



PRAIRIE CREEK MINE PROJECT DESCRIPTION



CANADIAN ZINC CORPORATION

President and CEO – John Kearney
COO and VP Exploration – Alan Taylor

Here today:

VP Environment and Permitting – Dave Harpley
Manager of Northern Development – Wilbert Antoine
Operations Facilitator – Chris Reeves

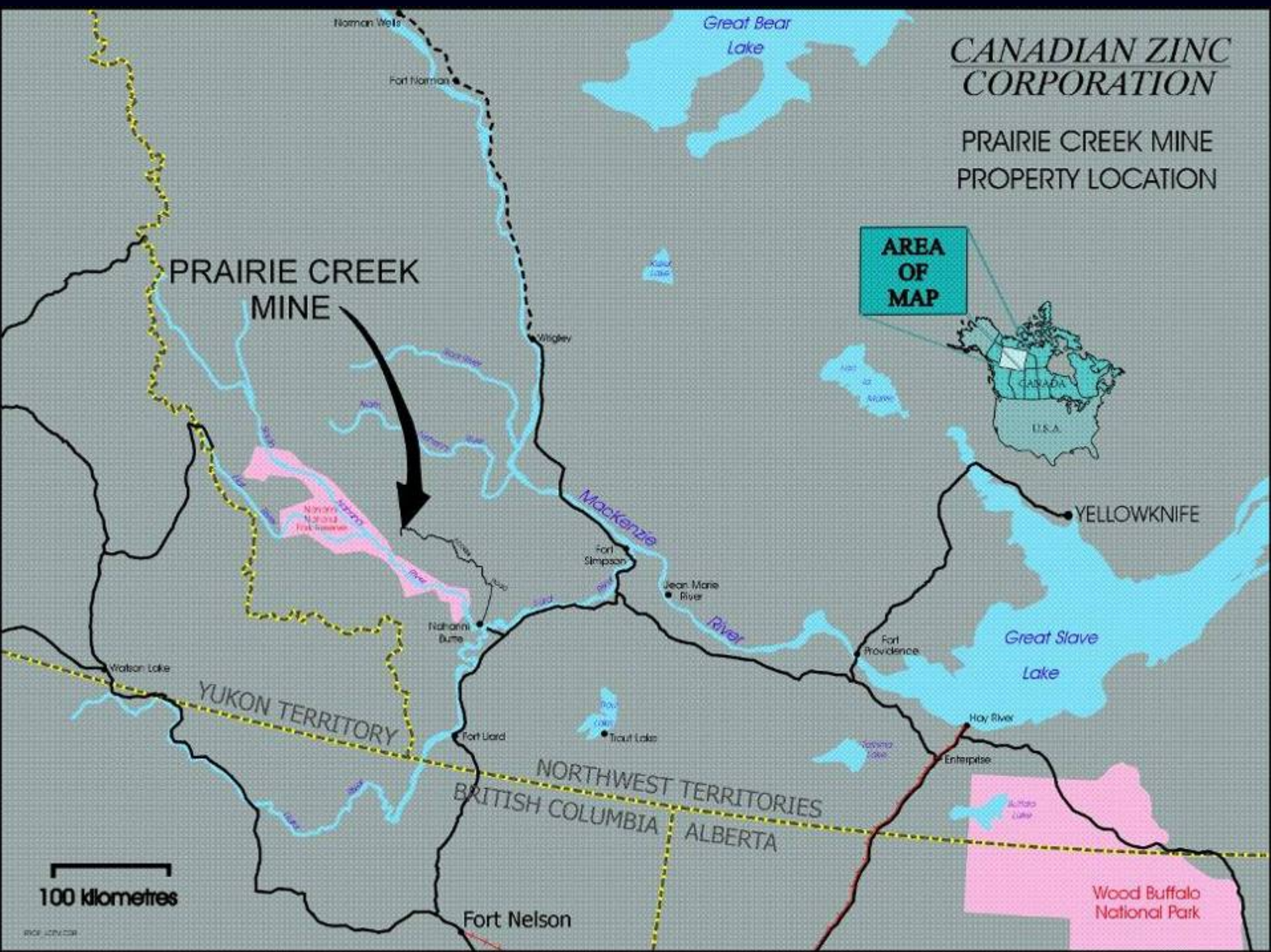
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CANADIAN ZINC CORPORATION

PRAIRIE CREEK MINE PROPERTY LOCATION



AREA OF MAP



100 kilometres



The Prairie Creek Mine



Prairie Creek History



Prairie Creek Camp: 1968

- Original discovery in 1928
- Discovery of Main Zone in 1960's and establishment of camp
- Underground development of main zone 1960'-70's.
- Cadillac Exploration 1979-1982, minesite infrastructure setup, road to Liard established, fully permitted
- April 1982, silver price collapse, Cadillac bankrupt 3 months from production
- 1993 San Andreas acquires Prairie Creek
- 1999 San Andreas name change to Canadian Zinc
- 2000-2007 CZN exploration and development programs

Prior/Existing Permits

- **Mine and Winter Road Land Use Permits, 1980**
- **Mine Water License, 1982**
- **Land Use Permit and Water License for Underground Decline and Pilot Mill Plant, 2003 (Water License renewed for 5 years)**
- **Winter Road Land Use Permit, 2007**
- **Phase 3 Exploration Land Use Permit, 2006**

WINTER ROAD TO LIARD

3000 FOOT AIRSTRIP

3 LEVELS OF UG

1000 TPD MILL &
POWER
GENERATION

POND

ACCOMMODATIONS

FLOOD PROTECTION DIKE

SEWAGE TREATMENT PLANT

WORKSHOPS, OFFICE

FUEL FARM

The Prairie Creek Mine



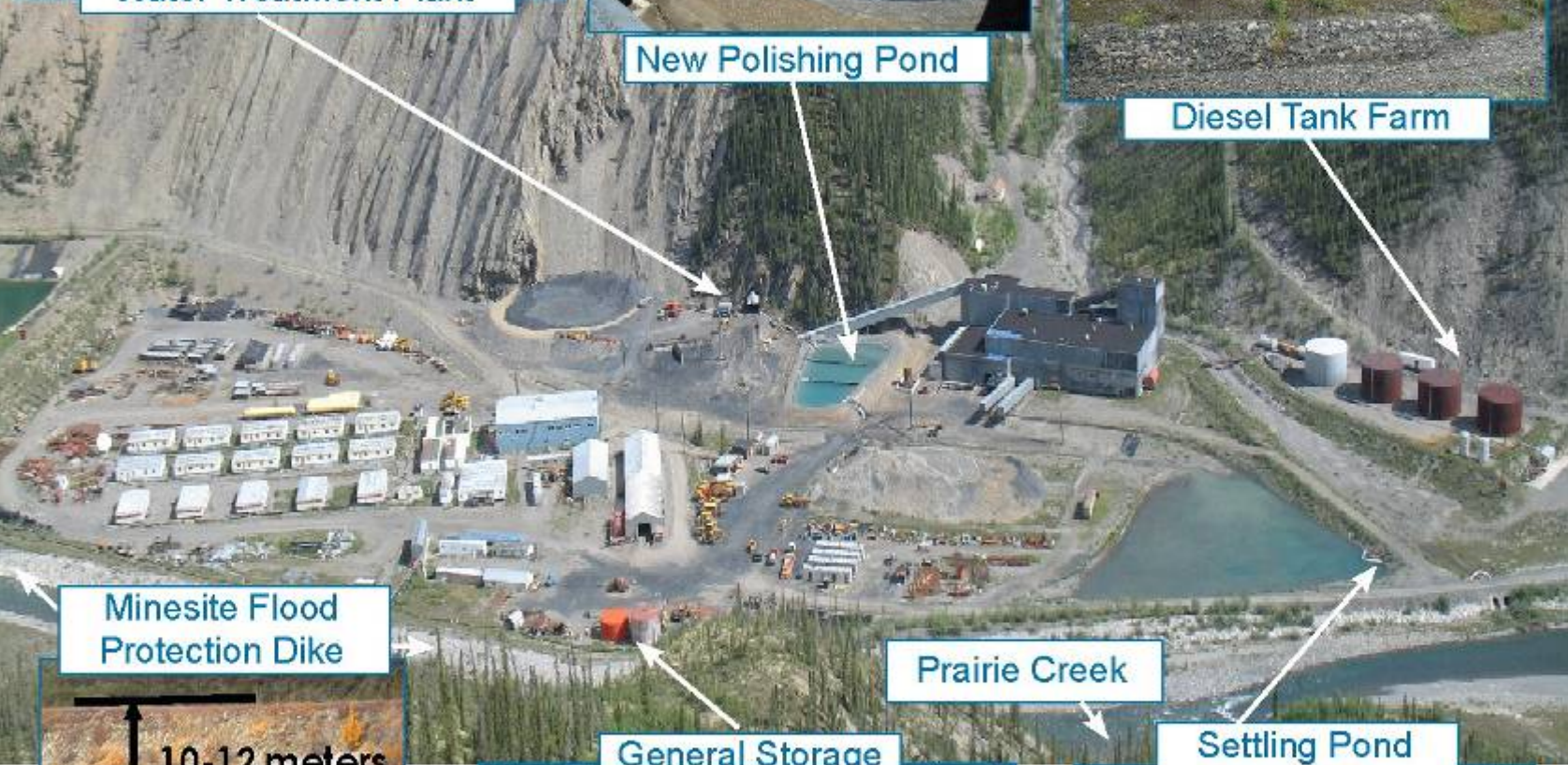
Water Treatment Plant



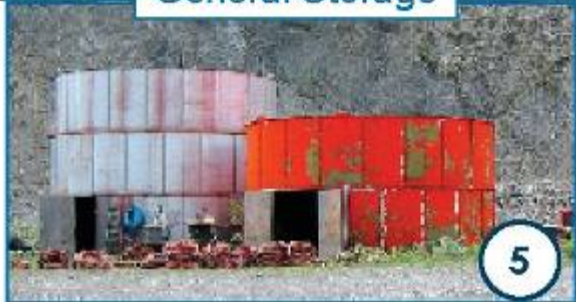
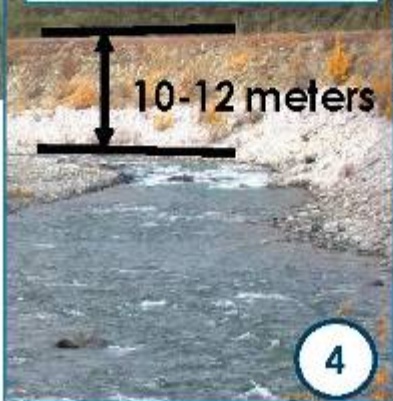
New Polishing Pond



