



Mining Waste to Value in Thompson, Manitoba

Darryll Champagne, KBL Projects Ltd

This proposed presentation is an overview of the planning process and execution of a large scale mine site copper pond decommissioning project over a multi-year period spanning 2021 to 2026. The key objective of the decommissioning plan is to reclaim approximately ~72,000 wet short tons (WST) of copper (Cu) precipitate from No. 5 & 6 Copper Ponds at the site. KBL Projects Ltd. is the Prime Contractor onsite for all Environmental, Procurement and Contract Management (EPCM) requirements and this presentation will describe how this innovative project was developed, and then executed in the field. We believe the process and chemical treatment involved is one of the first of its kind to treat a former waste pond and deliver value to a site that was formerly considered an owner liability.

As Prime Contractor of the multi-year project, KBL provides filtrate treatment of acid generating wastewater whilst reclaiming Ni precipitate through our filtration processes. Additionally, KBL performs all extraction activities to help facilitate the physical removal of Cu precipitate from each respective Pond. Once Cu precipitate is extracted from the Pond(s), KBL neutralizes the acidic precipitate to appropriate pH levels whereas the Cu precipitate is then processed into 1,300 kg bulk capacity bags. Once bagged and processed, the final Cu precipitate product is loaded onto freight trucks for offsite transport destined to respective s (learnings/continuous improvement) throughout the reclamation processes continue to showcase favorable results in higher Cu % assays as precipitate are processed, thereby highlighting a sizeable amount of Cu reclaimed within our final processed product. These reclamation efforts provide a financial return to our client(s) for a waste product that was just sitting idle in holding ponds, year over year, and continually thought of nothing more than an environmental risk and financial liability. Through these reclamation efforts, KBL Projects continues to capitalize on waste to value opportunities for

our client at the site. When it comes to expertise at KBL Projects Ltd., it requires a large team to pull off such a project of this complexity & magnitude. Fortunately, I have had the pleasure of being apart of this project since inception and am looking forward to the many months ahead of reclaiming waste and returning value to my client(s).

This presentation will provide conference attendees with an overview of the project, the process involved in treating mine waste pond water, excavating, and finally processing the sludge to turn what was once considered a client waste liability into an asset. It will also highlight a few challenges and lessons learned working in a northern mining operation in a hazardous environment.

Darryll Champagne

Mr. Champagne started with the company in 2005 and has over 19 years of experience in the environmental industry, specializing in landfill development, site operation and closures, waste management, mine rehabilitation and site rehabilitation. He has brought great value to the team with his excellent managerial, financial, and organizational abilities.

At onset, Darryll quickly excelled from his role as a Project Coordinator to Project Manager and ultimately Senior Project Manager thereby overseeing multiple project sites that had on average, ~110 personnel and ~70 pieces of heavy iron in total within our Landfill Development Program between the years of 2009 – 2014.

Fast forward to today, Mr. Champagne is the Regional Manager of Manitoba overseeing a core managerial team of ~14 people & ~90-120 field personnel who perform projects all over Manitoba, Saskatchewan, and Ontario.