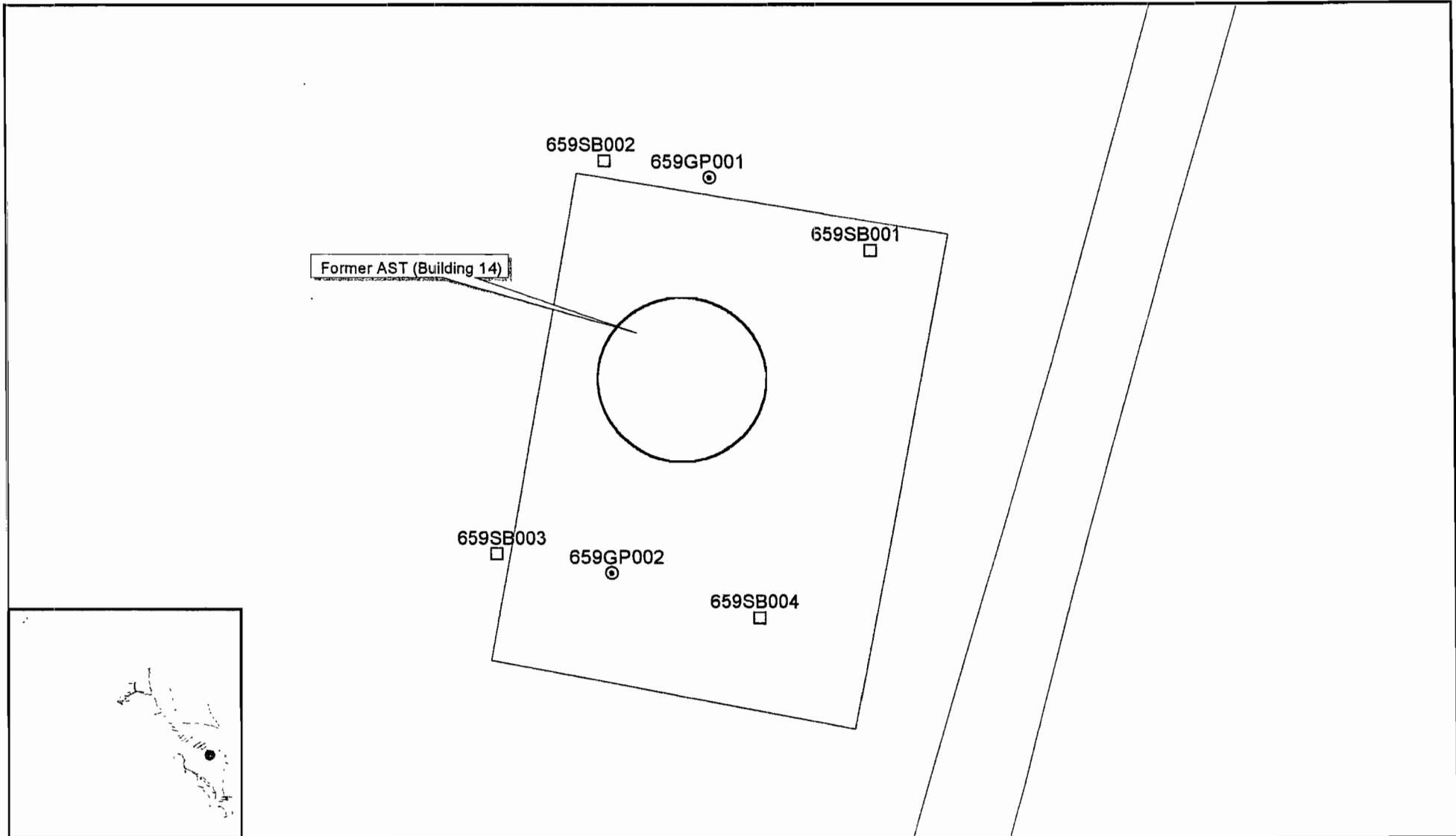
**Figur 1**  
 AOC 659  
 Zone H  
 Charleston Naval Complex