Diesel Tank Farm



Minesite Flood Protection Dike



General Storage



Settling Pond Control Gate

PRAIRIE CREEK MINE: WATER

Mill and Catchment Pond



Mill



Water Storage Pond



Camp



Main Dike



Tank Farm



Adit and Polishing Pond



Water Sampling



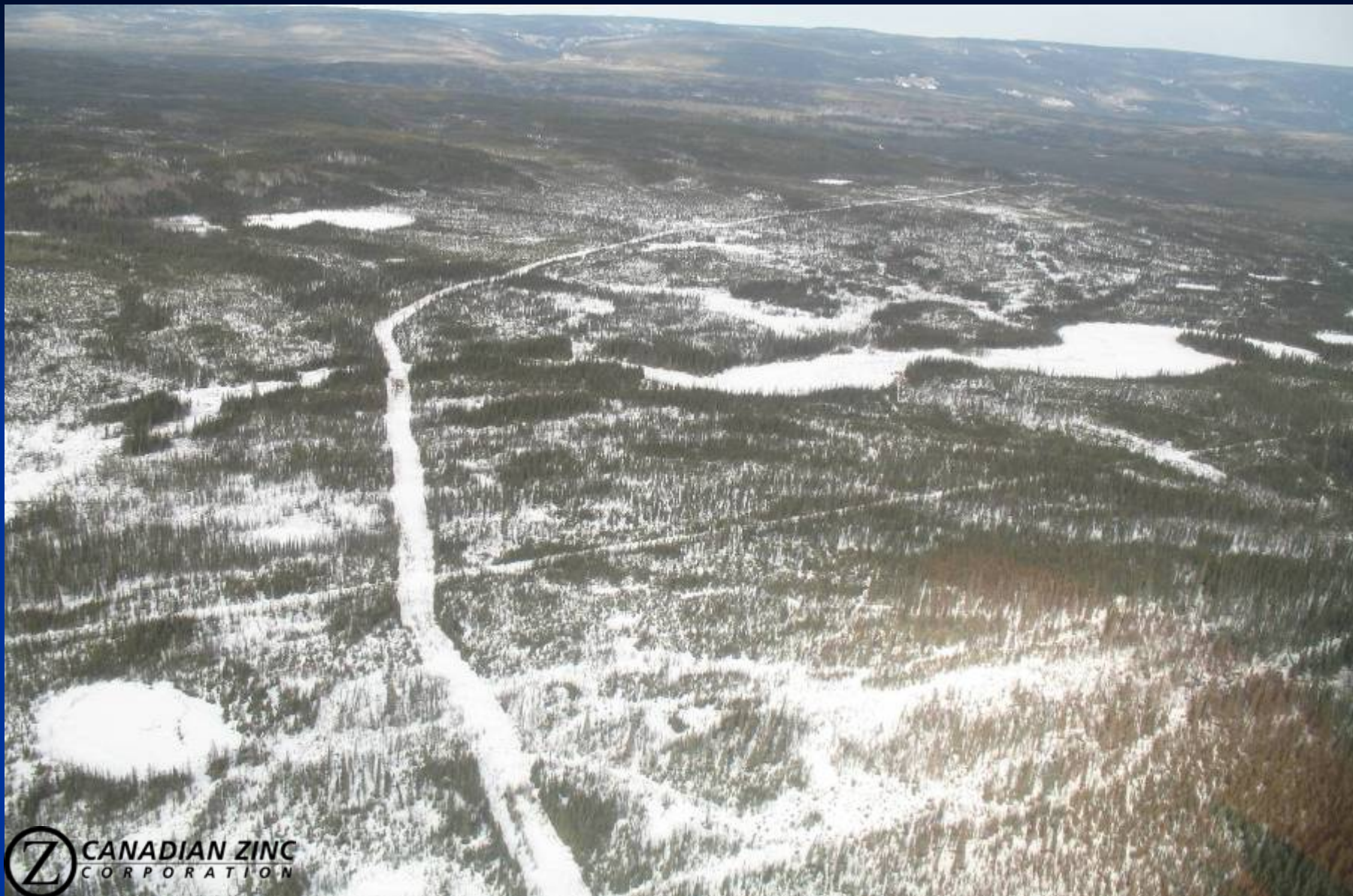
Parts Storage



Magazines and Reagent Pad



PRAIRIE CREEK – LIARD HIGHWAY WINTER ROAD



WINTER ROAD LAND USE PERMIT RECEIVED 2007

Previous EA's

- **Six environmental assessments 2001 - 2006**
- **Underground Decline & Pilot Plant, 2003**
 - Mine Water Contingency Plan
 - Effluent Treatment Options Plan
 - Polishing Pond
 - Tank Farm inspections
 - Maximum Flood Re-Assessment
 - Wildlife Management Plan
 - Fuel Spill Contingency Plan
- **Phase 3 Drilling, 2006**
 - Wildlife survey
 - Flight Impact Management Plan

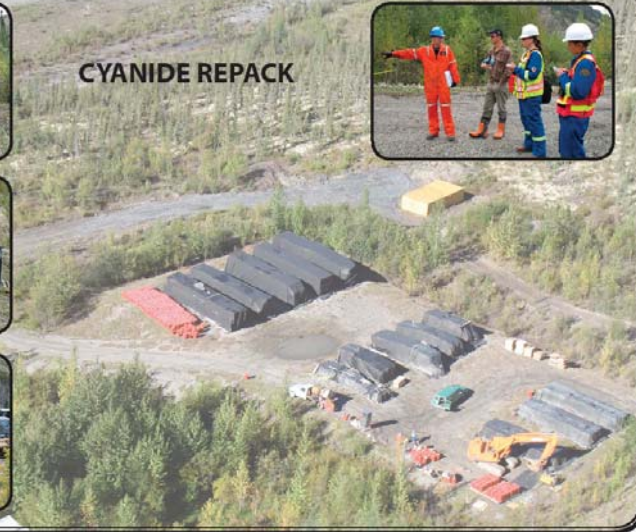
LOCAL ACTIVITIES

ENVIRONMENTAL MONITORING

Training in Partnership with NWT MINE TRAINING SOCIETY
Monitoring Services Provided by NOGHA ENTERPRISES



CYANIDE REPACK



Prairie Creek Employment - Summer 2007

Total people employed at mine - 47
First Nations employment - 22 (47%)
Dehcho-based employment - 19 (40%)

Nahanni Butte - 7
Fort Liard - 6
Fort Simpson - 5
Jean Marie River - 1

Local Expenditure Since 2004

Direct First Nation Payroll	\$ 493,411
Direct First Nations Service Co.	\$ 1,261,189
Education and Training	\$ 39,150
TOTAL	\$1,793,750

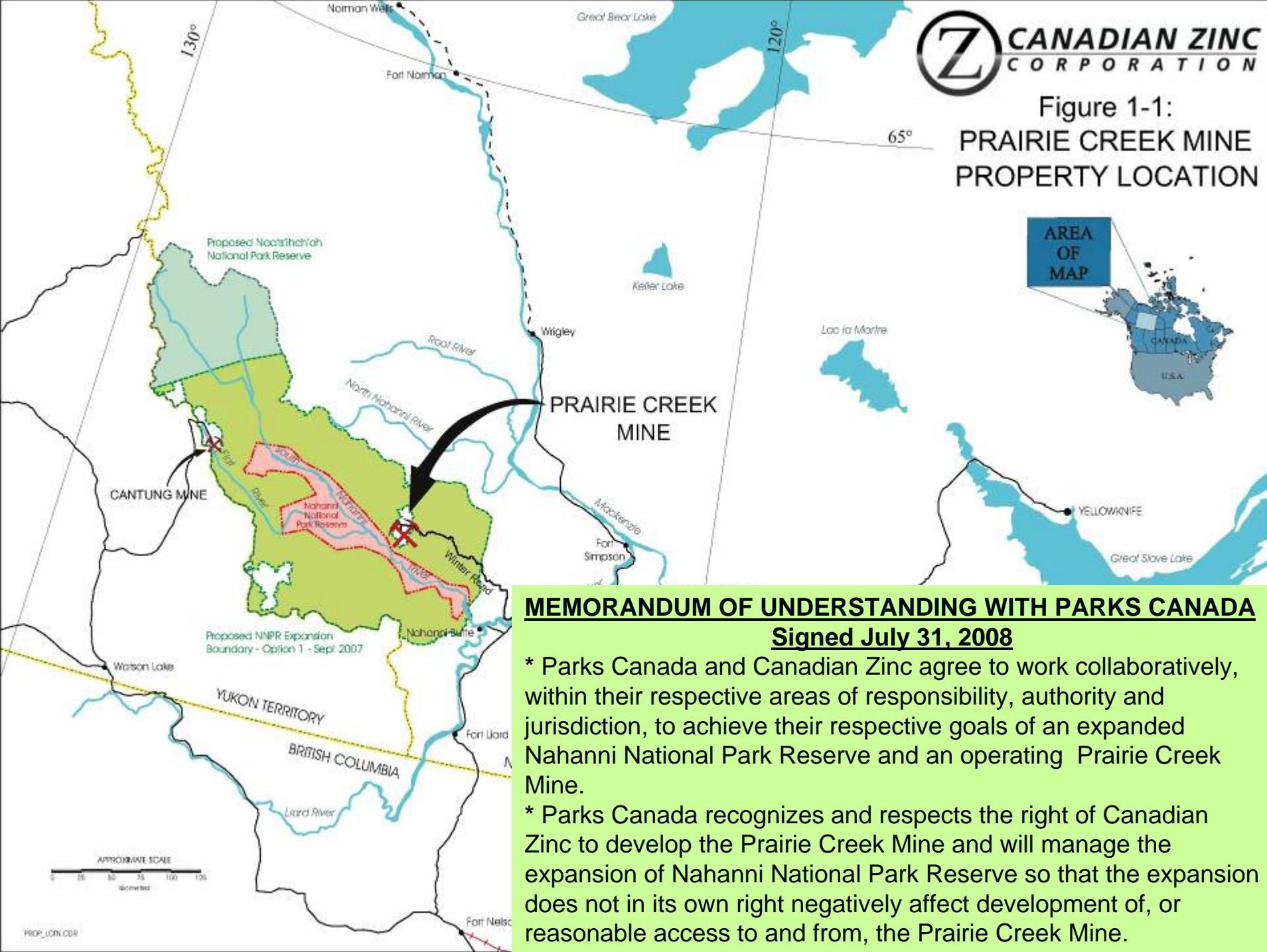


Catering and Camp Services provided by:
ACHO CAMPS AND CATERING, Fort Liard

ROAD CONSTRUCTION 2008



Figure 1-1:
PRAIRIE CREEK MINE
PROPERTY LOCATION




MEMORANDUM OF UNDERSTANDING WITH PARKS CANADA
Signed July 31, 2008

- * Parks Canada and Canadian Zinc agree to work collaboratively, within their respective areas of responsibility, authority and jurisdiction, to achieve their respective goals of an expanded Nahanni National Park Reserve and an operating Prairie Creek Mine.
- * Parks Canada recognizes and respects the right of Canadian Zinc to develop the Prairie Creek Mine and will manage the expansion of Nahanni National Park Reserve so that the expansion does not in its own right negatively affect development of, or reasonable access to and from, the Prairie Creek Mine.

