



Hill Air Force Base, Utah

Long-Term Groundwater Monitoring Project

Final Report

Analytical Data Validation Report for the Summer 2007 Operable Unit 1 Groundwater Monitoring Point Sampling Round

Contract F42650-03-D-0002
Task Order 0019

January 2008

Executive Summary

ES.0.0.1 This report presents the results of the Summer 2007 Operable Unit (OU) 1 Groundwater Monitoring Point Sampling Round conducted at Hill Air Force Base (AFB). The sampling was performed as part of Hill AFB Contract Number F42650-03-D-0002, Task Order 0019. The objectives of the sampling round were to (1) collect groundwater samples to monitor groundwater contamination levels, (2) survey three slope inclinometers for evidence of slope movement, and (3) monitor landfill gas vents for organic vapors and combustible gases. Groundwater samples were obtained between May 9 and July 2, 2007 from the monitoring points identified in the *Final 2007 Basewide Monitoring and Maintenance Work Plan (Work Plan)* (CH2M HILL, 2007a). Sixty-eight of the 99 monitoring points identified in the *Work Plan* were sampled. The remaining 31 monitoring points were found to be dry, contained free product, did not contain sufficient water to collect a sample, or were abandoned. In addition, a quarterly groundwater sample collected from Monitoring Point U1-197 on February 26, 2007 is also included in this report. Monitoring Point U1-307 was scheduled to be sampled as part of the OU 1 Spring 2007 Groundwater Monitoring Point Sampling Round; however, this point was sampled as part of the OU 1 Summer Sampling Round and is included in this report.

ES.0.0.2 In addition to groundwater sampling, annual groundwater levels and light nonaqueous phase liquid (LNAPL) measurements were obtained as required by the *Operable Unit 1 Performance Standard Verification Report (PSVR)* (URS, 2007). Slope Inclinometers U1-762, U1-859, and U1-861 were measured on July 9, 2007 to monitor slope movement and assess the effects of groundwater remediation systems on slope stability. The slope inclinometer measurements were compared to the baseline readings taken after the slope inclinometers were installed to calculate the amount and direction of movement. Significant slope movement was not observed. The ambient air near the OU 1 landfill gas vents was monitored on July 10, 2007 to evaluate the presence of explosive atmospheres or organic vapors. The gas levels were found to be less than 5 parts per million for the organic vapor meter and less than the lower explosive limit for methane on the combustible gas indicator.

ES.0.0.3 Analytical data collected as part of the Summer 2007 OU 1 Groundwater Monitoring Point Sampling Round were subjected to a cursory review to identify potential outliers and/or data anomalies. Several analytes were detected during the Summer 2007 Sampling Round at concentrations outside their historical concentration range. A large fraction of analytes were detected below their historical minimum concentrations and are mostly associated with trace values (i.e., concentrations below the reporting limit but above the method detection limit). The *Basewide Quality Assurance Project Plan (BQAPP)* (MWH, 2003) completeness goal of 95 percent was met for all analytes. The quality of the laboratory program and field procedures is sufficient to meet the project data quality objectives.