



## Carswell/Plant 4

# FINAL 1999 ANNUAL GROUNDWATER MONITORING REPORT FOR AOC 4

Restoration Advisory Board Executive Summary #19 • August 10, 2000

## INTRODUCTION

Naval Air Station Fort Worth Joint Reserve Base (NAS Fort Worth JRB), formerly Carswell Air Force Base, is in the process of planning and conducting activities for the identification, remediation, and closure of contaminated sites at the base through the Installation Restoration Program (IRP). The IRP is the primary mechanism of the Department of Defense for environmental response actions on U.S. Air Force installations. IRP activities are governed by provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), and other applicable Federal and state regulations. The IRP at NAS Fort Worth JRB is being conducted through the combined efforts of the Air Force Center for Environmental Excellence (AFCEE) and the Air Force Base Conversion Agency (AFBCA).

## FINAL ANNUAL GROUNDWATER MONITORING REPORTING OBJECTIVES

The Final 1999 Annual Groundwater Monitoring Report for Area of Concern (AOC) 4 was completed under the direction of the Texas Natural Resource Conservation Commission (TNRCC) Petroleum Storage Tank (PST) Division requirements and guidance. AOC 4 is identified as the

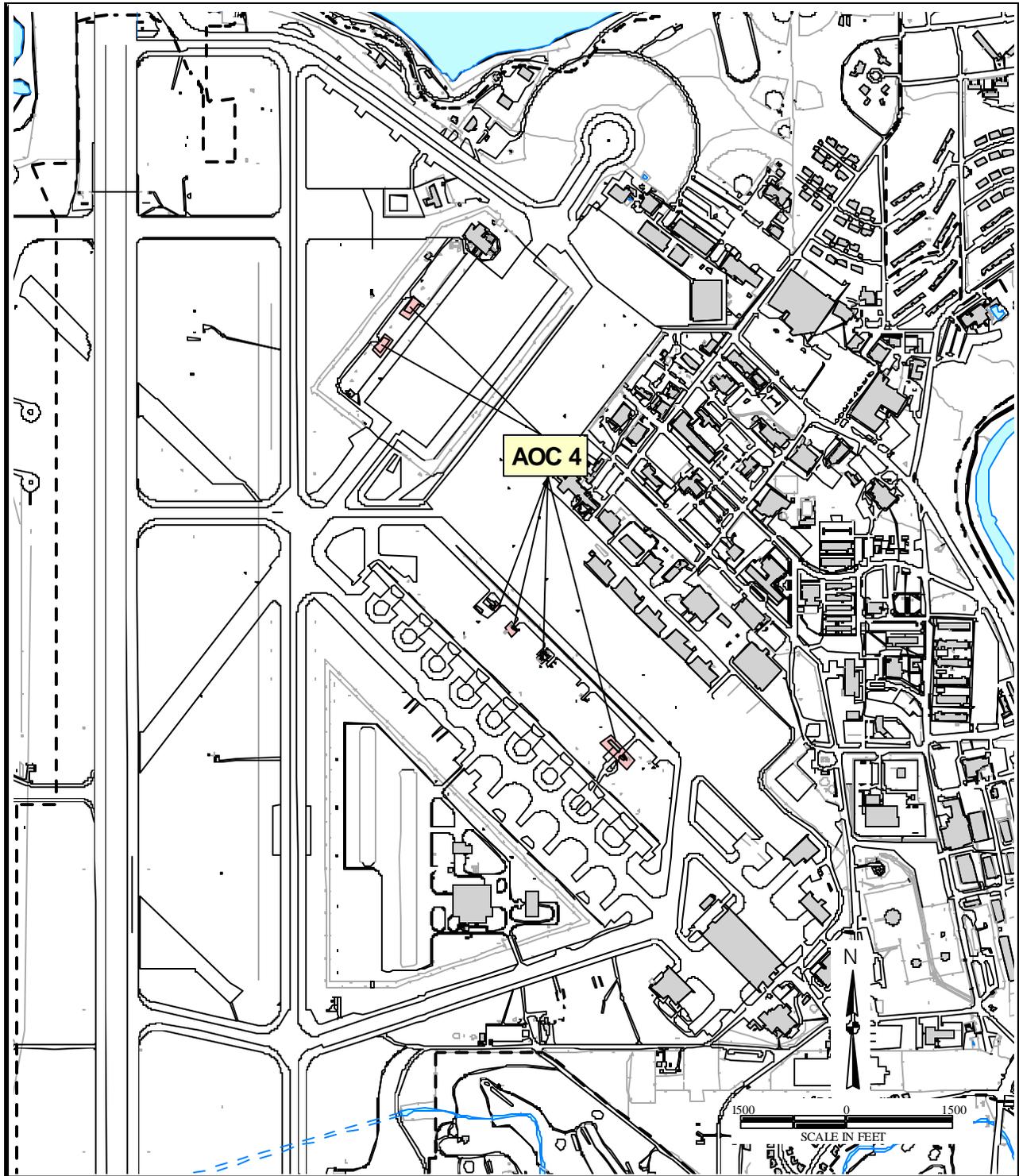
former Fuel Hydrant System (FHS) at NAS Fort Worth JRB, Texas, and is located along the west side of the South Ramp up to the west side of the Alert Apron. The former FHS was composed of five pumping stations along with approximately 20,000 feet of piping that connected each pumping station to the Bulk Fueling Storage Area. Each pumping station utilized six 25,000-gallon underground storage tanks (UST) for storage of Jet Propulsion Fuel No. 4 (JP-4). During the period from July 1994 until May 1995, the USTs were removed from the ground and the associated piping was abandoned in place. During the removal, the tank systems at four of the five stations were confirmed to be leaking. The stations were designated with Leaking Petroleum Storage Tank (LPST) site numbers 108711, 108712, 108713, and 104484 by the TNRCC. These four LPST sites comprising the former FHS were investigated and reported to the TNRCC as a single UST system. The USTs at the fifth station were not designated with an LPST number. The identification of the fifth station was associated with Building 4153.