Mining, then and now

- **Cadillac era (1982)**
- **Today**




PRAIRIE CREEK MINE
PROJECT DESCRIPTION REPORT

SUBMITTED IN SUPPORT OF:
Type "A" Water Licence Application
Type "A" Land Use Permit Application


SUBMITTED TO:
Mackenzie Valley Land and Water Board
Box 2130, 4910 - 50th Avenue,
Yellowknife, NT, X1A 2P6

SUBMITTED BY:
Canadian Zinc Corporation
Suite 1710 - 650 West Georgia Street
Vancouver, BC, V6B 4N9

May, 2008



PRAIRIE CREEK MINE
LIARD TRANSFER FACILITY
PROJECT DESCRIPTION REPORT



PRAIRIE CREEK MINE
TETCELA TRANSFER FACILITY
PROJECT DESCRIPTION REPORT

SUBMITTED IN SUPPORT OF:
Type "A" Land Use Permit Application

SUBMITTED TO:
Mackenzie Valley Land and Water Board
Box 2130, 4910 - 50th Avenue,
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SUBMITTED BY:
Canadian Zinc Corporation
Suite 1710 - 650 West Georgia Street
Vancouver, BC, V6B 4N9

May, 2008

Letters of Support

- **LKFN**
- **ADKFN**
- **MLA Menicoche**

Precedent and View

- **2005, Supreme Court rules CZN's 2003 application for winter road permit exempt from EA (grandfathered)**
- **CZN could apply for Cadillac's mine project and avoid EA**
- **CZN chooses to include modern waste and water management plans**
- **CZN's view is EA should focus on new plans and water quality**

Geological Resource

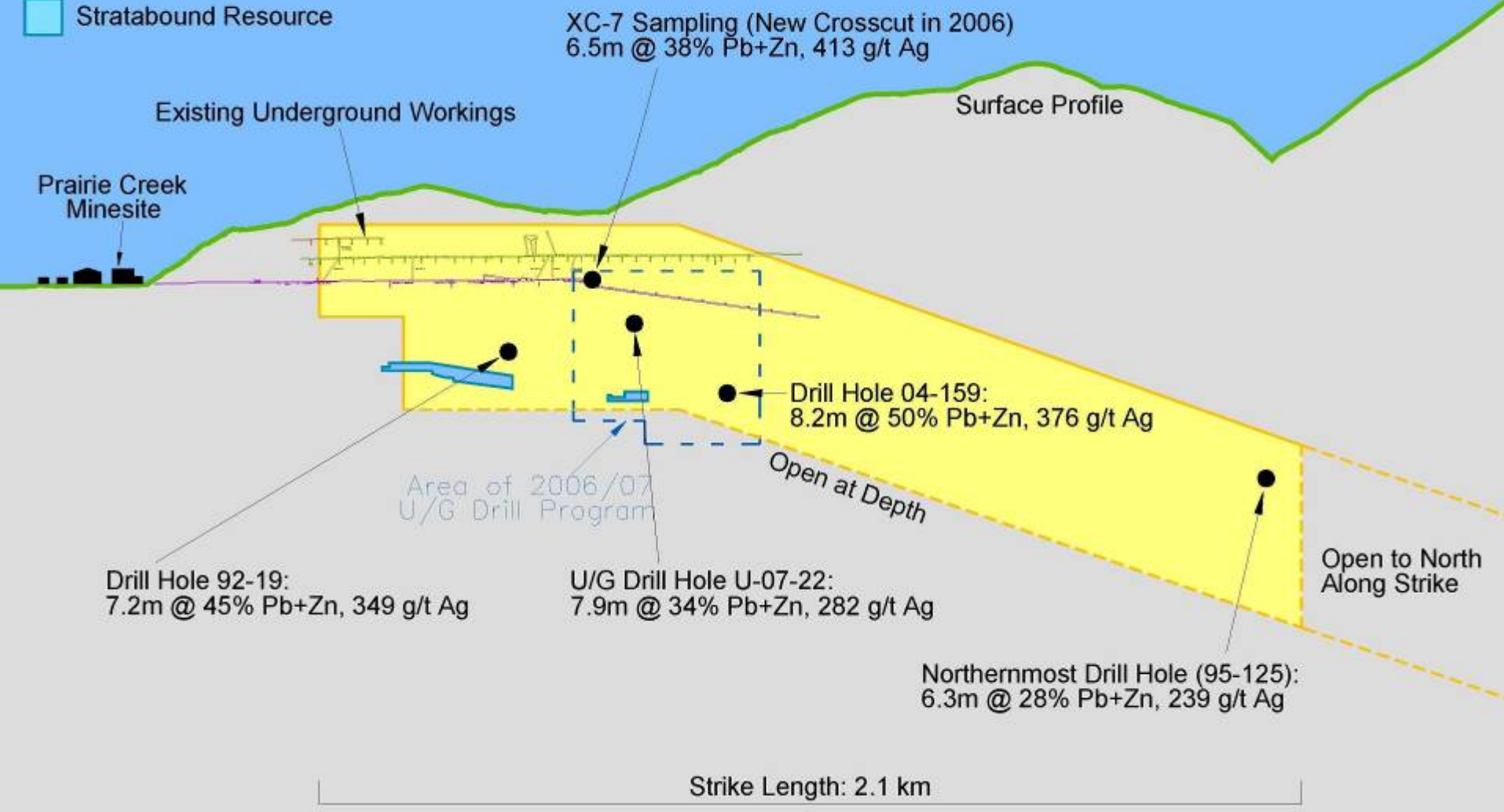
- Total resource = 11.85 million tonnes:
12.5% Zn; 10.1% Pb; 161 g/t Ag; 0.4% Cu
- Measured and Indicated = 3.57 million tonnes:
11.9% Zn; 9.7% Pb; 142 g/t Ag; 0.3% Cu
- >60 million ounces silver
>3 billion lbs of zinc
>2.2 billion lbs of lead

LONG SECTION OF PRAIRIE CREEK MAIN ZONE Facing West



North →

- Vein Resource
- Stratabound Resource





970 Portal

930 Portal

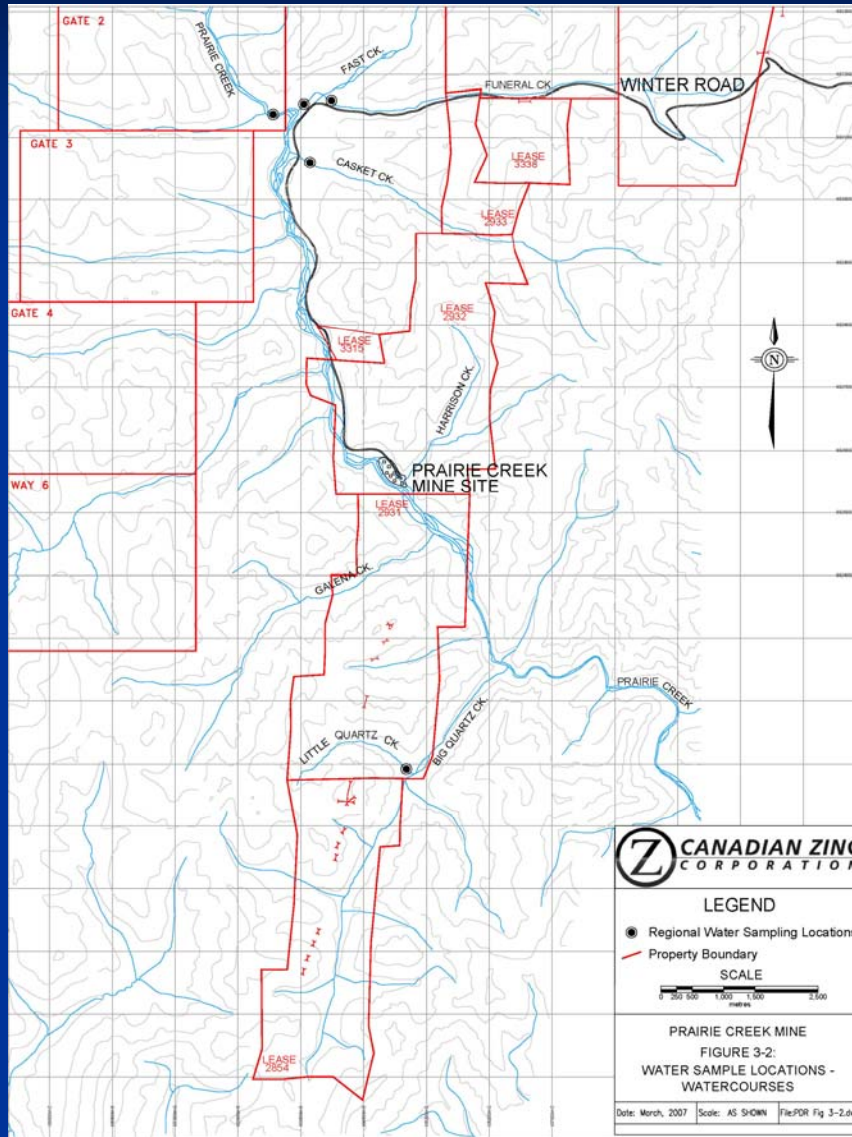
870 Portal

The Prairie Creek Mine 2008

Baseline Studies

- **Climate**
- **Hydrology**
- **Water Quality**
- **Fish**
- **Wildlife**

Water Quality



OPERATIONS OVERVIEW

- Up to 1,300 tonnes/day mining
- Up to 1,000 tonnes/day milling
- Crushing/grinding/flotation process, addition of dense media separation and backfill plants
- Production of zinc and lead concentrates, transport by truck to railhead via winter road
- Mill rock and tailings placed underground
- Creation of a Waste Rock Pile
- Conversion of original tailings pond to Water Storage Pond to allow recycle

