



# The Pine Point Project



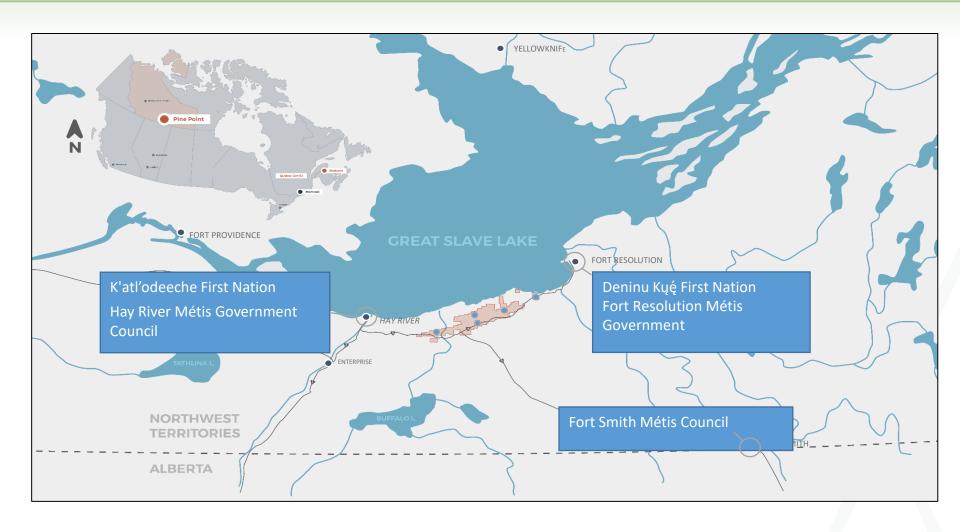


- Pine Point Mining Limited (PPML) is a wholly owned subsidiary of Osisko Metals (TSX V: OM) and was acquired from Darnley Bay Resources in February 2018.
- PPML is proposing to build a zinc/lead mine on the site of the old Cominco Pine Point Mine.
- This presentation describes what the proposed future mine will be like and asks for your input into the project and the environmental assessment process.

## **Local Communities**







# Google Maps Air Photo View





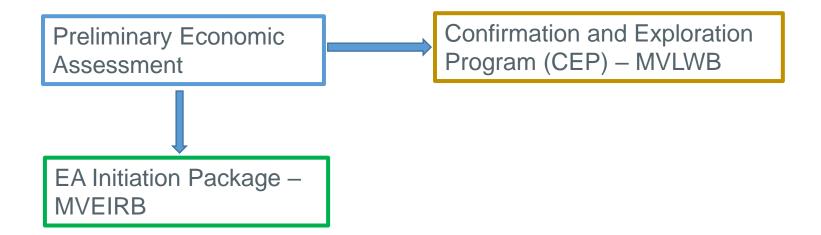


**Brownfield Site**: Plan is to use the previously disturbed areas as much as possible: roads, pads, waste rock dumps, cut lines.

## **Project Permitting**







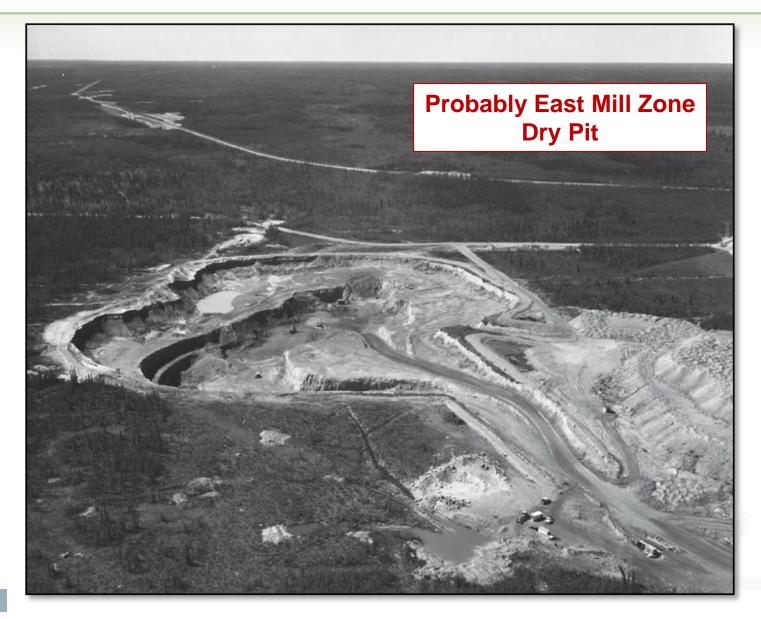
Submission of the Environmental Assessment (EA) Initiation Package to the Review Board was the first step in beginning the EA process for the proposed future mine.

