



**UNITED STATES AIR FORCE  
INSTALLATION RESTORATION PROGRAM  
KELLY AIR FORCE BASE  
SAN ANTONIO, TEXAS**

## **Draft Final Closure Plan**

### **Sites S-9, FC-2 and OT-1**

### **Zone 2 Solid Waste Management Units**

Prepared By IT/OHM Remediation Services Corp.  
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## **EXECUTIVE SUMMARY**

This **Closure Plan** outlines the regulatory basis for closure, closure activities, verification sampling, and post-closure activities to facilitate closure of Site S-9 (Solid Waste Management Unit [SWMU] 25), Site FC-2 (SWMU 27), Site OT-1 (Air Force Site No. SS039), Operable Unit (OU)-1C, OU-3T, OU-3L, OU-4B, and OU-5 in Zone 2 at Kelly Air Force Base (AFB), Texas. Sites S-9, FC-2, and OT-1 are listed in the Final Compliance Plan for Kelly AFB as SWMUs. OU-1C, OU-3T, OU-3L, OUAB, and OU-5 are identified in the Remedial Investigation/Feasibility Study (RI/FS) as Areas of Concern. These SWMUs and OUs will be closed in accordance with Texas Natural Resources Conservation Commission (TNRCC) Risk Reduction Standards (Title 30 Texas Administrative Code [TAC] Chapter 335 Subchapter S).

The Air Force Base Conversion Agency (AFBCA) is currently implementing a number of environmental restoration programs to prepare various Base facilities for reuse. The closure of these sites and operable units is a part of this effort.

Previous investigative focus has been on operable units, which were defined by nature of contamination. However, since issuance of the Final Compliance Plan, dated June 12, 1998, the focus has shifted to the Sites identified as requiring further action in the Compliance Plan. This Closure Plan addresses Sites S-9, OT-1, and FC-2 which are identified in the Closure Plan as sites requiring further action. Sites S-9, OT-1, and FC-2 contain numerous OUs. OU-1C, OU-3T, OU-3L, OUAB, and OU-5 fall outside of the sites identified in the Compliance Plan and are therefore addressed in this Closure Plan using the OU designations for ease of identification.

Groundwater and soil have been identified as the environmental media of concern within Zone 2. Groundwater is encountered at approximately 2 to 25 feet below ground surface (~gs) in Zone 2. As discussed

in Section 2.1 of this Closure Plan, contamination of groundwater is not addressed in this Closure Plan. Historical groundwater plume maps presented in the Basewide Remedial Assessment (CH<sub>2</sub>M Hill, 1998) indicate that the sites and areas of concern include in this Closure Plan have not impacted groundwater. This Closure Plan only addresses closure of areas within Zone 2 with vadose zone soil contamination. Soil samples collected from the vadose-zone will be analyzed for total and Synthetic Precipitation Leaching Procedure (SPLP) metals, volatile organic compounds (VOCs), and/or semivolatile organic compounds (SVOCs) to accurately assess the risk to human health and the environment posed by vadose-zone soil in Zone 2, and to demonstrate the attainment of clean-up to levels as required by TNRCC Risk Reduction Standard (RRS) 2 (30 TAC 335.554).

Contamination of soil surrounding Site FC-2 resulted from past use of the site as a fire control training area. Organic total petroleum hydrocarbon (TPH) contamination is present above TRNCC RRS 2 closure criteria and the extent has been largely defined. Site FC-2 has been identified in the Zone 2 RI/FS as a site that may require remedial action to meet TNRCC RRS 2 closure criteria. The approved remedy for Site FC-2 consists of the installation of Soil Vapor Extraction (SVE)/Bioventing wells. Prior to installation of the approved remedy, soil samples will be collected to evaluate the leachability of TPH. If TPH does not leach into the groundwater, TNRCC RRS 2 closure criteria will be met, no further remedial action will be required, and a closure report will be prepared.

Contamination of vadose-zone soil at Site S-9, Site OT-I, OU-IC, OU-3L, OU-3T, OUAB, and OU-5 may have resulted from on-going industrial activity within Zone 2. Inorganic concentrations above background exists at several locations in varying concentrations but do not follow an increasing or a decreasing trend either laterally or vertically. Most of the exceedances of beryllium, cadmium, chromium, arsenic, lead, manganese, nickel, mercury, and thallium concentrations are within the range of background variation for the general area. SPLP testing is proposed to show that these soil concentrations of inorganics do not leach above TNRCC RRS 2 closure criteria. If the SPLP testing shows that RRS 2 closure criteria have been met, a closure report will be generated.

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