To meet Department of Defense requirements and to support the U.S. Army Sustainable Range Program, the Army is conducting assessments to determine whether a release, or substantial threat of release, of munitions constituents of concern (MCOC) from the operational footprint to an off-range area creates a potentially unacceptable risk to human health or the environment. The initial Operational Range Assessment Program (ORAP) Phase I Qualitative Assessment (herein referred to as Phase I) evaluated existing information to assess whether (a) a potential MCOC source exists within the operational footprint, (b) there is a potential MCOC migration mechanism, and (c) human or sensitive ecological receptors are present. For the operational footprint having a potentially complete source-receptor pathway, the Army conducted an ORAP Phase II Quantitative Assessment (herein referred to as Phase II). This report presents the results of the Phase II for the Anniston Army Depot, Alabama (ANAD). EA Engineering, Science, and Technology, Inc. (EA) and ARCADIS-US, Inc. (ARCADIS) conducted this evaluation under contract W9128F-10-D-0056 with U.S. Army Corps of Engineers – Baltimore District in support of the U.S. Army Environmental Command.

The ANAD is an approximately 15,232-acre installation in northeast Alabama. The 2008 Phase I for the ANAD initially evaluated seven operational ranges covering 90.43 acres. These operational ranges are used for open burning/open detonation (OBOD) of munitions, helicopter landings, equipment testing, small arms firing, and large caliber military munitions firing. The OBOD range is operating under a Resource Conservation and Recovery Act (RCRA) permit and was therefore programmatically excluded from ORAP. As such, six ranges covering 47.04 acres of operational range area were assessed as part of ORAP. The Phase I classified three of the six ranges as Inconclusive and the remainder as Unlikely. The Phase I Inconclusive ranges are all located along the northern installation boundary. The two Inconclusive ranges located in the northeastern corner of the installation (ANAD-1 and ANAD-2) both contain active and historic firing ranges with one or more firing points. Munitions currently fired at ANAD-1 and ANAD-2 are directed across a stream into a natural cut bank created by stream erosion. ANAD-1 is encompassed by ANAD-2, and the two ranges are treated as one for the purposes of this study. The Phase I Inconclusive range located in the northwest area of the installation (ANAD-3) is considered operational but has not been actively used since the early 1980s.

The purpose of the Phase II was to gather additional data to resolve the data gaps that led to the Inconclusive categorization of the three ranges during the Phase I.

A summary of the Phase II assessment follows:

The weight-of-evidence evaluation completed for the ANAD Phase II assessment confirms that, for the conditions evaluated in 2011 and 2012, there is no unacceptable risk identified to off-range human and/or ecological receptors from potential MCOC sources associated with the Phase I Inconclusive operational ranges ANAD-1, ANAD-2, and ANAD-3. This conclusion was reached based on the lack of MCOC source at ANAD-3 and the analysis of surface water and sediment samples collected downstream of the of ANAD-1 and ANAD-2 on the adjacent Army National Guard Installation, Fort McClellan Pelham Range.

ANAD-1, ANAD-2, and ANAD-3 have been re-categorized as Unlikely; the Phase II findings for the ANAD-1, ANAD-2, and ANAD-3 are summarized in Figure ES-1. The ranges will be placed in a review cycle to periodically re-evaluate whether future changes in conditions pose unacceptable risk to off-range human or ecological receptors. Proper best management practices at ANAD-1 and ANAD-2 to limit direct deposition of munitions in Rock Creek should be implemented with any future changes to the
operational ranges to ensure no future MCOC migration from ANAD-1 and ANAD-2 to off-installation receptors.