



## Memorandum

Risk Reduction & Environmental Stewardship (RRES) -  
Remediation Services (RS), MS M992

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**SUBJECT: ECOLOGICAL RISK SCREENING FOR POTENTIAL RELEASE SITES (PRSs)  
10-003 (A-O) and 10-007**

The Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) report for PRSs 10-003 (a-o) and 10-007 identified several non-radiological chemicals of potential concern (COPCs). These included silver, several semi-volatile organic chemicals (e.g., phthalates, naphthalene), several volatile organic chemicals (e.g., trimethylbenzenes, xylenes, ethylbenzene, and dichloroethene), and some high explosives (e.g., HMX, dinitrotoluene, nitrotoluene). All of the COPCs were detected in the subsurface (approximately 4 ft to 42 ft below ground surface [bgs]). Most of the COPCs were detected at depths greater than 5 ft bgs, thereby resulting in no complete pathways to ecological receptors. Although bis (2-ethylhexyl) phthalate and naphthalene exceeded the ecological screening levels (ESLs) for the robin (the receptor with the lowest ESLs) by less than a factor of 10, the detected concentrations were at approximately 42 ft and 12 ft, respectively, and are therefore not available to the robin.

The COPCs detected at less than 5 ft included diethyl phthalate, 2,4-dinitrotoluene, 2,6-dinitrotoluene, HMX, and m-nitrotoluene; detected in only one sample each. A comparison of these COPCs with their respective ESLs found that the detected concentrations were less than the minimum ESL by a factor of three to more than an order of magnitude (there are no ESLs for the minimum ESL for diethyl phthalate, so the ESLs for dimethyl phthalate were used as surrogates). Silver, which was detected above background in samples collected from approximately 8 ft to 39 ft bgs, has the plant as its most sensitive receptor (i.e., has the minimum ESL). Visual observations of the vegetation in and around the PRSs found a healthy and thriving plant community and therefore do not indicate any potential adverse effects from subsurface silver (all other ESLs were greater than the maximum detected silver concentration).

Based on an assessment of the RFI data, there are no potential adverse ecological effects from the COPCs present at PRSs 10-003 (a-o) and 10-007 because either there are no complete pathways to receptors or the detected concentrations are less than ESLs.

RM/dv