Vein Mineralization

Footwall contact

Hanging wall contact

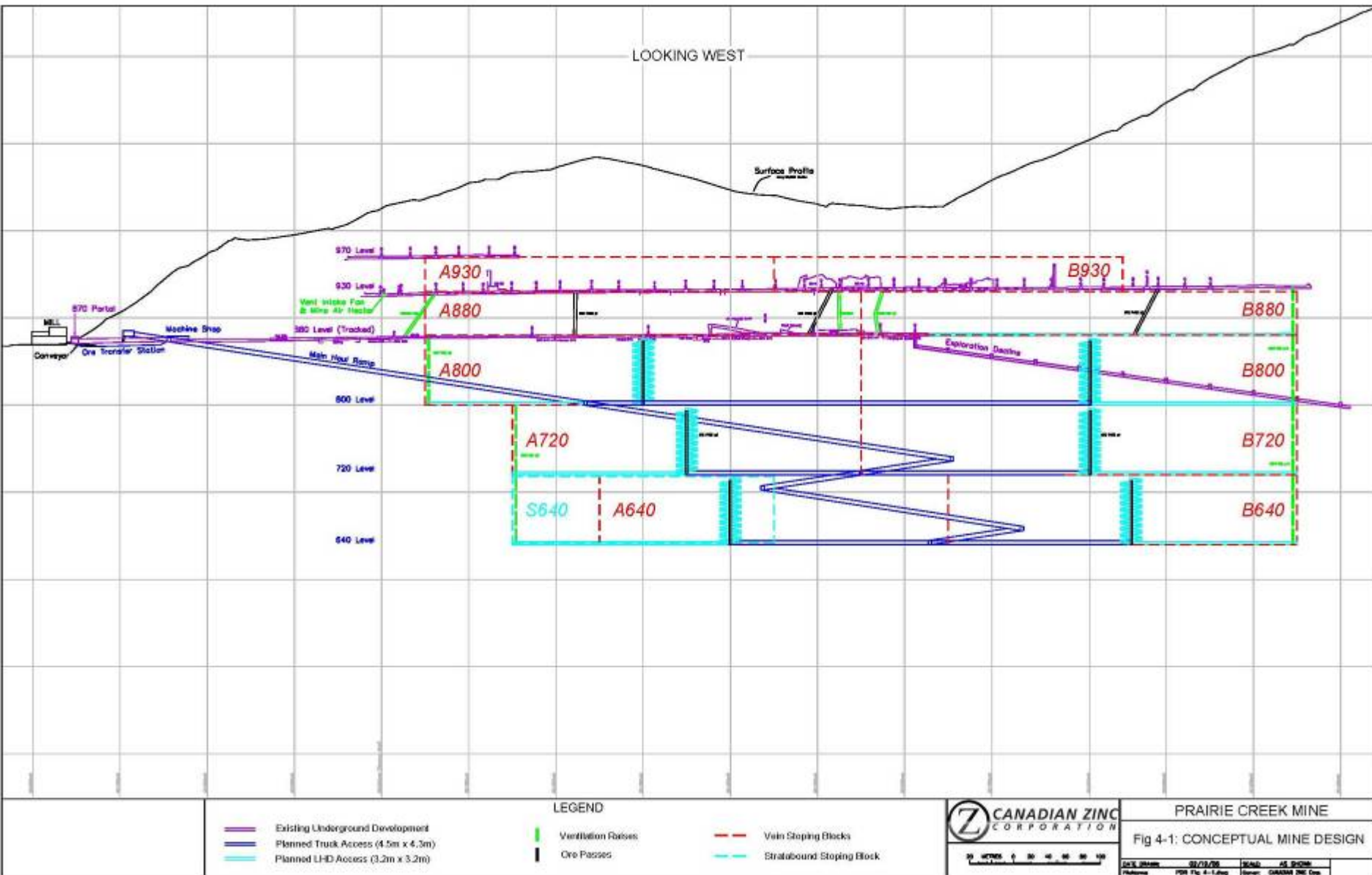
5.9% Pb, 39.4% Zn, 176.8 gpt Ag/1.9 m

UNDERGROUND 930 LEVEL: X-CUT 09

THE MINE AT PRAIRIE CREEK



Prairie Creek Mine Plan



METALLURGICAL FLOWSHEET

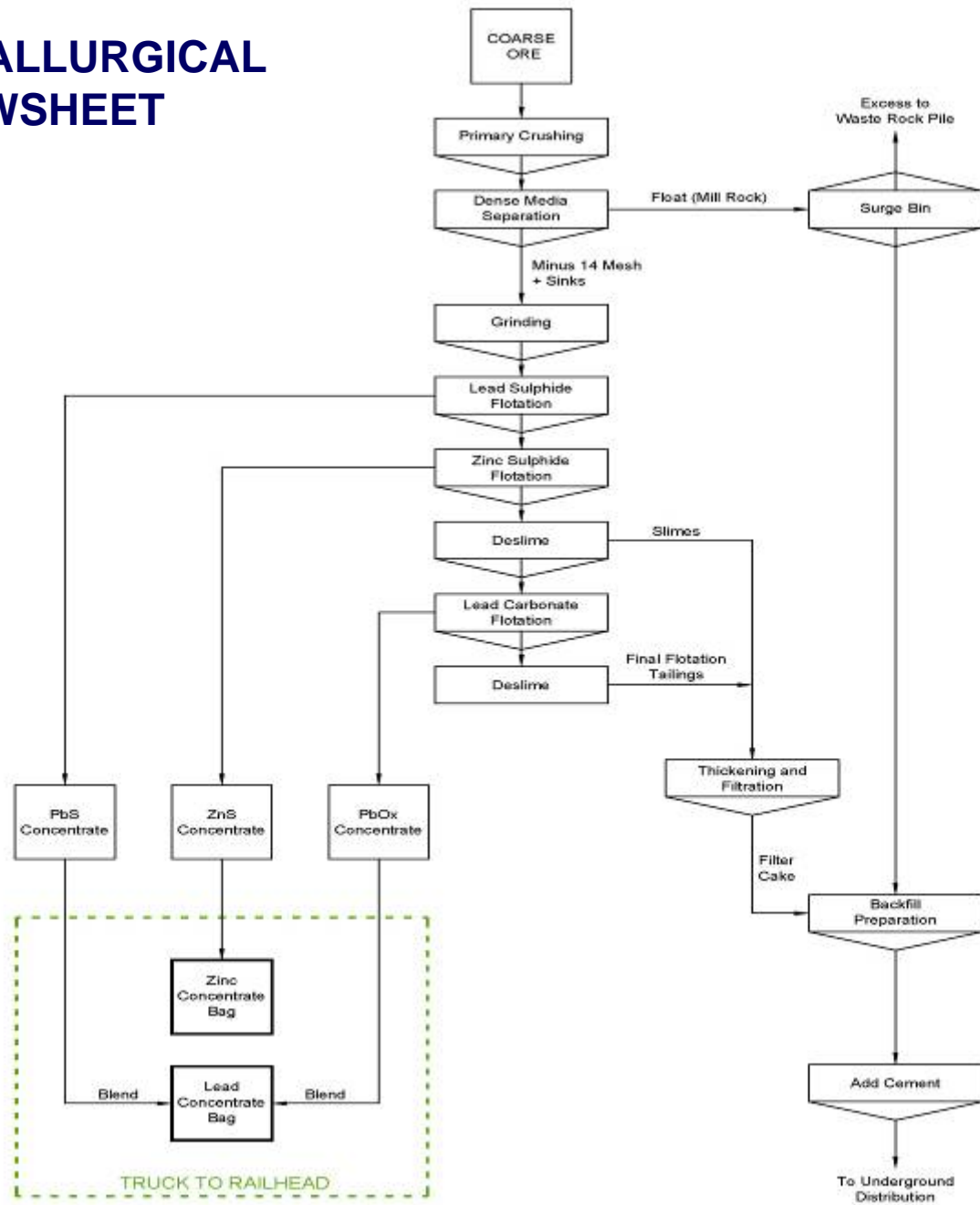