A site investigation was performed at AOC 4 by HydroGeoLogic, Inc., in 1998. The site investigation resulted in the following three conclusions: 1) contaminants in the soil do not have a potential for future human exposure, 2) light non-aqueous petroleum liquids (LNAPL) exist in two monitoring wells

at the site, and 3) concentrations of contaminants in groundwater appear to be decreasing over time. The site investigation report recommended pursuit of closure using the Plan A Early Exit Criteria process. In order to meet the requirements for the process at AOC 4, all measurable LNAPL would have to be eliminated and groundwater data would have to illustrate contaminant stability.

The following activities were recommended and performed in 1999: 1) LNAPL was monitored and removed on a weekly basis from two wells that historically exhibited floating product and 2) groundwater was sampled over four quarters in 1999 from 10 monitoring wells at AOC 4. The results of the activities were reported in the Final 1999 Annual Groundwater Monitoring Report for AOC 4 submitted to the TNRCC in July 2000. Reporting of the annual monitoring activities meets the TNRCC regulatory guidance requirements for groundwater monitoring and reporting at LPST sites.

Results of the 1999 monitoring activities indicated that LNAPL continues to exist in measurable amounts in two wells at AOC 4, and groundwater concentrations have shown contaminant stabilization over the four quarters of sampling. Because of the presence of measurable LNAPL, closure under the Plan A Early Exit Criteria process was not possible at this time.



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 Project: AFC001-16BDA  
 Created: 07/12/99 jbelcher  
 Revised: 07/18/00 jb  
 Source: HydroGeoLogic, Inc—GIS Database



**Legend**

- NAS Fort Worth JRB Boundary
- Former Carswell AFB Boundary
- AOC 4 Area of Concern 4  
(Former Fuel Hydrant System)

**Figure 1**  
**Location of AOC 4**

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To pursue closure at AOC 4 using the Plan A Early Exit Criteria process, measurable LNAPL must be eliminated and groundwater must continue to show contaminant plume stability. Proposed activities for the year 2000 include continued LNAPL monitoring and recovery on a weekly basis and groundwater sampling on a semiannual

basis using a reduced number of monitoring wells. After 1 year of monitoring, the site will be evaluated for closure using the Plan A Early Exit Criteria Process. At that time either a site closure request will be submitted to the TNRCC or further action will be recommended.

**For More Information:**

*If you would like more information, please see our website at <http://www.afcee.brooks.af.mil/er/carswell/nasfw/> or contact Michael Dodyk, HQ AFCEE, at (817) 782-7167 or via e-mail at [Mike.Dodyk@fwh.afres.af.mil](mailto:Mike.Dodyk@fwh.afres.af.mil).*

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