

LHAAP-35B (37) – Former Chemical Laboratory Remedial Action Operations

Site History

The LHAAP-35B (37) site, the Former Chemical Laboratory, encompasses approximately 12.2 acres and is located in the north-central portion of LHAAP near the southwest corner of LHAAP-47 and in the northeast quadrant of the intersection of Avenue P and 51st Street. The laboratory was originally used to support production activities at LHAAP including research and testing of materials used in the production processes and quality assurance testing. A single waste rack sump was also located at the site.

Site Characteristics

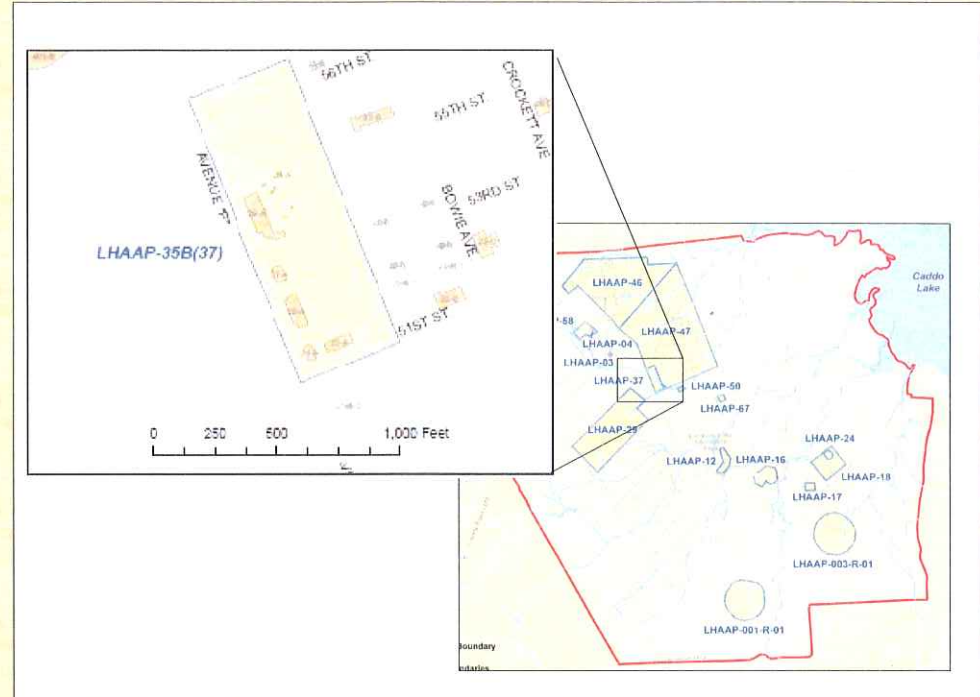
The site topography is relatively flat. The surface features at LHAAP-35B (37) include remnants of the concrete foundations and partial walls of the former administration buildings and the Chemical Laboratory (Building 29-A), and a mixture of asphalt-paved roads and parking areas, and a mixture of wooded and grassy vegetation-covered areas. The surface drainage flows into Goose Prairie Creek. The creek runs perpendicular to the western border of the site and then turns south through the east-central portion of the site and eventually flows into Caddo Lake.

Risk Assessment

A human health risk assessment (HHRA) and baseline ecological risk assessment (BERA) were conducted for LHAAP-35B (37) to determine current and future effects of contaminants on human health and the environment. The HHRA indicated that soil at the LHAAP-35B (37) site does not pose a risk to the environment or human health under an industrial exposure scenario for a future maintenance worker. However, groundwater present within the upper shallow zone posed an unacceptable cancer risk and non-cancer hazard to a future maintenance worker from hypothetical groundwater consumption. There is no groundwater contamination in the lower shallow groundwater zone or the intermediate zone. The BERA concluded that no unacceptable risk was present to the ecological receptors from the site soil and groundwater.

Chemicals of Concern

Various investigations have been conducted at LHAAP-35B (37) to evaluate the nature and extent of impacted soil and groundwater concluding that there was no significant contamination in soils, but the upper shallow groundwater zone contains volatile organic compounds including trichloroethylene (TCE), tetrachloroethene (PCE), and 1,1-dichloroethene (1,1-DCE).