- Fence
- Railroads
- Roads - Lines
- Bridges
- Surrounding Area
- Shoreline
- AOC Boundary
- SWMU Boundary
- Buildings
- Zone Boundary



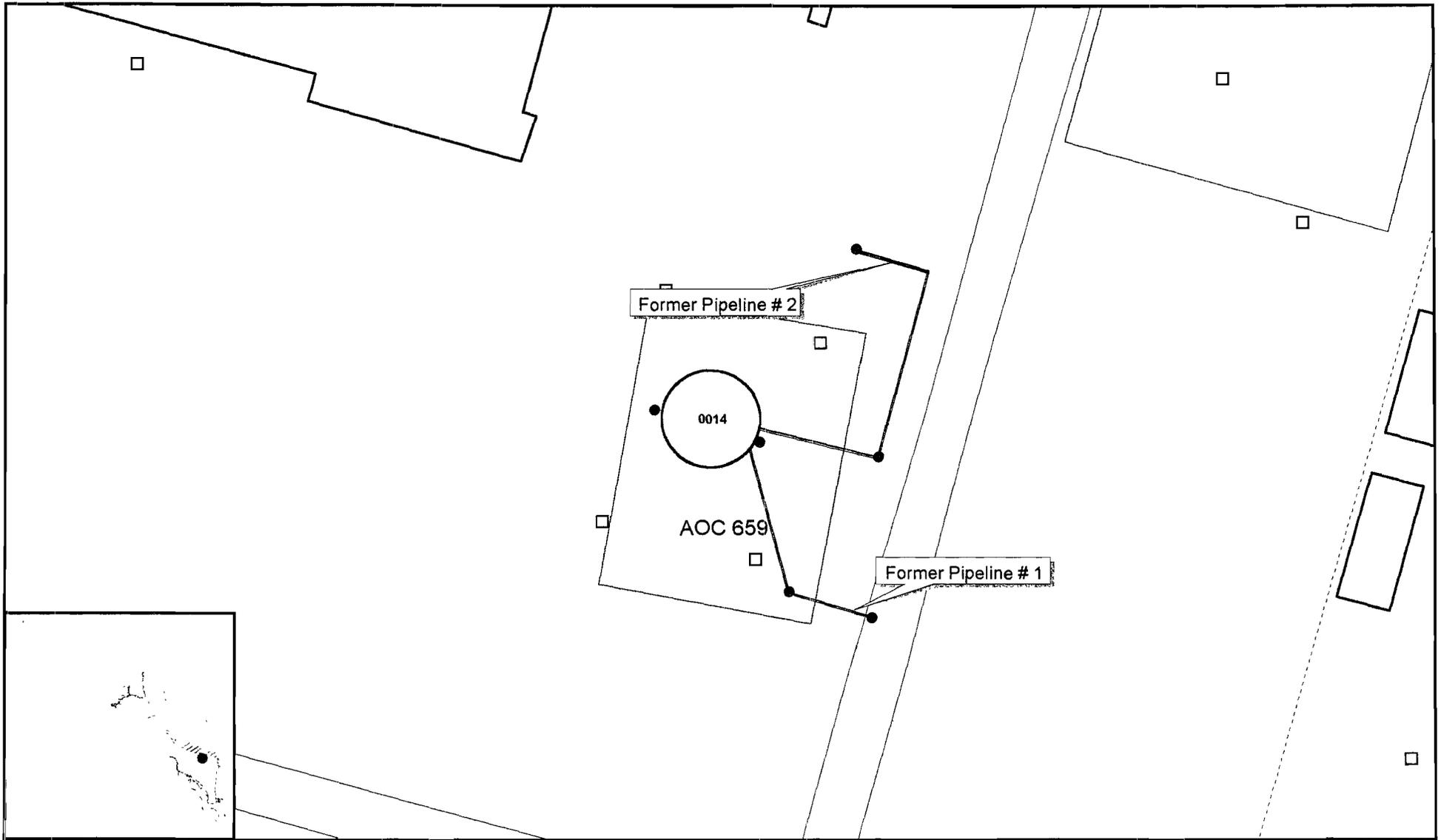
**Figure 2**  
 AOC 659  
 Zone H  
 Charleston Naval Complex