This presentation will review the Mining and Milling project that was described in the EA Initiation Package.

# Cominco's Open Pit Mines







### **Environmental Studies to date**





Data about the environment has been collected for many years.

- Older published information includes:
  - Geochemical characterization
  - Climate data (temperature, rainfall, snowfall, wind)
  - Air quality and noise
  - Groundwater quality and quantity
  - Surface water quality and quantity
  - Fish and fish habitat
  - Soils
  - Vegetation
  - Wildlife
  - Birds



- Installation and operation of a meteorological station at the old Pine Point Mine Site
- Surface water quality
- Fish and fish habitat in the old pits and drainage ditches
- Vegetation and soils
- Air quality



## **Engagement to Date**





- Engagement has been focused on building relationships and communicating re: Project development through meetings, calls, mail
- Project engagement transitioned from Darnley Bay (2016-2017) to PPML (2017); Osisko Metals acquired PPML and has continued engagement and is aware of the issues/concerns previously raised and will consider them moving forward
- Most involved to date include DKFN. KFN, NWTMN, the Town of Hay River and Hamlet of Fort Resolution
- We have been engaging with the community leadership and followed their direction on preferred method of engagement

#### Indigenous Groups Prioritized for Involvement

#### **Deninu Kue First Nation** Katl'odeeche First Nation **NWT Metis Nation**

- Fort Resolution Metis Council
- Hay River Metis Council
- Fort Smith Metis Council

#### Other Interested Parties

- Cabin Owners
- Timberworks Inc.
- Teck Metals
- Avalon Advanced Metals

#### Other Indigenous Groups with an Interest in the Project

- ■West Point First Nation
- Salt River First Nation
- ■Smith's Landing First Nation
- Yellowknives Dene First Nation
- Lutsel K'e Dene First Nation North Slave Metis Alliance
- - Schools (Hay River and Fort
  - ■Deh Cho Land Use Planning
  - NWT and Nunavut Chamber of
  - Government of the Northwest Territories

  - MVLWB

Other Parties Informed Outside the Formal Engagement Plan

- Business Owners (Hay River and Fort Resolution)
- ■Town of Hay River
- Hamlet of Fort Resolution
- City of Yellowknife
- Resolution)
- Committee
- Mines
- MVEIRB

#### PEA





- Preliminary Economic Assessment (PEA) completed in 2020 (See News Release: June 15th, 2020)
  - 10 years of production at up to 11,250 tonnes per day treatment rate
  - Exploration and Delineation Drilling targets can extend mine life
  - Build a new plant on the site of the old plant.
  - Truck the zinc/lead concentrate to rail siding at Hay River
  - Manage ground water by putting in old pits or reinjecting back underground
- Pine Point Zinc concentrate is one of the cleanest concentrates in the world
  - Metal buyers and smelters want Pine Point concentrate to blend down impurities from other mines going to their smelters

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# Suggestions from earlier engagement





- Previous suggestions and concerns raised by community members
- ✓ use pits for waste rock storage and disposal
- use sump pumps in pits instead of perimeter wells (using both options)
- use a liner in the tailings pits
- use an upgradient freeze wall in Cluster Pit area (using grouting instead of freeze wall for open pits)
- use grouting at open pits
- ✓ use the old Cominco system for the supply of freshwater from lake to camp (the T-37 Road)
- ✓ use the previous water supply line from the lake
- ✓ decant water from in-pit tailings storage areas or move water from pit to
  pit if fines in tailings plug pit wall pores
- cap and seal all holes (this is current practice)
- plug the problematic former Cominco open well at W-85 with H2S
- ✓ avoid surface discharge of groundwater
- ✓ avoid Sulphur Creek as a receiving site for withdrawn groundwater.
- avoid development near Buffalo River as caribou overwinter here