LHAAP-35B (37) Location and Site Map

LHAAP-35B (37) – Former Chemical Laboratory (continued)

Remedial Action Operations

Remedial Action Objectives

The Remedial Action at LHAAP-35B (37) will protect human health and meet applicable or relevant and appropriate requirements (ARARs). There are no ecological risks at the LHAAP-35B (37) site. The RAOs for LHAAP-35B (37), consistent with the reasonably anticipated future use as a national wildlife refuge, are:

- Ensure protection of human health by preventing human exposure to the contaminated groundwater;
- Ensure protection of human health and the environment by preventing contaminated groundwater from migrating into nearby surface water; and,
- Ensure return of groundwater to its potential beneficial use as drinking water, wherever practicable.

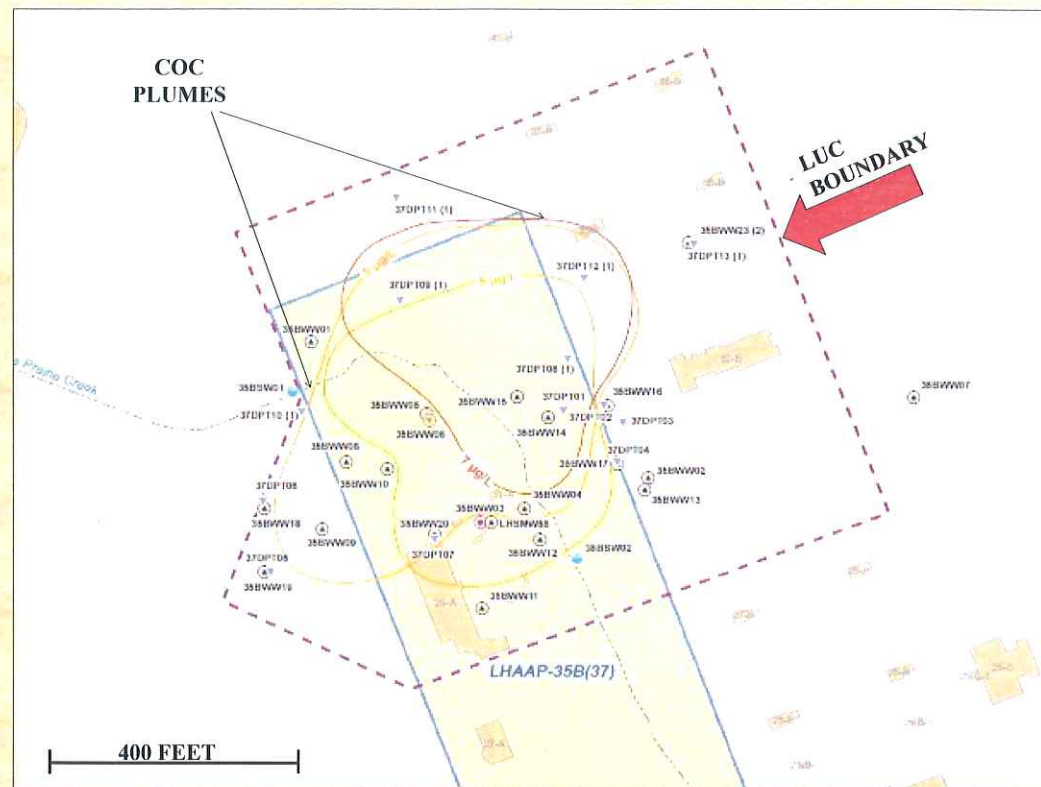
Land Use Control Boundary

One element of the remedial action at LHAAP-35B (37) is establishment of a land use control (LUC) area where withdrawal or use of groundwater is restricted to only environmental monitoring and testing. The LUC will remain in effect until the levels of COCs in groundwater and soil allow for unrestricted use and unlimited exposure (UUUE). Army, with TCEQ and EPA concurrence, has established a LUC area to restrict groundwater use at LHAAP-35B (37), completed a civil survey of that boundary and will record the LUC notification with the Harrison County Courthouse.

Monitored Natural Attenuation (MNA)

MNA at the LHAAP-35B (37) site is implemented to monitor COCs and ensure protection of human health and the environment. Performance monitoring to evaluate remedy effectiveness includes groundwater and surface water monitoring. The groundwater monitoring program is designed to evaluate and monitor natural

attenuation of COCs in shallow zone groundwater. The surface water monitoring program is designed to monitor potential migration of contaminated groundwater to surface water. The Army will ensure return of the aquifer conditions to those existing prior to the bio-plug demonstration study (discussed below), at which time groundwater monitoring for the MNA remedy will begin.



LHAAP-35B (37) Land Use Control Boundary

