



# PRAIRIE CREEK MINE

## POTENTIAL ENVIRONMENTAL IMPACTS



# Valued Ecosystem Components

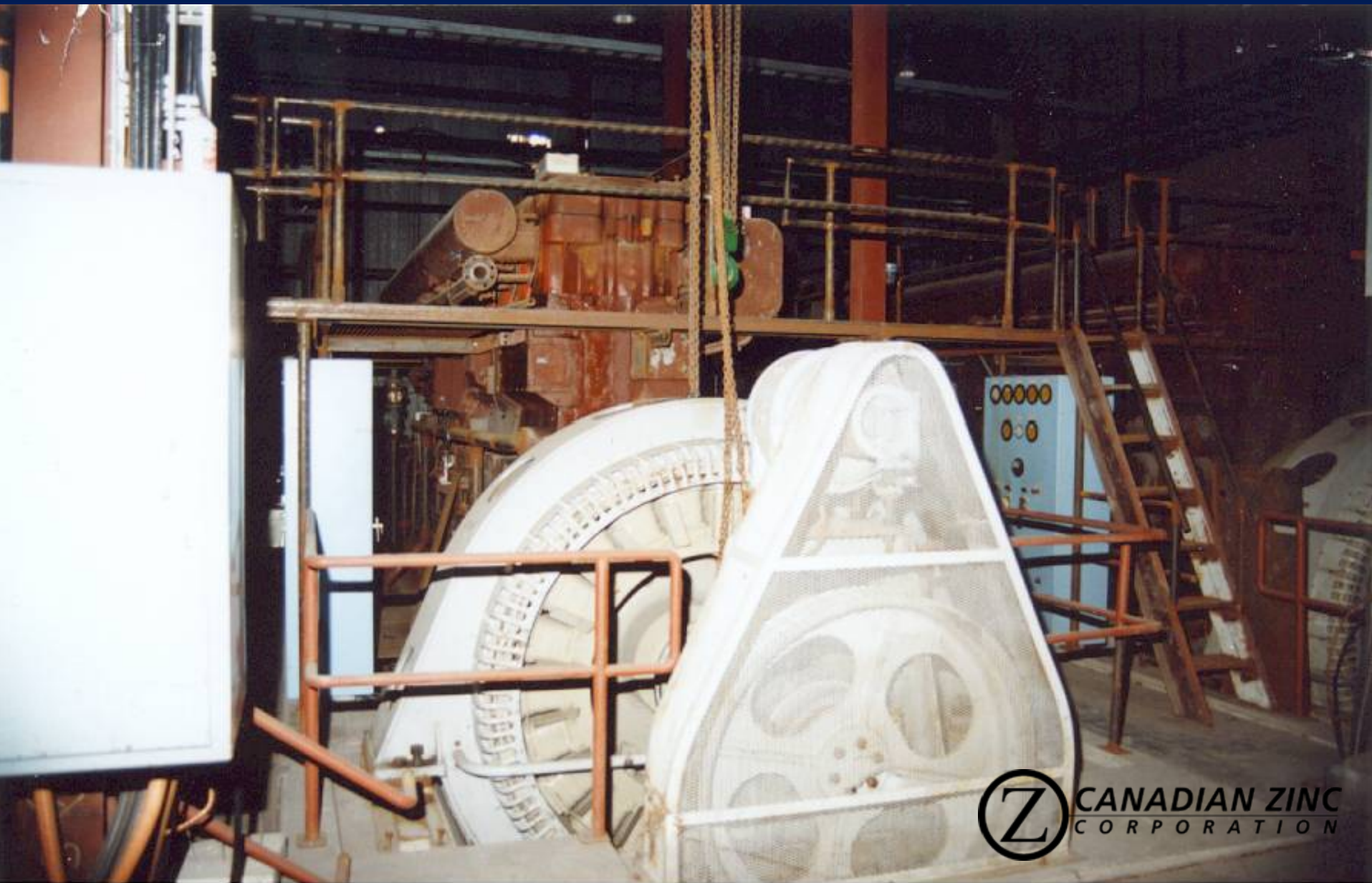
- **Air Quality**
- **Water Quality and Fish**
- **Wildlife and Habitat**
- **Cumulative Effects**