Figure 4-4: Simplified Metallurgical Process Flowsheet

Cone Crusher



Milling

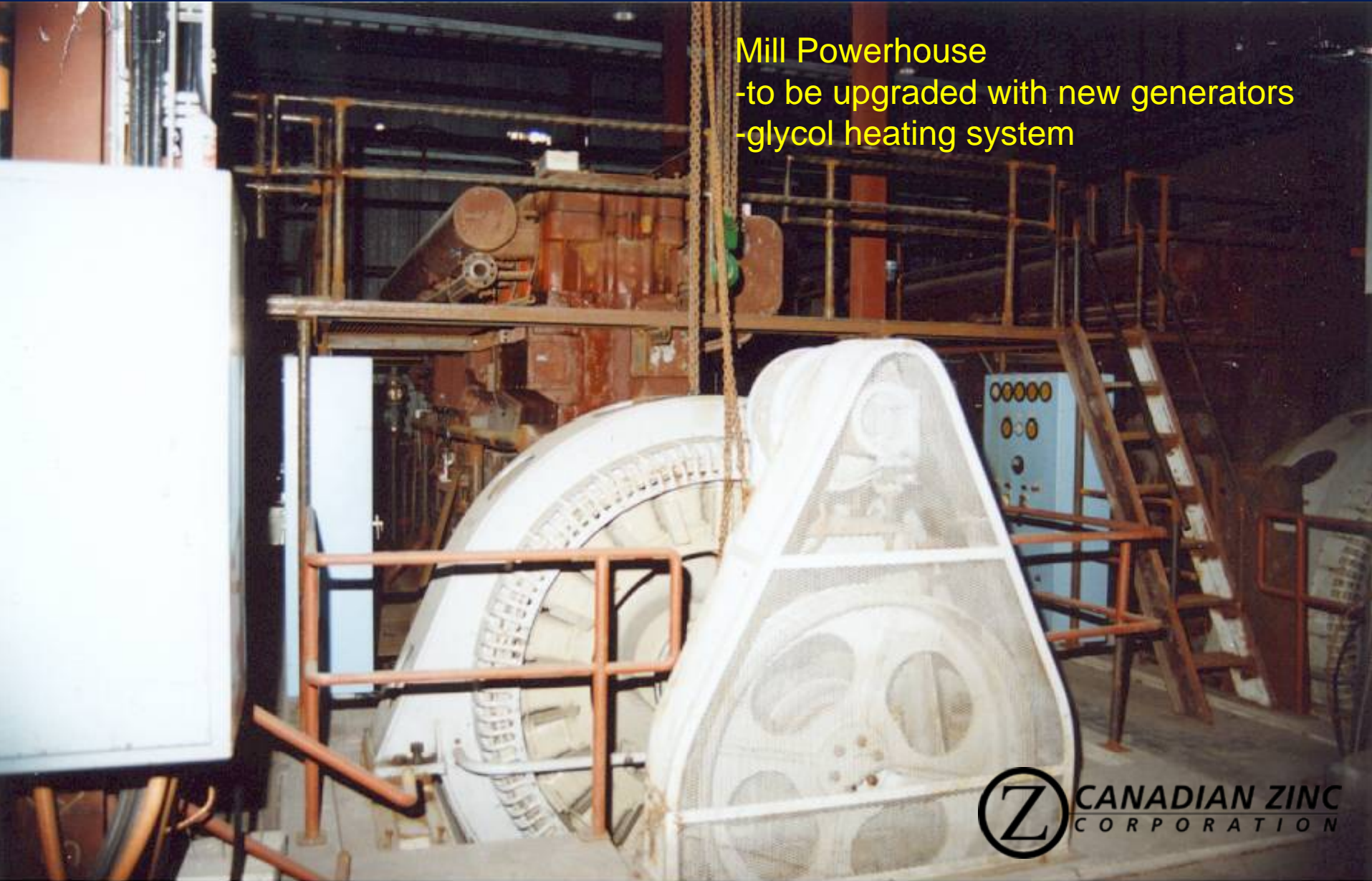
Flotation Cells

Ball Mill

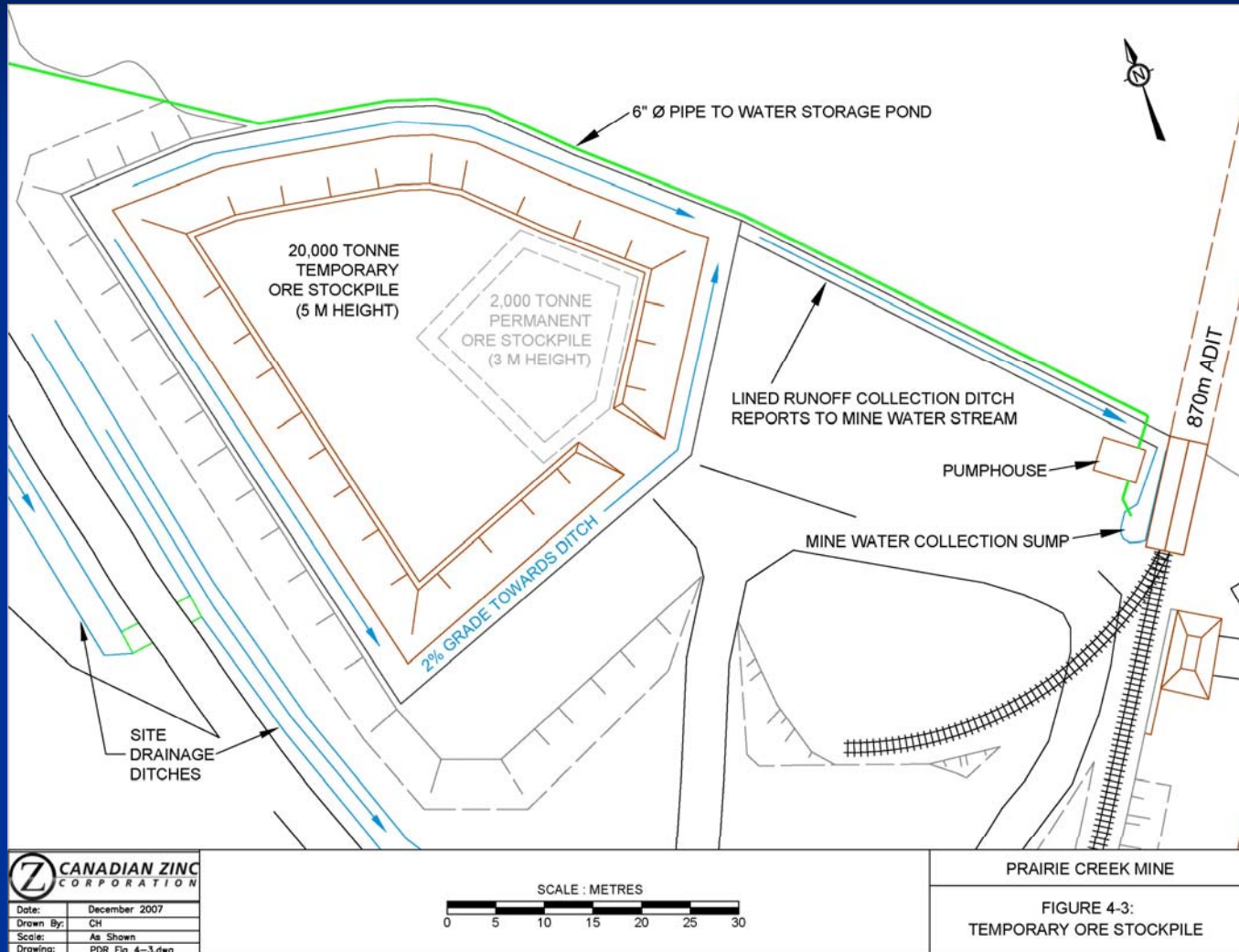
4x 1150 kw Generator

Mill Powerhouse

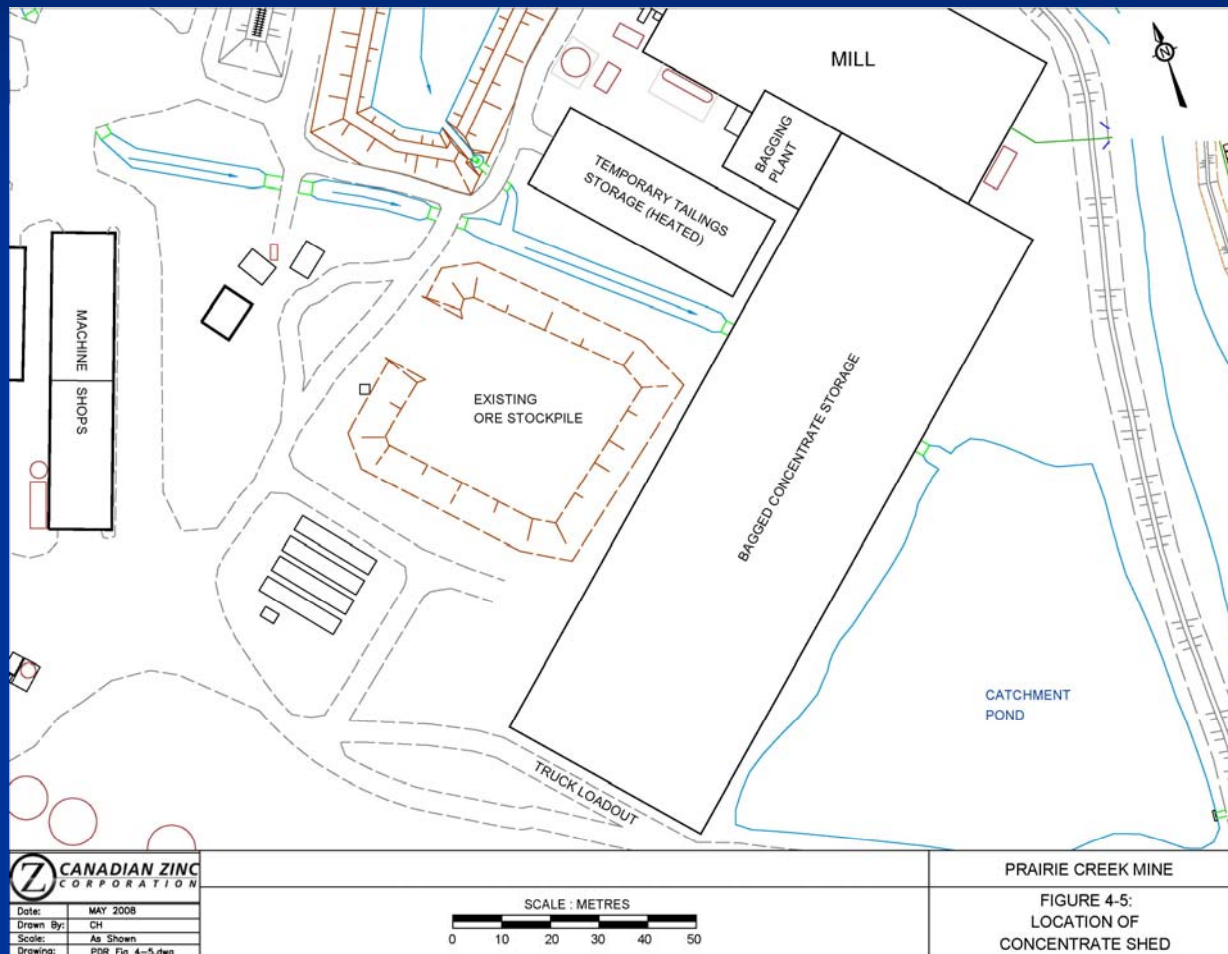
- to be upgraded with new generators
- glycol heating system