- |                     |                  |
|---------------------|------------------|
| □ Soil Boring       | Surrounding Area |
| ⊙ Groundwater Probe | Shoreline        |
| ⋈ Fence             | □ AOC Boundary   |
| ⋈ Railroads         | ⋈ SWMU Boundary  |
| ⋈ Roads - Lines     | □ Buildings      |
| ⋈ Bridges           | □ Zone Boundary  |



**Figure 3**  
 AOC 659  
 Zone H  
 Charleston Naval Complex



- ☐ Soil Boring
- Proposed Soil Boring
- Proposed Monitoring Well
- ⚡ Fence
- ⚡ Railroads
- ⚡ Roads - Lines
- ⚡ Bridges
- Surrounding Area
- Pavement
- Sidewalk
- Shoreline
- ☐ AOC Boundary

- ☐ SWMU Boundary
- ☐ Buildings
- ☐ Zone Boundary



**Figure 4**  
 AOC 659 / Bldg 14  
 Zone H  
 Charleston Naval Complex

**CH2MHILL**

# **ATTACHMENT I**



2908-12241

2600 Bull Street  
Columbia, SC 29201-1708

COMMISSIONER:  
Douglas E. Bryant

BOARD:  
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CERTIFIED MAIL

November 24, 1997

LCDR Paul Rose  
Southern Division, NAVFACENGCOM  
Caretaker Site Office  
P.O. Box 190010  
North Charleston, SC 29419-9010

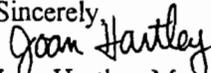
Re: Addendum to Final Zone H RCRA Facility Investigation  
(RFI) Report, Dated September 30, 1997  
Charleston Naval Base  
SC0 170 022 560

Dear LCDR Rose:

The South Carolina Department of Health and Environmental Control (Department) has reviewed the above referenced document according to applicable State and Federal Regulations, and the Charleston Naval Base Hazardous Waste Permit, effective June 5, 1990. The US EPA did not provide comments. Based on this review, the Department concurs with the Navy's recommendation on AOC 659 to be transferred to the UST program, and the No Further Action (NFA) recommendation on AOC 661, and AOC 665. The Department does not concur with the Charleston Naval Base NFA recommendation on AOC 667/SWMU 138. The RFI work at these sites is not complete and has not adequately defined the extent of contamination. Additional work under the RFI phase needs to be implemented at AOC 667/SWMU 138 according to the attached comments.