# Air Quality and Mitigation

## ■ Mine

- **Dust (suppression)**
  - Roads and Airstrip
  - Temporary tailings storage
- **Gases (reduced in new models)**
  - Power generation
  - Incinerator

# Old 1150 kw Generators (4)



# New 1566 kw Generators (3)



# Old Incinerator



# New Incinerator



# Air Quality

## ■ Transfer Facilities

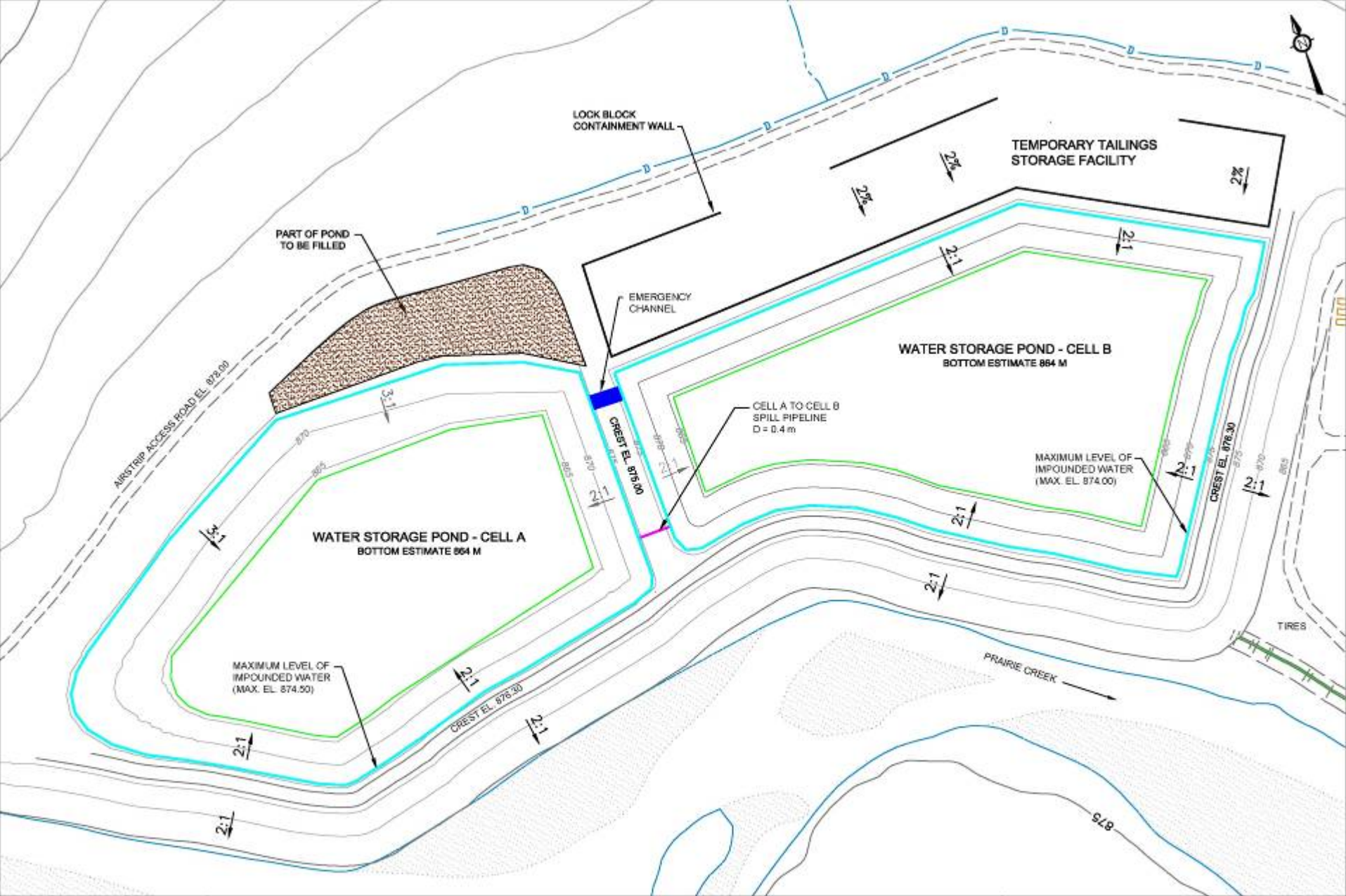
- Dust
  - None, winter
- Gases
  - Only small gensets