Ore Stockpile



Concentrate Shed



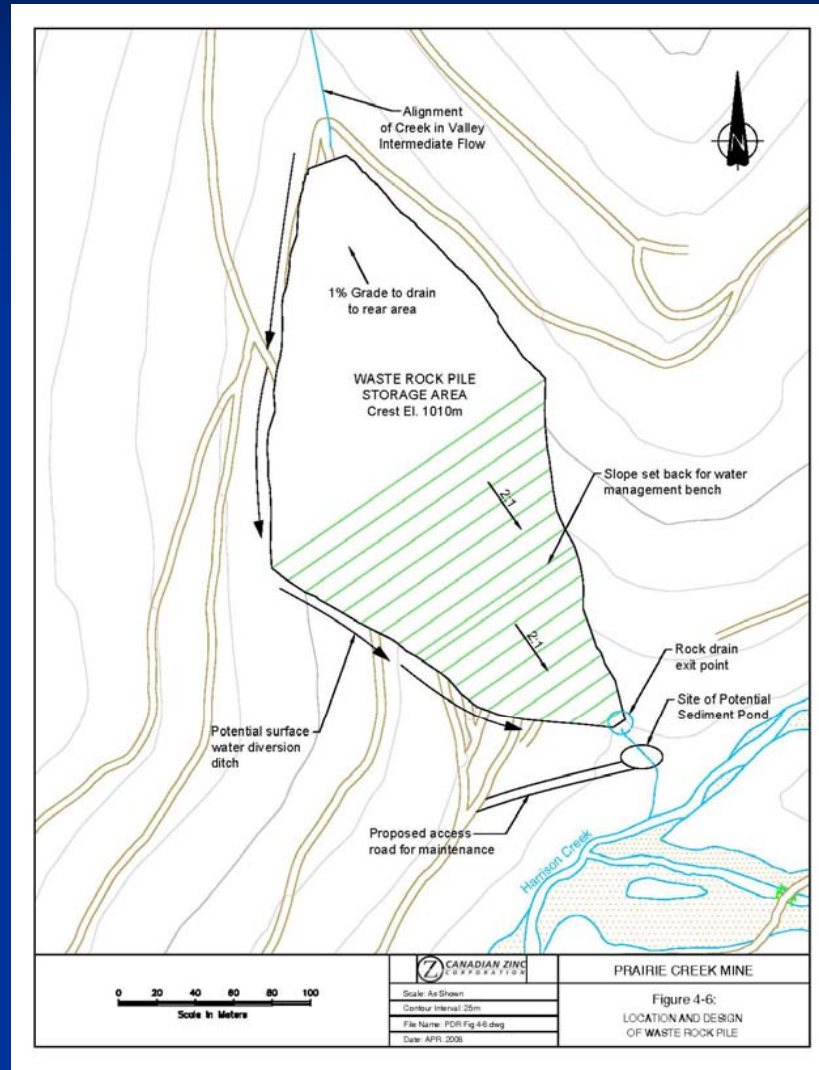
Tailings Mix on Surface



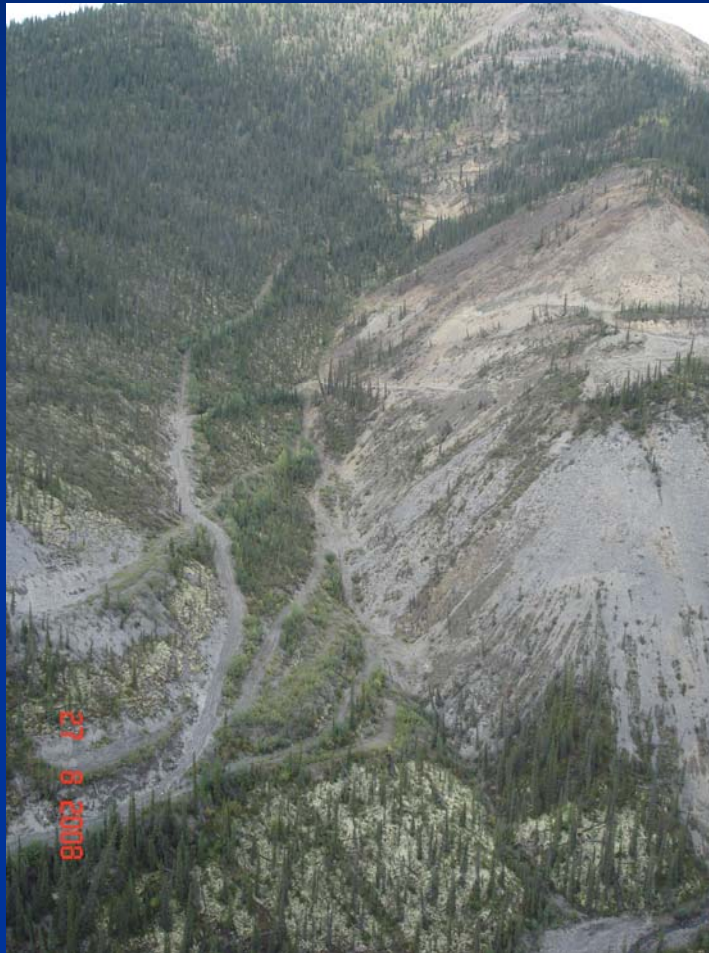
Tailings Mix Underground

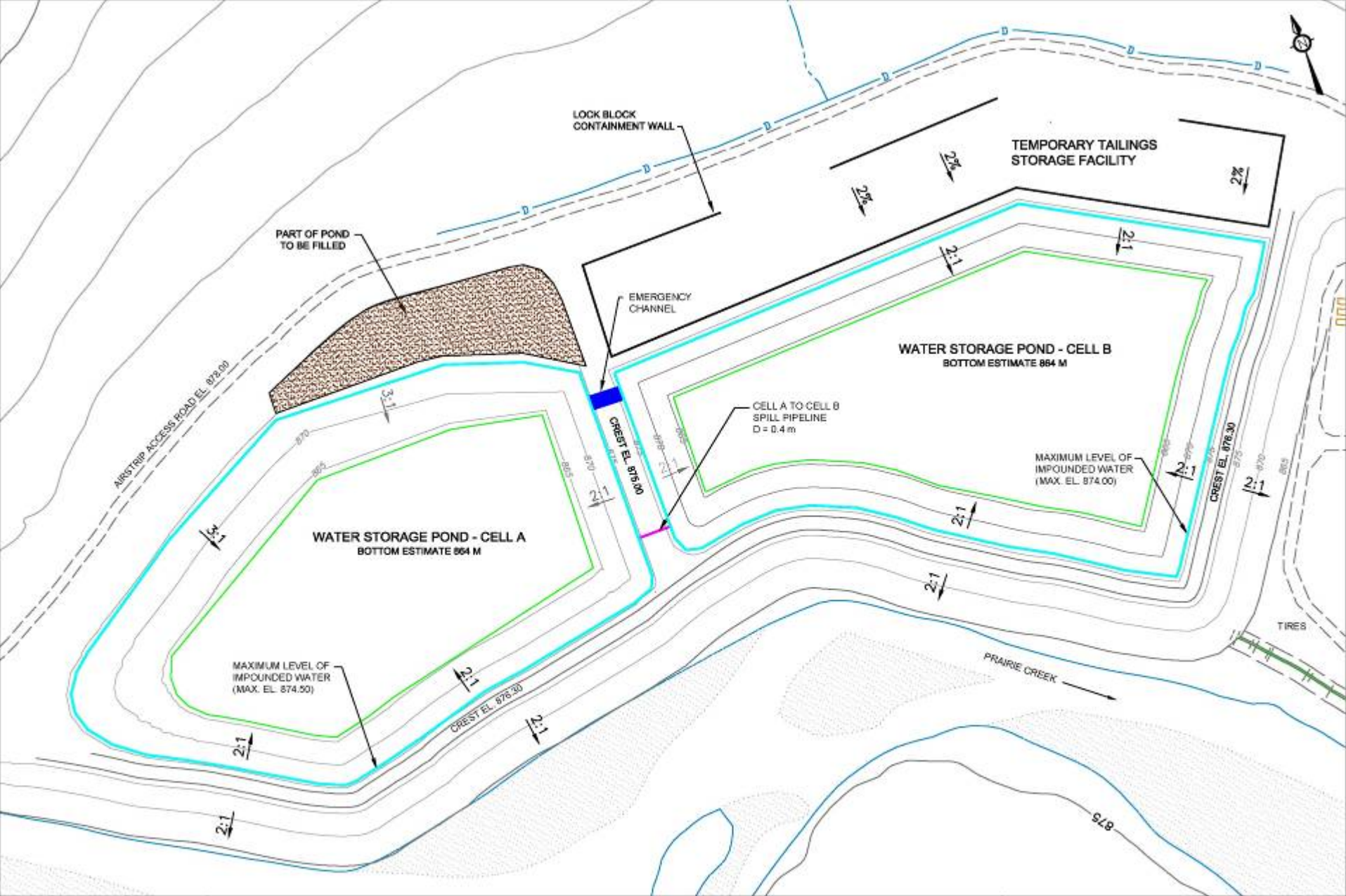


Waste Rock Pile

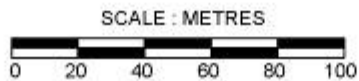


Waste Rock Pile Site



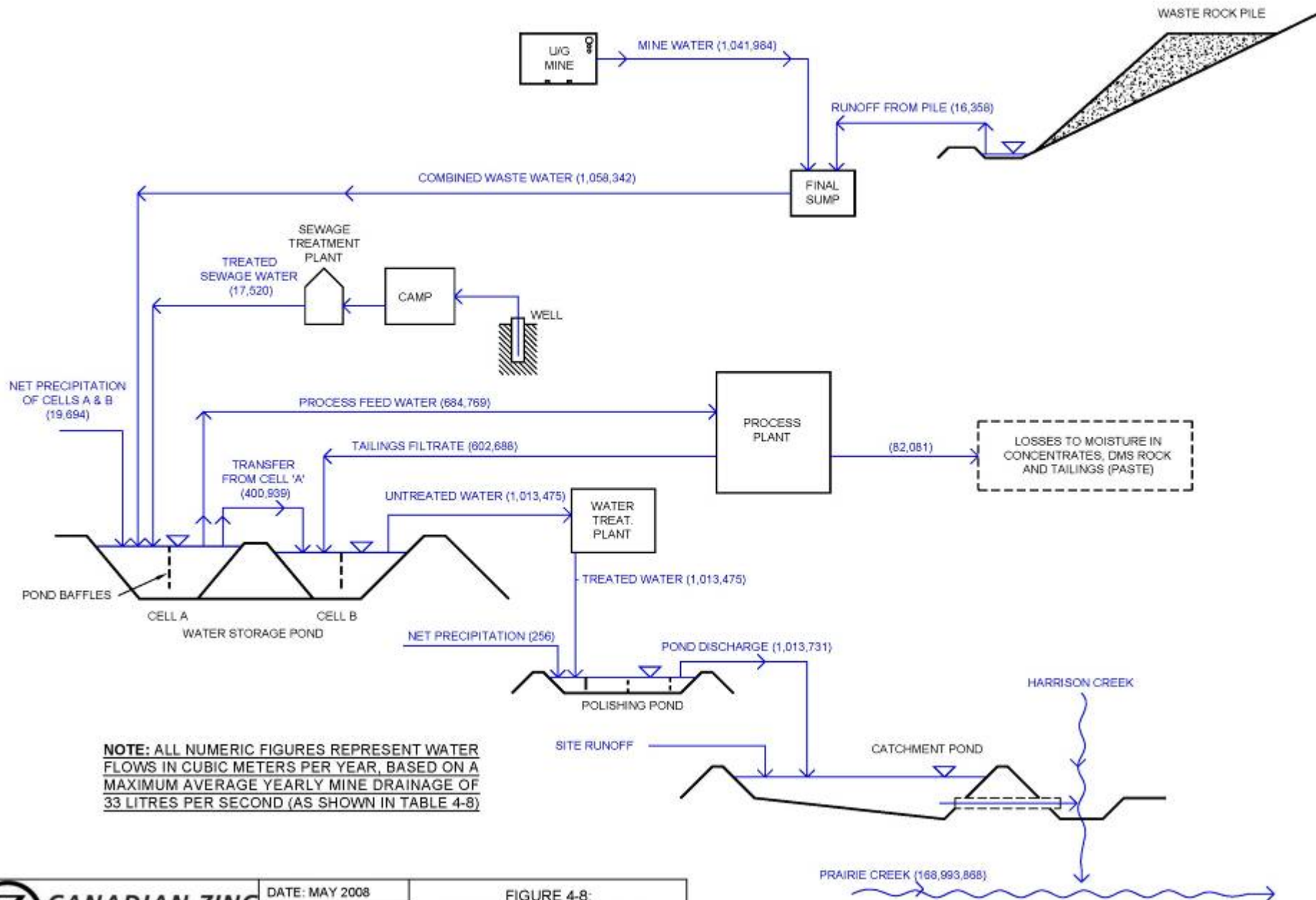


Date: MAY 2008
 Drawn By: CH
 Scale: As Shown
 Drawing: PDR Fig 4-9.dwg



PRAIRIE CREEK MINE

FIGURE 4-9:
 LOCATION AND LAYOUT OF
 WATER STORAGE POND



Polishing Pond





The Prairie Creek Mine: present-day



CANADIAN ZINC
CORPORATION



Upgraded Mine Facilities:

- | | | |
|------------------------------------|-------------------------------|---|
| 1 - Water Storage Pond - Cell "A" | 5 - New Accommodations Block | 9 - DMS Plant (Behind Mill) |
| 2 - Water Storage Pond - Cell "B" | 6 - Covered Ore Stockpile | 10 - Temporary DMS Rock Storage Pad |