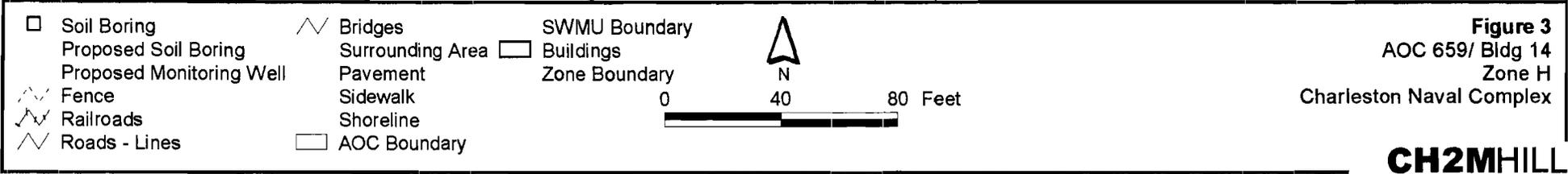
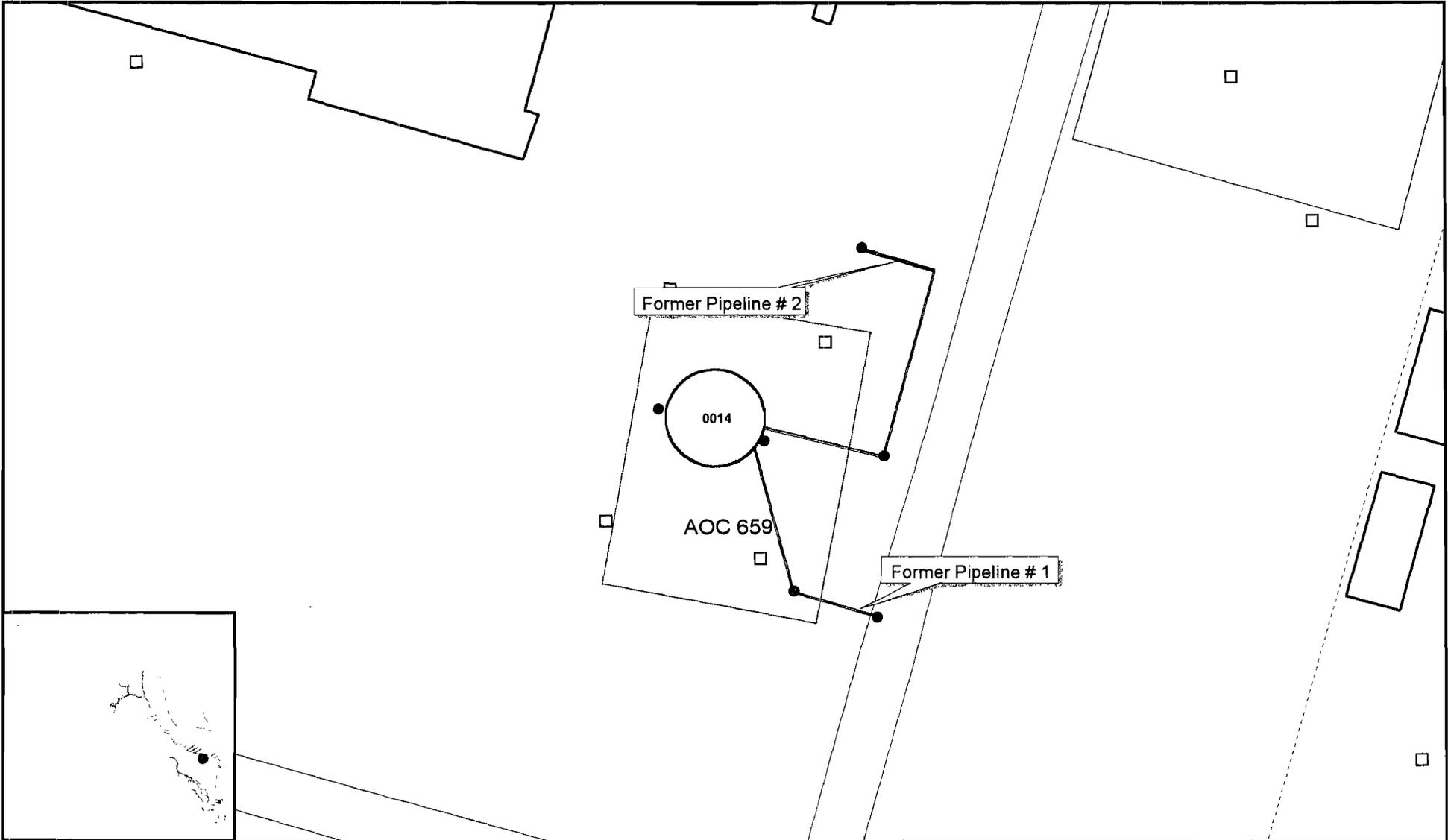
Upon receipt of this letter and within thirty (30) days, the Charleston Naval Base should propose additional work at AOC 667/SWMU 138 to complete the RCRA Facility Investigation (RFI) phase.

Should you have any questions regarding this issue, please contact Johnny Tapia at (803) 896-4179 or Paul Bergstrand at (803) 896-4016.

Sincerely,  
  
Joan Hartley, Manager  
Corrective Action Engineering Section  
Bureau of Land & Waste Management

Attachments

cc: Paul Bergstrand, Hydrogeology  
Rick Richter, Trident EQC  
Tony Hunt, SOUTHNAVFACENGCOM  
Paul Bristol, GW Assessment & Development  
Dan Spariosu, EPA Region IV



**Figure 3**  
 AOC 659/ Bldg 14  
 Zone H  
 Charleston Naval Complex