

## Soil Sterilant Remediation at Utility Sites

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From the 1960s to the mid-1990s soil sterilants, primarily bromacil and tebuthiuron, were used to control vegetation at critical utility infrastructure sites such as electric substations and natural gas receipt, gate and compressor stations. Environmental site assessments completed at the majority of sites that have reached the end of their useful life that were operational during the period sterilants were used have revealed concentrations of soil sterilants in soil and groundwater that exceed the Alberta Tier 1 Soil and Groundwater Remediation Guidelines.

Soil sterilants are the main driver for remediation costs at utility sites where they were used. New solutions to assess and remediate sites are being pursued to meet required regulatory outcomes while reducing remediation costs and soil sent to landfill.

The presentation will provide case studies from the perspective of natural gas and electrical utilities of the past and present remedial and risk management approaches, discuss the increasing use of site-specific risk assessments, and possible future options for managing the remediation of these sites. The presentation will also discuss ATCO's participation in InnoTech Alberta's Sterilant Research Program, a government and industry collaborative effort to improve delineation, risk-based approaches, and remediation of sterilant impacted sites.

### Monica Brightwell

Monica Brightwell is a Senior Environmental Advisor with the Environment and Quality Group at ATCO Utilities, supporting natural gas and electric utility operations in Alberta. Monica has over 20 years of experience in reclamation, remediation and site assessment and recently in gas migration, well integrity and well remedial repair.

Monica worked in environmental consulting prior to joining ATCO in 2016

### Jason Pentland

Jason Pentland is a Senior Engineer with the Environment and Quality Group at ATCO Utilities, supporting natural gas and electric utility operations in Alberta and north of 60. Jason has over 20 years of experience in the geo-environmental, site assessment and remediation field having worked for the Government of Alberta and in environmental consulting prior to joining ATCO in 2018.