FIRE TRUCK MAINTENANCE FACILITY

SS-28

Joint Base Andrews April 2022

BACKGROUND

Site SS-28 (formerly AOC 32) is located on the western portion of Joint Base Andrews (JBA) near the intersection of Arnold and South Dakota Avenues (Figure 1). SS-28 began as a combination of Building 1206, Solid Waste Management Unit 2 (SWMU-2), and SWMU-40. Building 1206 has been an active military gasoline service station since 1980 and was once a maintenance facility for fire trucks. It currently houses vehicles for JBA's executive driver's vehicle fleet. SS-28 is centered in the vicinity of Building 1206 and its two fuel islands. The site is covered with a mixture of concrete and asphalt pavements, unpaved manicured areas, and adjacent facilities.

The Building 1206 area formerly contained a 1,000-gallon fuel oil underground storage tank (UST), a 25,000-gallon gasoline UST, two hydraulic lifts, a 6,000-gallon diesel UST, a 15,000-gallon diesel UST, the SWMU-2 250-gallon waste oil aboveground storage tank, and the SWMU-40 hazardous waste storage area. SWMU-40 reportedly was used to temporarily store antifreeze, transmission fluid, and waste oil. All the facilities listed above have been removed and closed under the Maryland Oil Control Program (OCP), and contaminated soil was excavated and disposed of as required by the OCP at several facilities. Currently, the Building 1206 area contains a 20,000-gallon gasoline UST and 20,000-gallon diesel UST.

Contaminants were detected in groundwater during both the 2006 and 2007 Preliminary Assessments/Site Inspections (PAs/SIs), but this work did not completely characterize the nature and extent of the SS-28 contaminants. The 2013 Remedial Investigation (RI) identified trichloroethene (TCE), tetrachloroethene (PCE), 1,2-dichlorethane (1,2-DCA), carbon tetrachloride (CTC), chloroform, and benzene as contaminants of concern in groundwater that require remediation and detected various other volatile organic compounds (VOCs) from four potential sources areas at SS-28. The resulting contaminated groundwater plumes extend 3700 feet to the southeast and 3,000 feet to the east-southeast from the potential source areas beneath Building 1206, highly secure buildings, a fire station, airfield parking aprons, taxiways, the west flightline, and the grassy airfield. No soil or indoor air remediation requirements were identified.

The 2017 Feasibility Study (FS) for SS-28 identified and evaluated five potential remedial options for the VOC-contaminated groundwater at the site. Based on the comprehensive evaluation of the five alternatives, in-situ bioremediation, and in-situ chemical reduction along with land use controls was recommended to remediate the site.

CHALLENGES

The site extends approximately 55 acres beneath highly secure buildings and facilities, airfield aprons, and taxiways, and grassy airfield. Classified underground utilities are present, as well as many other unclassified but sensitive utilities.

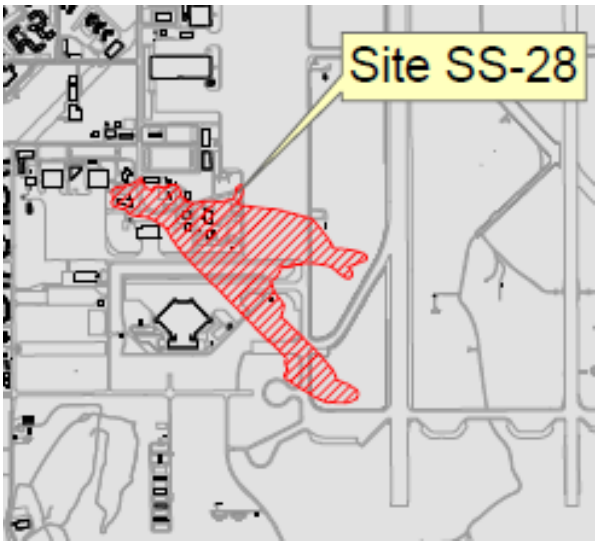

Figure: TCE Plume SS-28

Access to areas of the site require significant effort, including airfield construction waivers, wing-tip restriction, Notices to Airmen, and potential Presidential taxiway closures.

PERFORMANCE-BASED APPROACH

The RI was finalized in 2013. It characterized the nature and extent of a large, dilute, VOC contaminant plume, and the associated human health risk associated with the plume. The FS was completed in August 2017. The Proposed Plan (PP) for the recommended remedial action in the FS was completed in 2019. The Record of Decision (ROD) for SS-28 reached Draft-Final stage in 2020 before Perfluorinated compounds detected at the site stopped completion of the ROD. When completed, the ROD will formally attach the site FT-02 "Southern Plume" to the SS-28 remedial process. Land use controls will be used to limit human exposure to contaminants until the site attains unlimited use and unrestricted exposure status. The next action at SS-28 is under discussion between JBA and various federal and state regulators.

RISK DRIVERS

Contaminants: TCE, PCE, CTC, 1,2-DCA, chloroform, benzene, and other VOCs.

Impacted Media: Groundwater

Exposure Pathways Completed: Human & Potential Vapor Intrusion

Drainage: Piscataway Creek

Current Land Use/Surface Cover: Industrial/Airfield

Reasonably Anticipated Land Use: Industrial/Airfield

Relative Risk: Low