

2012 Implementation of Subsoil SAR Guidelines into the Alberta Environment Subsoil Salinity Tool (SST)

The overall objective of this project is to implement risk-based SAR (sodium adsorption ratio) and sulfate guideline algorithms into the Alberta Environment and Sustainable Resource Development (ESRD) Subsoil Salinity Tool (SST). A brief description of the importance and need for subsoil SAR and sulfate guidelines is provided in the two sections below, followed by a general description of the Subsoil Salinity Tool. Since salt guidelines tend to be complex and involve contaminant transport modelling, the implementation of algorithms into a software tool is necessary to expand the reach and application of this research project to other stakeholders and beneficiaries.

By implementing SAR and sulfate guidelines into a standardized tool, the knowledge gained during this research project can be disseminated in a very practical manner to environmental consultants, government agencies, and oil and gas companies. This

will allow risk-based remediation guidelines to be developed more rapidly, and accelerate and facilitate the SAR and sulfate assessment and remediation process.