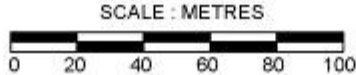
# Water Quality and Fish

## ■ Mine - Operations

- Mine water storage and recycle to Mill
- Mill and excess mine water treatment
- Same runoff management system
- Waste Rock Pile seepage collection
- Fuel spill prevention and response
- SNP and EEM



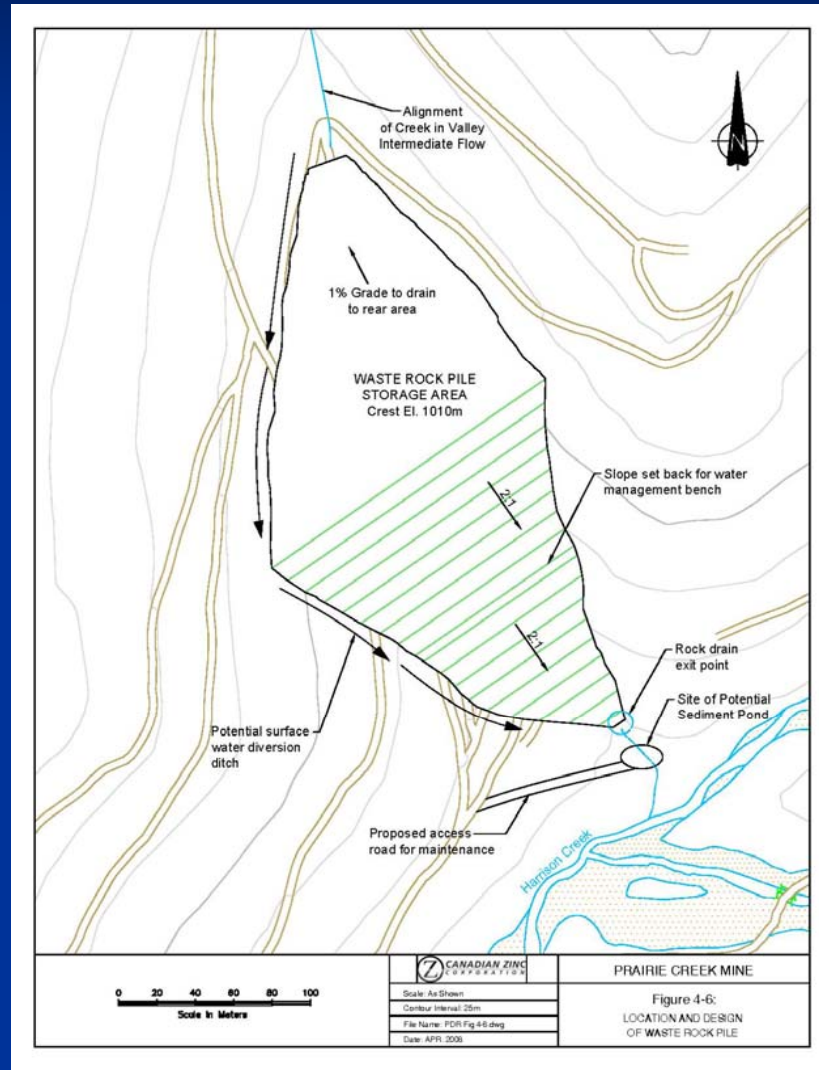
Date:	MAY 2008
Drawn By:	CH
Scale:	As Shown
Drawing:	PDR Fig 4-9.dwg

