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FACT SHEET PROPOSED INTERIM REMEDIAL ACTION AT OPERABLE UNIT 4 (OU 4) NTC  
ORLANDO FL  
6/1/2001  
NAVFAC SOUTHERN

# FACT SHEET

June 2001

This fact sheet was developed to inform interested citizens about the Naval Training Center (NTC), Orlando environmental program. Fact Sheets will be distributed periodically to keep the community informed. Additional copies of these fact sheets can be obtained by calling the NTC Environmental Coordinator Office at (407) 895-6714.



## Naval Training Center

Orlando, Florida

Update on Interim Remedial Action at OU 4

### Site Description

Operable Unit 4 (OU 4) occupies approximately 7 acres in the north-western section of Area C. Area C is located approximately 1 mile west of the Main Base. Figure 1 shows the location of OU 4, immediately adjacent to Lake Druid. The western half of the site is wooded with dense vegetation on the shore of Lake Druid; the eastern half is occupied by Building 1100 and asphalt paving. Building 1100 housed the base dry cleaning and laundry facility from 1941 to 1994, when it was permanently closed. Since approximately 1958, the facility had used tetrachloroethene (PCE), a

solvent that was commonly used for dry cleaning. Waste solvent was discharged from the facility to the sewer system through sub-grade surge tank and piping.

### Previous Site Investigations and Cleanups

Environmental investigations at the site began in 1994. During these investigations, samples were collected from the groundwater, subsurface soil, sediment of Lake Druid, soil gas, surface soil, and surface water from Lake Druid. Chlorinated volatile organic compounds (CVOCs) were detected at concentrations exceeding Federal and State cleanup standards in

all media, including the original contaminant PCE and by-products of its natural subsurface degradation such as trichloroethylene (TCE) and cis-1,2 dichloroethylene (DCE). Additionally, arsenic, polynuclear aromatic hydrocarbon (PAH), and polychlorinated biphenyl (PCB) were detected in surface soil onsite. To reduce the risk of human exposure, the contaminated soil in these areas was excavated and disposed offsite in 1999.

To reduce the risk of human exposure to CVOCs in surface water in Lake Druid, a groundwater recirculation well system was installed in 1998 to intercept groundwater containing concentrations greater than 100 parts per billion (ppb) of total CVOCs from entering Lake Druid. The groundwater recirculation well system consisted of two wells that simultaneously pump contaminated water out and reinject treated groundwater to create a circulation zone within the groundwater that captures all contaminants flowing into its zone of influence. This circulation system operated for two years and was shut down due to operational difficulties.

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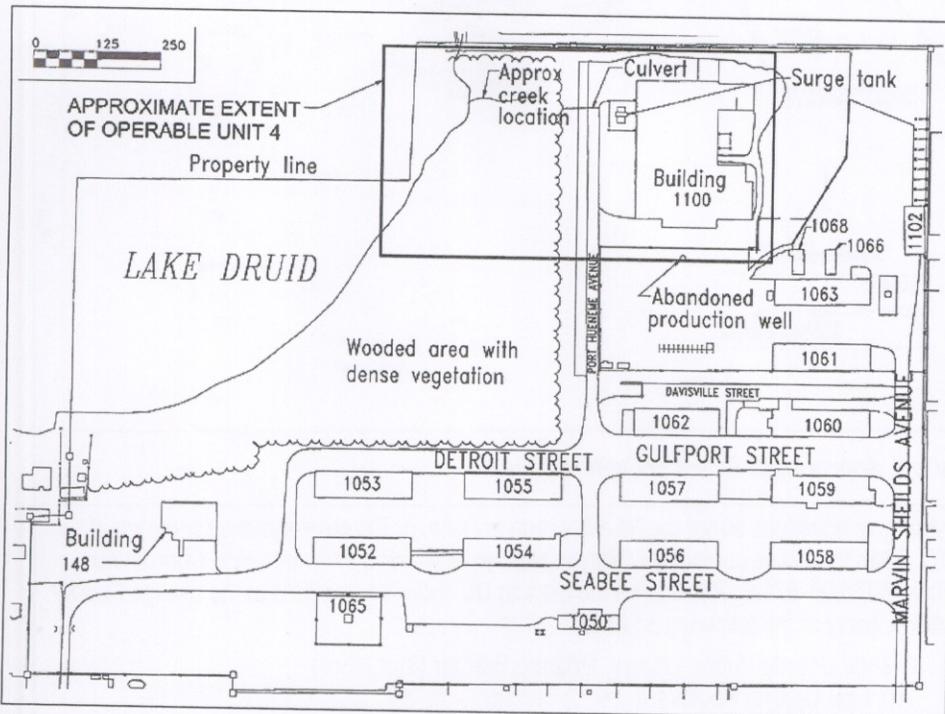


Figure 1. OU 4 Site Location Map



Figure 2. Above-ground Air Stripping Unit

## Upgraded Groundwater Interim Remedial Action

In 2000-2001, the existing recirculation system was replaced with a more conventional groundwater extraction and treatment system. The objective of the system upgrade was the same as the original system, to prevent migration of groundwater containing greater than 100 ppb of total CVOCs to Lake Druid. The existing wells are used as pumping wells, the groundwater is treated using an above-ground air stripping unit, and the treated water is discharged to the City of Orlando sanitary sewer system in compliance with a special industrial user discharge permit from the City. Figure 2 presents a photo of the above-ground air stripping unit.