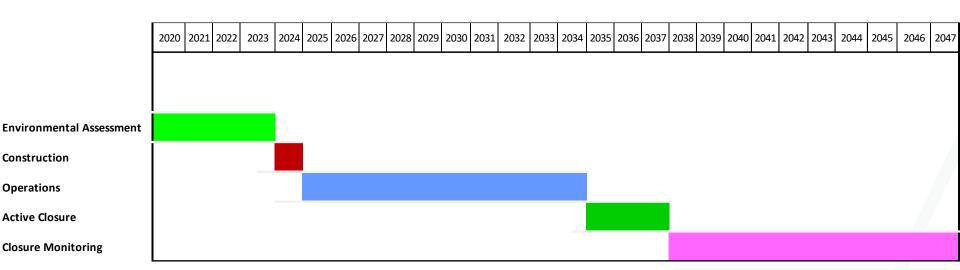
widen the shoulders of the highway

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# **Project Overall Timeline**





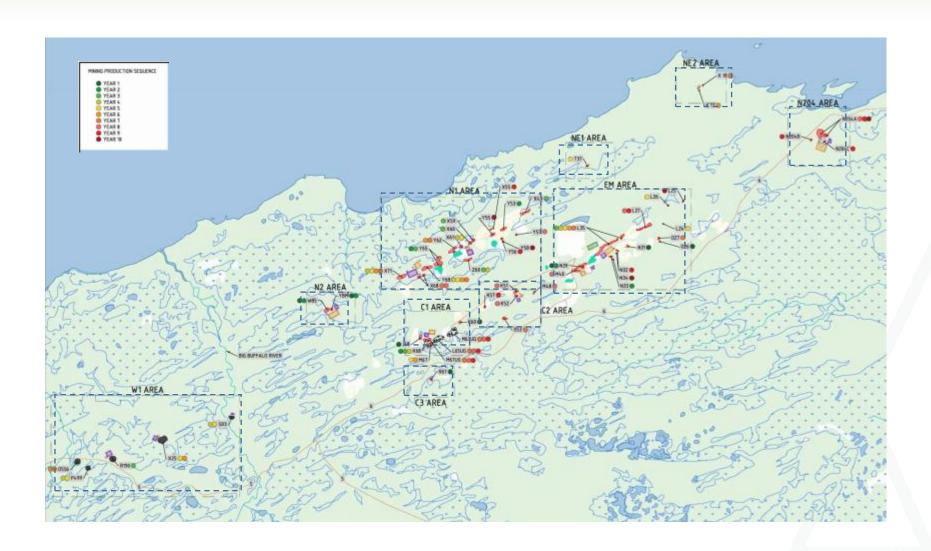


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# Mining Clusters







# **OP Groundwater Management**





- A ring of up to 30 dewatering wells surrounding each pit (some pits will be dry and will not require dewatering wells)
- Water may be placed in a nearby pit, far enough away so that the water does not return to the original pit while mining is underway

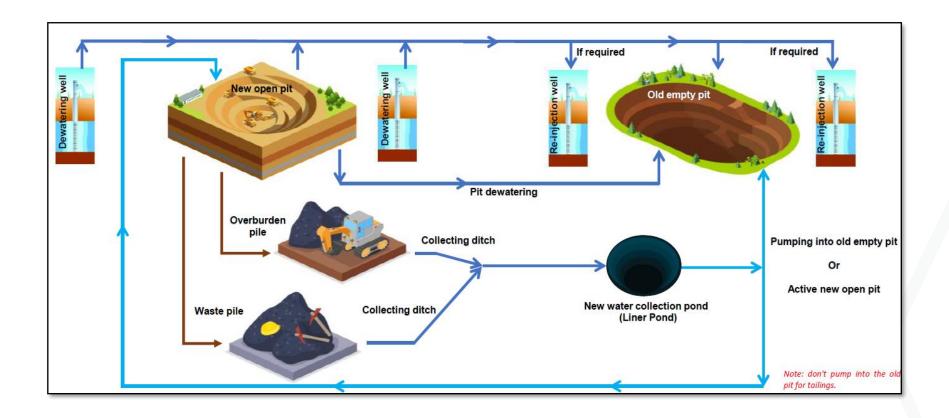
OR

 The water may be reinjected back to its underground source using reinjection wells where a pit is too far away