| 3 - Temporary Tailings Storage Pad | 7 - New Underground Portal | 11 - Paste Backfill Plant (Behind Mill) |
| 4 - Water Treatment Plant | 8 - Concentrate Storage Sheds | 12 - Waste Rock Pile |



Plate 4-2: Prairie Creek Site Showing Conceptual View of Upgraded Mine Facilities

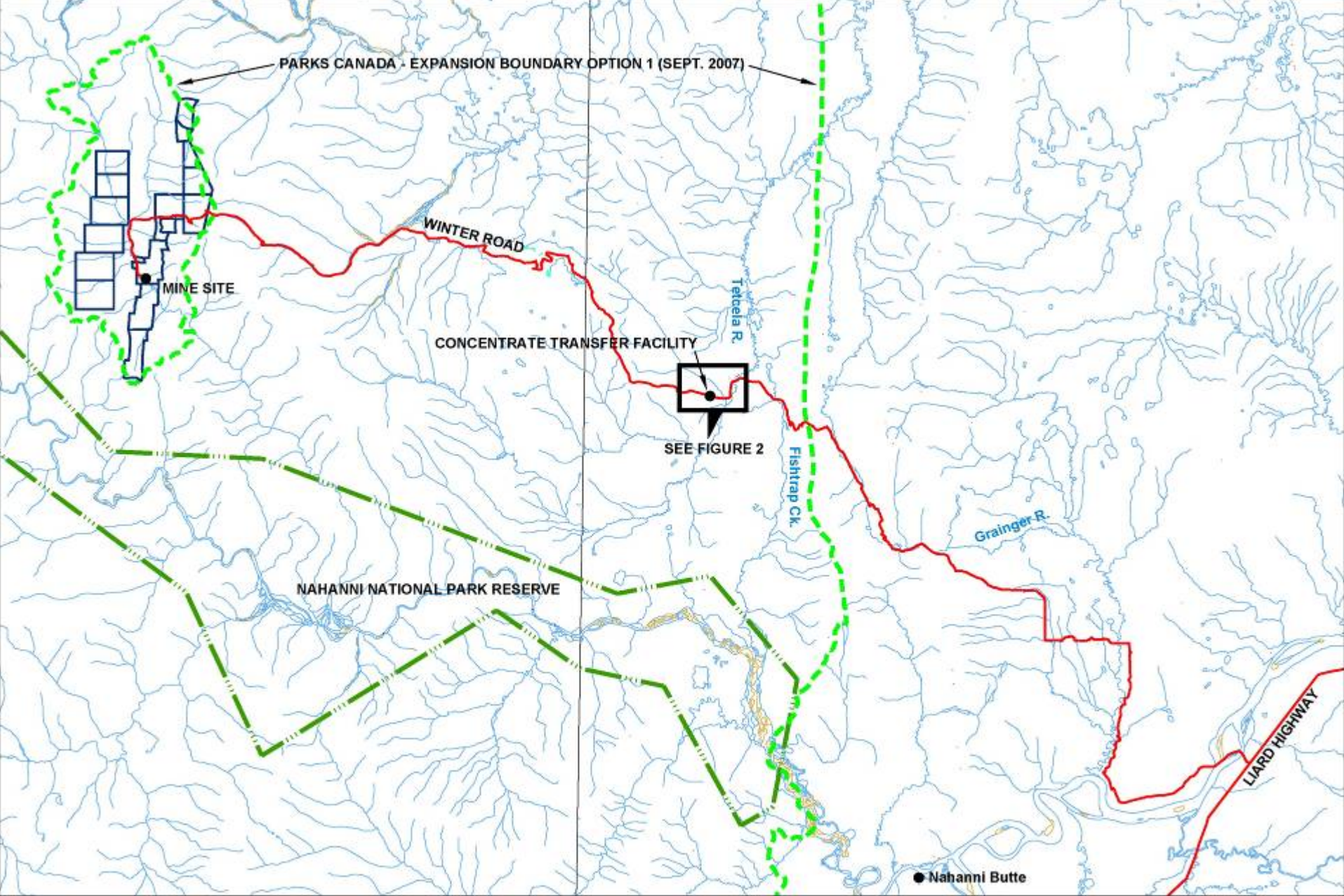
Manpower and Logistics

- **220 full-time jobs at the Mine**
- **3 weeks on, 3 weeks off rotation by air**
- **Concentrates/supplies haul November-March**
- **Business opportunities for catering, winter road construction, transportation**

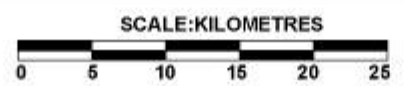
Transportation



Prairie Creek Airstrip

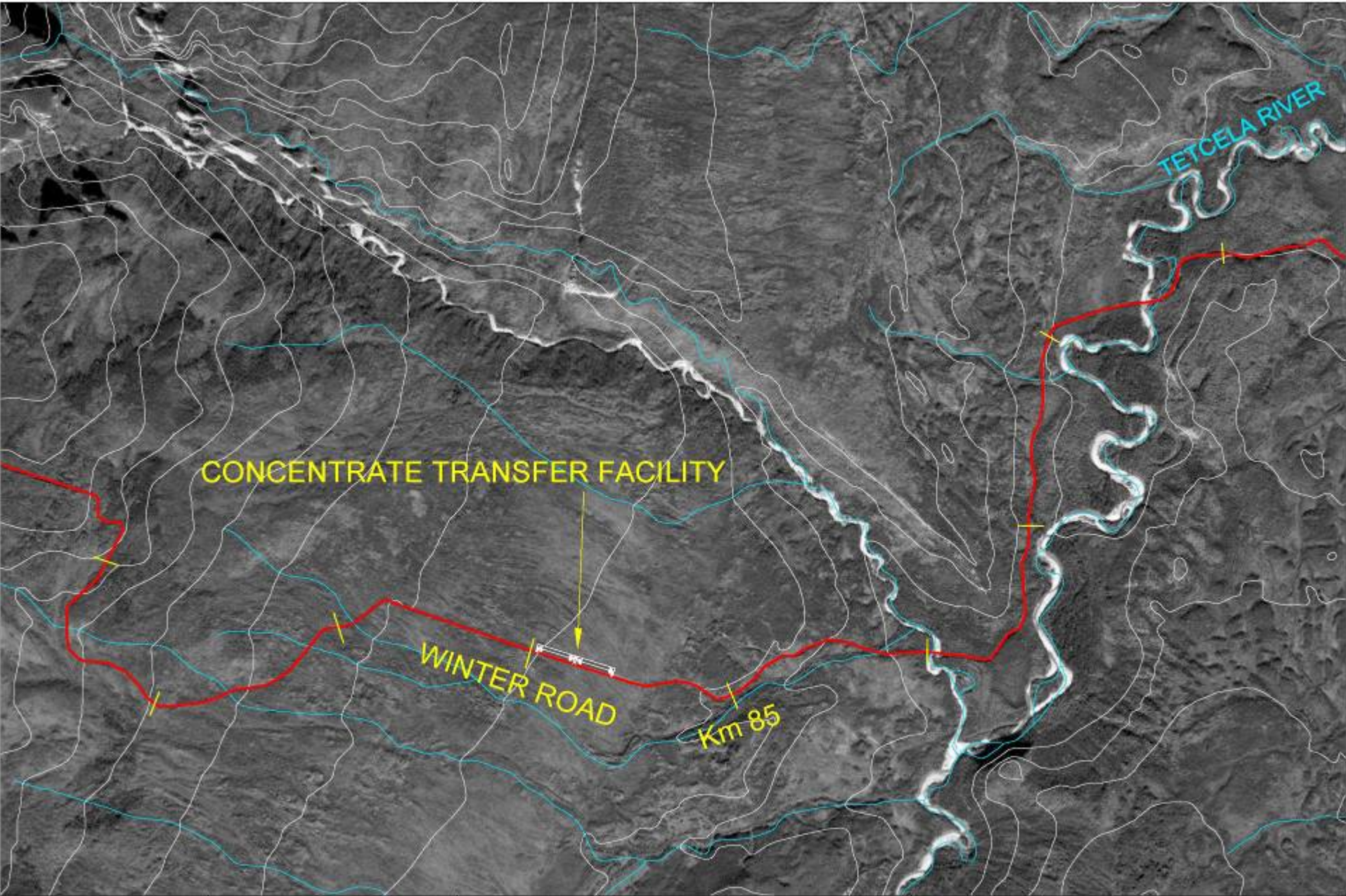


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Drawn By:	CH
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PRAIRIE CREEK MINE