## How It's Working

The system began operations in January 2001 and completed successful startup testing in March 2001. Operations of the system were evaluated in detail in May 2001. Figure 3 illustrates the approximate extent of the capture zone as it relates to total CVOC concentrations in groundwater. It shows that the system is meeting its objective to capture all groundwater containing greater than 100 ppb total CVOC.

## What's Next

Effective operations of the system upgrade have been determined. A full-scale remediation system is planned for design and construction in 2001 to treat the source of contamination. It is probable that the groundwater extraction and treatment system will operate in conjunction with the source area treatment system so that remediation may be performed in a cost effective and expeditious manner.

## Project Organization

The project organizations responsible for performing the onsite work include the following:

- Federal Regulatory Agency - EPA Region 4, Atlanta, GA
- State Regulatory Agency - FDEP, Tallahassee, FL
- Owner - US Navy, Southern Division, Naval Facilities Engineering Command, Charleston, SC
- Remedial Action Contractor - CH2M HILL Constructors, Inc., Atlanta, GA
- Comprehensive Long-Term Environmental Action Navy (CLEAN) Contractor - TetraTech NUS, Inc., Pittsburgh, PA

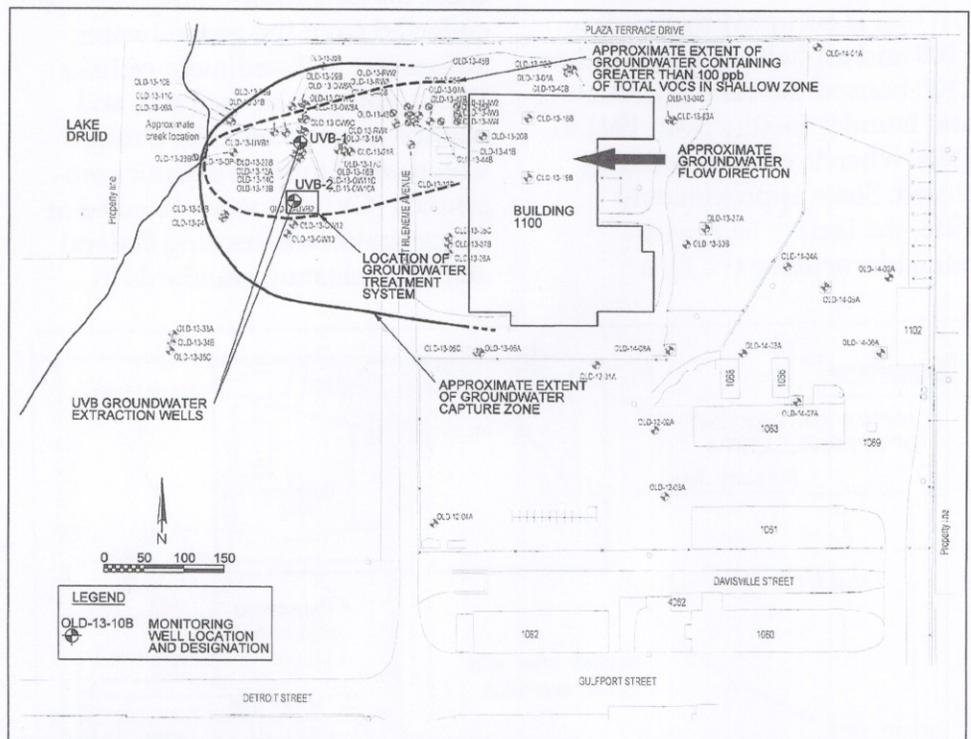


Figure 3. Approximate Extent of Capture Zone

If you have questions about the Navy's action at OU 4, or the environmental program at NTC, Orlando, please contact **Mr. Wayne Hansel** at the NTC Environmental Coordinator Office (407/895-6714). Reports on the work at OU 4 can be reviewed at the Orange County Public Library at the following address:

Orange County Public Library, Orlando Branch (2nd Floor)  
 101 East Central Boulevard  
 Orlando, FL 32801  
 407/425-4694