# Pit Dewatering & Waste Rock Stockpile Water Management



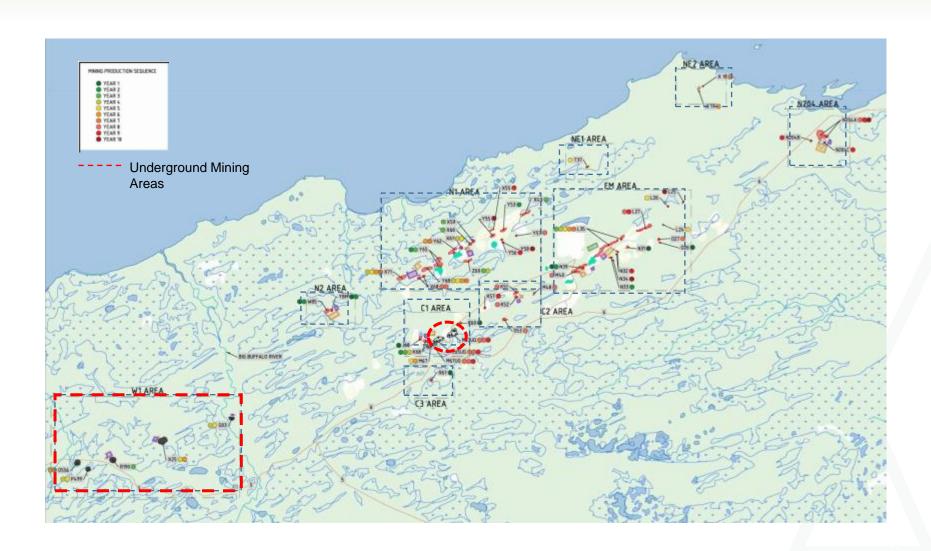




# Mining Clusters



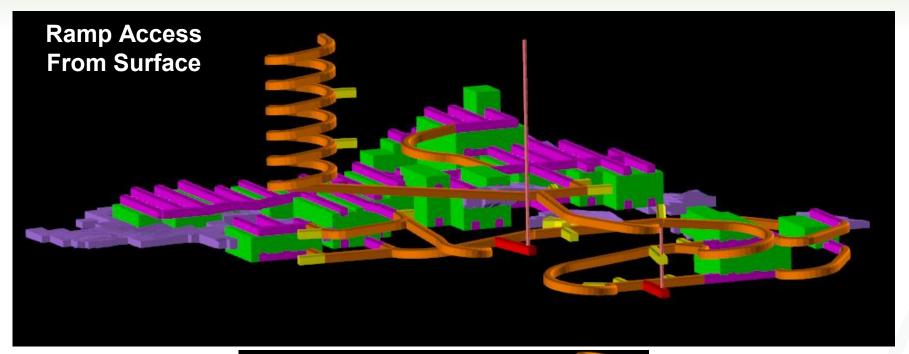


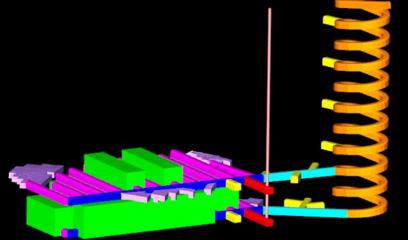


# **UG Preliminary Designs**







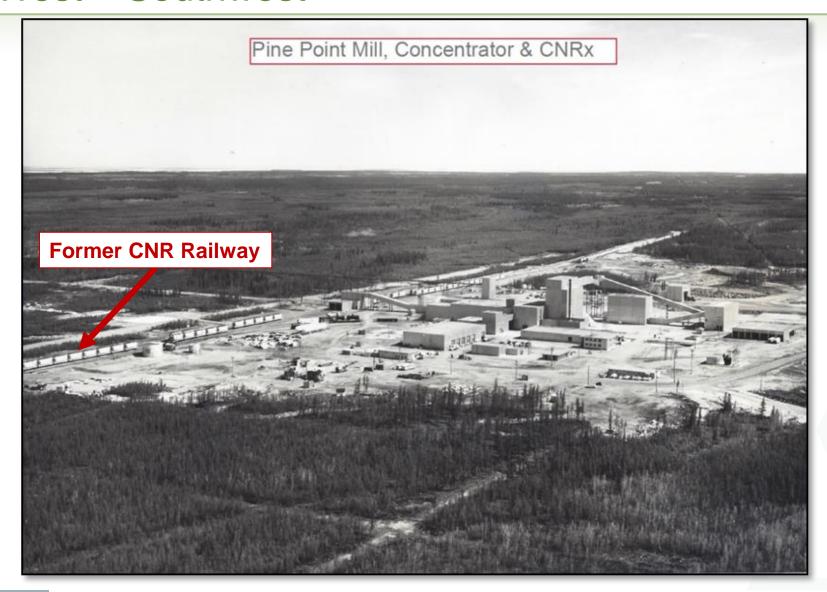


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# Cominco's Mill Site Looking West – Southwest



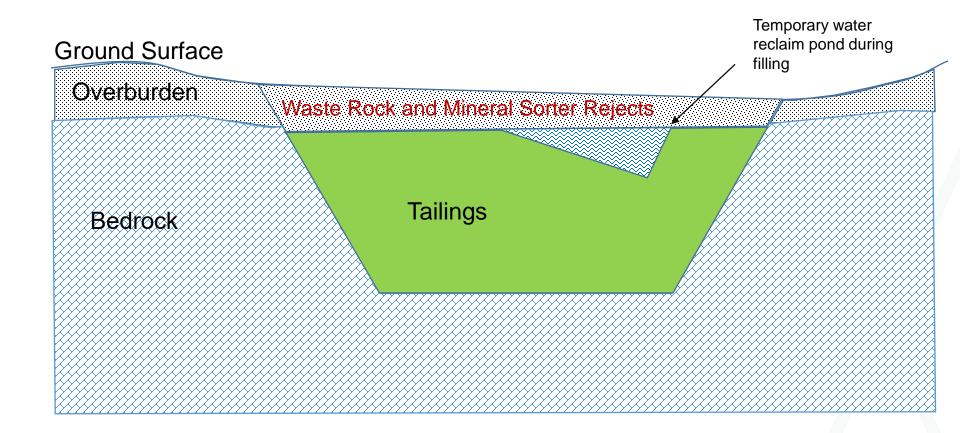




# Tailings Deposition Area in Old Pit







### Workforce





- Local workforce as much as possible. Total of 450 employees during operations and average of 230 for construction.
- Centralized camp rather than people commuting because of 12 hour shifts.
- Shift rotations were not finalized during PEA. A number of different rotation options will be considered for the feasibility study.
- Opportunities will exist for local employment and entrepreneurial contracting for further development of community capacities.

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#### Closure





- Brownfield sites will be returned to same condition that they are currently in.
- Greenfield areas will be returned to similar ecologically productive state as present.
- Progressive reclamation details will be developed further during Environmental Assessment and will be ongoing during operations
  - Several old pits will be used to store tailings and some waste rock (the non-mineralized rock we mine)
  - Above ground storage piles for overburden and waste rock will be re-sloped and dust mitigation measures will be applied. Runoff will be directed back to the pits.
- Closure plan to be developed with regulators and communities during the Environmental Assessment and Permitting.

## Over to you!





- We would be happy to answer your questions and we will take note of all your concerns raised in this meeting.
- Board staff will be using your comments and concerns to develop the Terms of Reference for the Environmental Assessment.
- Thank You for attending and listening to our Project update.

# Questions....







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