

Case Study: Obtaining a Remediation Certificate at a Brownfield Site using an Iterative, Multifaceted Remedial Approach

OVERVIEW

Site: An active manufacturing facility in Southern Alberta

Contaminant(s): BTEX / F1-F2

Subsurface Material: Fine grained (silty clay)

Contaminant Location: Saturated soils and groundwater

Remediation Criteria: Site Specific - Alberta Tier 2 Criteria



- OBJECTIVES & CHALLENGES**
- Complete remediation to Alberta Tier 2 Criteria within two years
 - Minimize disruptions at the active facility
 - Deal with a contaminant 'hot spot'

- FIELD PROGRAM**
- An iterative, multifaceted approach to remediation.
 - Soil and groundwater sampling conducted throughout the remedial program to optimize the remedial plan
 - The technologies used were:
 1. Environmental Fracturing
 2. Surfactant Treatment
 3. Permeation Injection of Chemical Oxidants
 4. Soil Excavation
 5. Groundwater Treatment Canisters
 6. Oxygen Diffusers



- TECHNICAL EVALUATION**
- The soil and groundwater were remediated to below the Site Specific Tier 2 Criteria in just over two years
 - A Remediation Certificate was issued for the site in 2014

