Geophysical Prove-Outs for Munitions Response Projects

November 2004

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EXECUTIVE SUMMARY

Geophysical systems are integral to munitions response efforts because they detect surface and subsurface anomalies such as unexploded ordnance and discarded military munitions during geophysical surveys at munition response sites. Detection of munitions and explosives of concern is critical to the success of the overall munitions response effort because items that are not detected will not be removed.

Before conducting a geophysical survey of an entire munitions response site, a site-specific geophysical prove-out (GPO) is conducted to test, evaluate, and demonstrate these geophysical systems. Information collected during the prove-out is analyzed and used to select or confirm the selection of a geophysical system that can meet the performance requirements established for the geophysical survey.

This document introduces the purpose and scope of GPOs, provides examples of goals and objectives associated with GPOs, and presents detailed information needed to understand and evaluate the design, construction, implementation and reporting of GPOs. This document also communicates the expectations of state regulators to those designing, executing, and reporting GPOs. Because not everyone who will need or want to evaluate a GPO has a background in geophysics, this document includes a background chapter on geophysical surveys as conducted during the course of munitions response actions.