FIGURE 1: LOCATION OF CONCENTRATE TRANSFER FACILITY



CONCENTRATE TRANSFER FACILITY

TETELELA RIVER

WINTER ROAD

Km 85



Date: April 2008
 Drawn By: CH
 Scale: As Shown
 Drawing: CTF Fig 2 and 3.dwg

CONTOUR INTERVAL: 100 FT

TOPO DATA FROM NRCAN
 DIGITAL TOPO DATABASE:
 NTS MAPSHEET 95 F/9



SCALE : METRES

PRAIRIE CREEK MINE

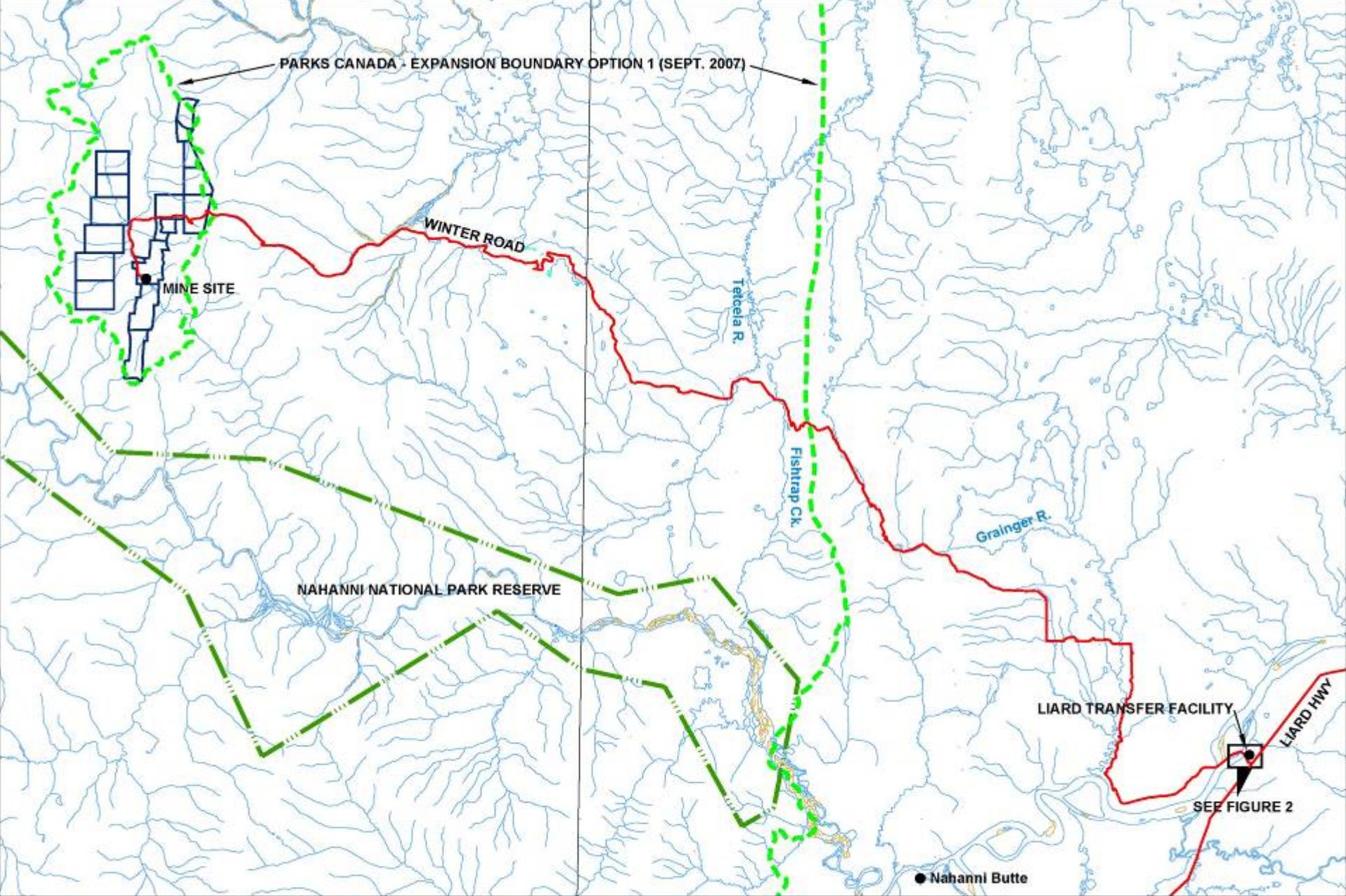
FIGURE 3:
TOPOGRAPHY OF CONCENTRATE
TRANSFER FACILITY AREA WITH AIR PHOTO BASE



Plate 1: Area of Proposed Tetcela Transfer Facility Showing Winter Road Corridor (2007, Looking East Towards Tetcela River)



Plate 2: Proposed Structure for Tetecla Transfer Facility
TOP: Exterior View of Structure, in place at Ekati Mine
BOTTOM: Interior View of Structure Showing Concentrate Tote bags (photo courtesy of Sherwood Copper)

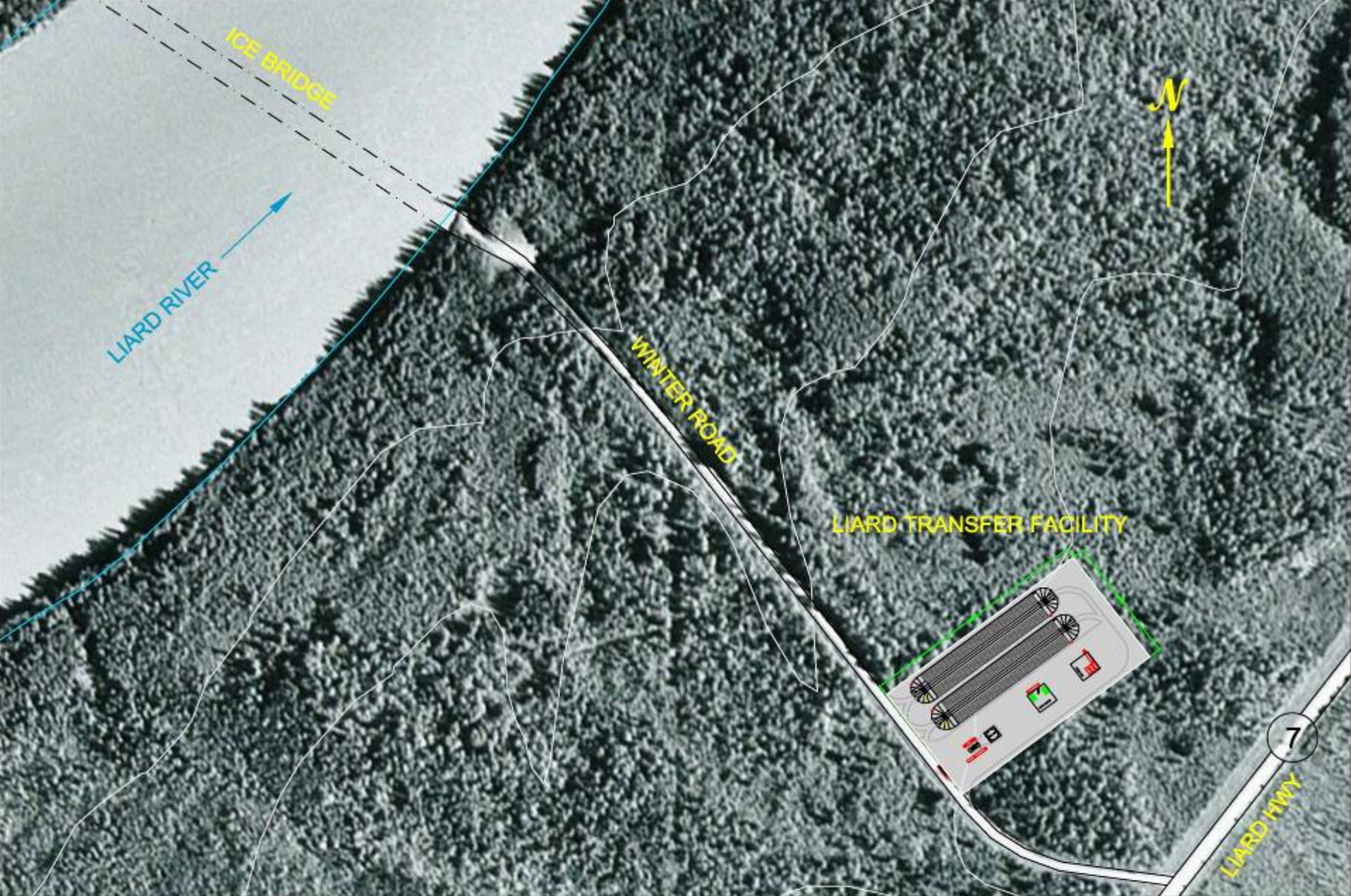


Date:	April 2008
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Scale:	As Shown
Drawing:	LTF Fig 1.dwg

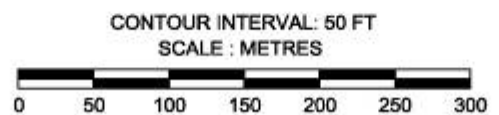


PRAIRIE CREEK MINE

FIGURE 1: LOCATION OF LIARD TRANSFER FACILITY



Date:	April 2008
Drawn By:	CH
Scale:	As Shown
Drawing:	LTf Fig 2.dwg



PRAIRIE CREEK MINE

**FIGURE 2:
LOCATION OF LIARD TRANSFER FACILITY**



CANADIAN ZINC CORPORATION

