

Site 5: Building 400 Grounds. The area southwest of the former Weapons Maintenance Building, Building 400, is the location of Site 5. Between 1961 and 1968, fuel-related products were reportedly disposed of on the grounds surrounding Building 400. These products may also have been used as a weed killer along a security fence southwest of Building 400. A Site Investigation included groundwater and soil sampling that investigated the potential for Volatile Organic Compounds, Semi Volatile Organic Compounds, and priority pollutant metals in the soils and groundwater. Using U.S. EPA guidance, Preliminary Remediation Goals were developed for the soil and groundwater to determine potential threats to human health and the environment from residual contamination. Analytes detected in groundwater were screened against the Ohio Standards for Public Water Supplies, and Preliminary Remediation Goals were developed for residential groundwater usage to identify contaminants of potential concern. The Site Investigation concluded previous waste handling activities might have contaminated the soils at Site 5, but not the groundwater. Volatile Organic Compounds, total petroleum hydrocarbons, and polynuclear aromatic hydrocarbons were found in the soils around the storage area and drum rack at Site 5. Polynuclear aromatic hydrocarbons were found above the Preliminary Remediation Goals for soil, and the potential for migration to groundwater was noted for polynuclear aromatic hydrocarbons and methylene chloride. Arsenic, beryllium, chromium, lead, mercury, nickel, and zinc were all found in one or more of the soil samples at concentrations exceeding background concentrations. Nevertheless, only arsenic and chromium exceeded the calculated Preliminary Remediation Goals for soil. In the groundwater samples, only thallium was found above Standards for Public Water Supplies values. No Volatile Organic Compounds or Semi Volatile Organic Compounds were found above Standards for Public Water Supplies values or Preliminary Remediation Goals.

The Remedial Investigation was conducted to confirm or deny results of the Site Investigation. One round of soil sampling and three rounds of groundwater sampling were conducted to further characterize the site and verify the Site Investigation findings. Remedial Investigation results determined there were no constituents present in soil at Site 5 above U.S. EPA Region IX Preliminary Remediation Goals. Groundwater samples collected during the Remedial Investigation were analyzed for Volatile Organic Compounds, Semi Volatile Organic Compounds, total petroleum hydrocarbons, and priority pollutant metals. Results were screened against U.S. EPA maximum contaminant levels and Region IX Preliminary Remediation Goals. Arsenic and trichloroethene were detected in the groundwater above Preliminary Remediation Goals at Site 5 during the first sampling event.

The Feasibility Study assessed how well the remedial alternatives would address potential ecological risk and meet the U.S. EPA evaluation criteria. The following alternatives were considered in the Feasibility Study:

- No Action
- Limited No-Action
- On Site Groundwater Treatment (Chemical Oxidation)
- Aboveground Groundwater Treatment

The Feasibility Study determined there was little threat to the environment from the contaminants due to the nature of the groundwater at the installation. To protect human health, the Feasibility Study recommended chemical oxidation of the groundwater, along with institutional controls. This remediation technique for groundwater treatment would reduce the toxicity and volume of trichloroethene, as well as control migration of the contaminants in the groundwater. Once treated, the groundwater would meet Applicable or Relevant Appropriate Requirements.

In light of technical evidence presented by the Base, recommendations in the Feasibility Study were reevaluated. One additional round of groundwater sampling was conducted to confirm the presence of trichloroethene in groundwater. Three temporary groundwater monitoring wells were installed, and sampled with two existing wells for Volatile Organic Compounds. Except for one monitoring well sample, the results from the groundwater sampling event indicated groundwater concentrations were non-detect. The remaining groundwater sample was above the detection limit of the analysis, but below the

reporting limit. The Ohio Air National Guard concluded No Further Action was warranted at Site 5 to protect human health and the environment. Ohio EPA concurred that No Further Action is warranted for Volatile Organic Compounds in shallow groundwater based upon the shallow groundwater analytical results and the following supporting items:

- There are no significant human or ecological receptors to shallow groundwater identified at Site 5.
- OHANG Base is supplied with potable water from the City of Mansfield.
- OHANG Base is to remain under lease from the United States Government until at least 2090.

Based on further investigations, OHANG's preferred alternative for Site 5 was No Further Action. Additional sampling conducted in 2003 confirmed there are no contaminants of potential concern in the Site 5 area, supporting Ohio Air National Guard's recommendation. The Ohio EPA concurrence with No Further Action at Site 5 is documented in the Final No Further Action Decision Document for IRP Site 5, dated April 2006.