



Integrating Indigenous Business Strengths into Remote-Site Remediation: Lessons from one of Canada's largest remediation projects.

The Faro Mine Remediation Project in Yukon, Canada, is one of the largest and most technically complex abandoned mine clean-up efforts in the country, with an estimated remediation cost exceeding \$2 billion. The 25 km² site is located in a remote subarctic setting with limited road access, short construction seasons, and extreme weather events, all of which strongly influence how remediation and reclamation are planned and executed. The site contains extensive mine-impacted soils, waste rock, and tailings that pose ongoing risks to surface water, groundwater, and downstream ecosystems.

As owner of last resort, the Government of Canada funds the remediation program, with Parsons serving as Construction Manager and Care & Maintenance contractor. The project provides a useful case study of how remote location constraints and socio-economic objectives can be integrated with technical remediation requirements to deliver value on multiple client objectives.

Key technical elements include stabilization and immobilization of contaminated soils and mine wastes, construction of engineered covers and encapsulation systems to limit infiltration and contaminant migration, and regrading and recontouring of large waste facilities to improve physical stability. A comprehensive environmental monitoring program (surface water, groundwater, soil, geotechnical) underpins an adaptive management framework that triggers "urgent works" when data indicate changing environmental conditions. This is particularly important in a remote northern environment where climate-driven hydrologic variability and access limitations can rapidly affect risk.

This paper presents the Faro Mine as a remote site remediation case study that illustrates (1) how logistical constraints in isolated northern environments shape the design and sequencing of reclamation activities. (2) how partnering with Indigenous businesses generates significant added value for such projects.

Situated within the traditional territory of the Kaska Dena, where the site is historically known as Tse Zul and central to the subsistence practices of Ross River Dena Council members, the project embeds a socioeconomic program as a core component rather than an ancillary benefit. By integrating Indigenous knowledge, local capacity, and northern business expertise into remediation delivery, the project demonstrates how remote Indigenous enterprises strengthen supply chain resilience, enhance cultural and environmental stewardship, and contribute to long term community based economic outcomes—ultimately adding value alongside the project's technical remediation objectives.

Robert Yeomans Parsons

Robert is a socio-economic development leader with a passion for advancing sustainable growth in Canada's North. Currently serving as Chair of the Governing Council for the Centre for Northern Innovation in Mining (CNIM) and managing Parsons office in Whitehorse, he work at the intersection of industry, education, and community. His 26-year career in Canada's far north has focused on building partnerships that balance economic opportunity with environmental responsibility. His involvement in urgent remediation projects at Faro mine strengthen Indigenous participation in northern construction and mining to ensure that local communities benefit from training, employment, and procurement opportunities. With experience in socio-economic assessment, communications, and project management, he brings a collaborative approach to resource development that supports the regional workforce and fosters local innovation.

Cynthia Dick Tu'lindini Fuel

Cynthia Dick has served as General Manager of Tu-Lidlini Energy Ltd. since May 2023, leading fuel delivery, expediting, and logistics operations throughout the Ross River Dena Council's traditional

territory in Yukon. Under her leadership, Tu-Lidlini provides reliable bulk fuel and transportation services to remote sites and industry partners, operating in some of the North's most challenging environments. Cynthia is focused on building strong partnerships, strengthening operational performance, and advancing sustainable Indigenous economic development. She is committed to ensuring Tu-Lidlini remains a trusted service provider while contributing to long-term economic stability and opportunity within the Ross River Dena Council community.

Cassia Jekesta Dena Cho Environmental

Cassia is the Manager of Operations, co-manager, for Dena Cho Environmental LP. She holds a degree in Natural Resource Science from Thompson River University and brings over 10 years of experience in the environmental field. Cassia is a Liard First Nation Kaska member with Tahltan ancestry and has worked with Dena Cho since 2021. Cassia brings a community-based perspective to mining, exploration, and remediation projects and applies technical support, project management, and continuously looks for capacity and community training opportunities.

Cassia has led many environmental monitoring programs that range from surface water sampling, wildlife surveys, revegetation: seed collection and tree planting, invasive species management, and environmental assessment. Cassia has extensive experience working within Kaska Dena Territory.