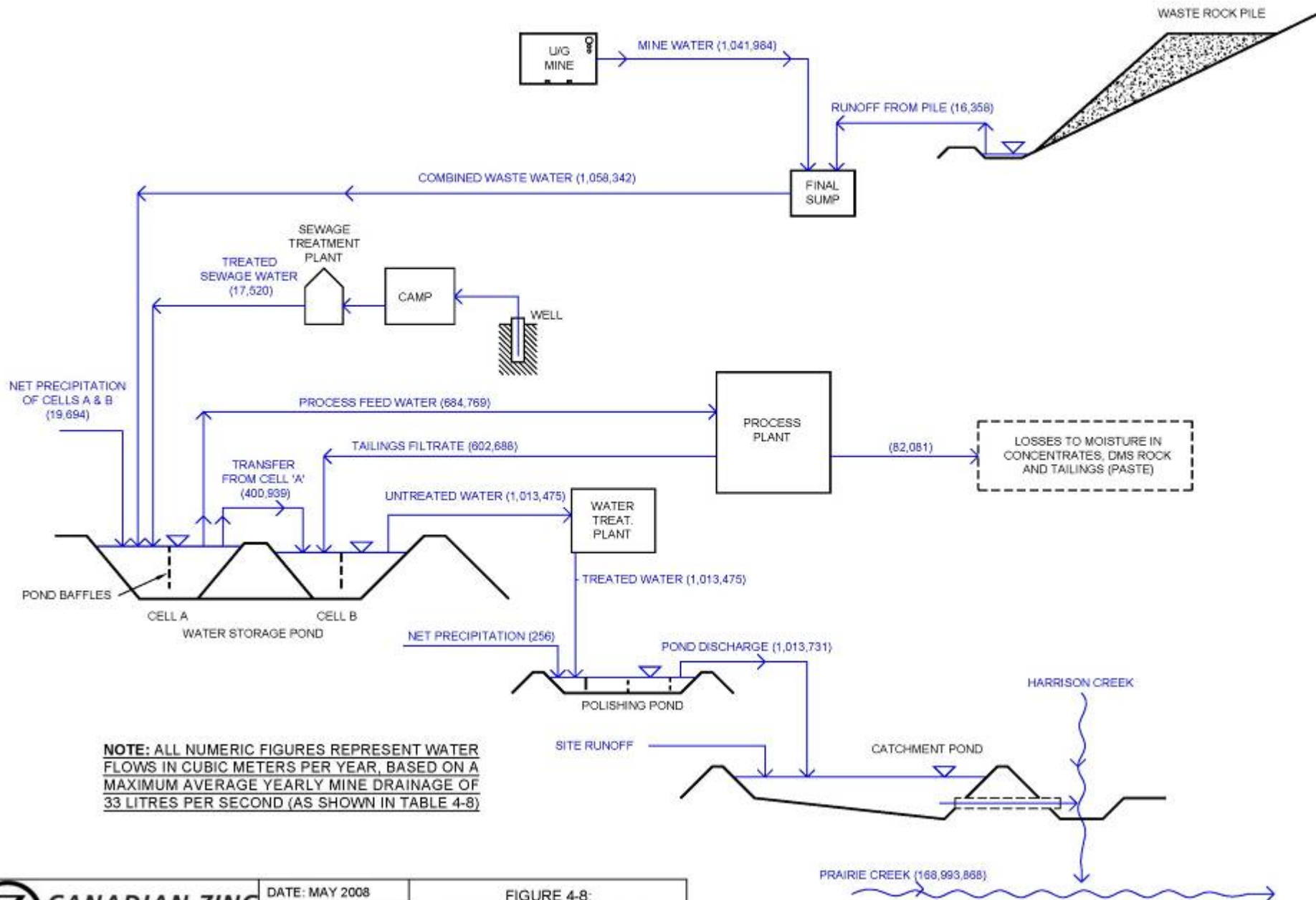


PRAIRIE CREEK MINE

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

# Waste Rock Pile





**NOTE:** ALL NUMERIC FIGURES REPRESENT WATER FLOWS IN CUBIC METERS PER YEAR, BASED ON A MAXIMUM AVERAGE YEARLY MINE DRAINAGE OF 33 LITRES PER SECOND (AS SHOWN IN TABLE 4-8)

# Water Quality and Fish

## ■ Mine - Closure

- Mine groundwater
- Cover for Waste Rock Pile

# Water Quality and Fish

- **Transfer Facilities**
  - **Frozen conditions**
  - **Spill prevention and response**
  - **Seasonal closure**

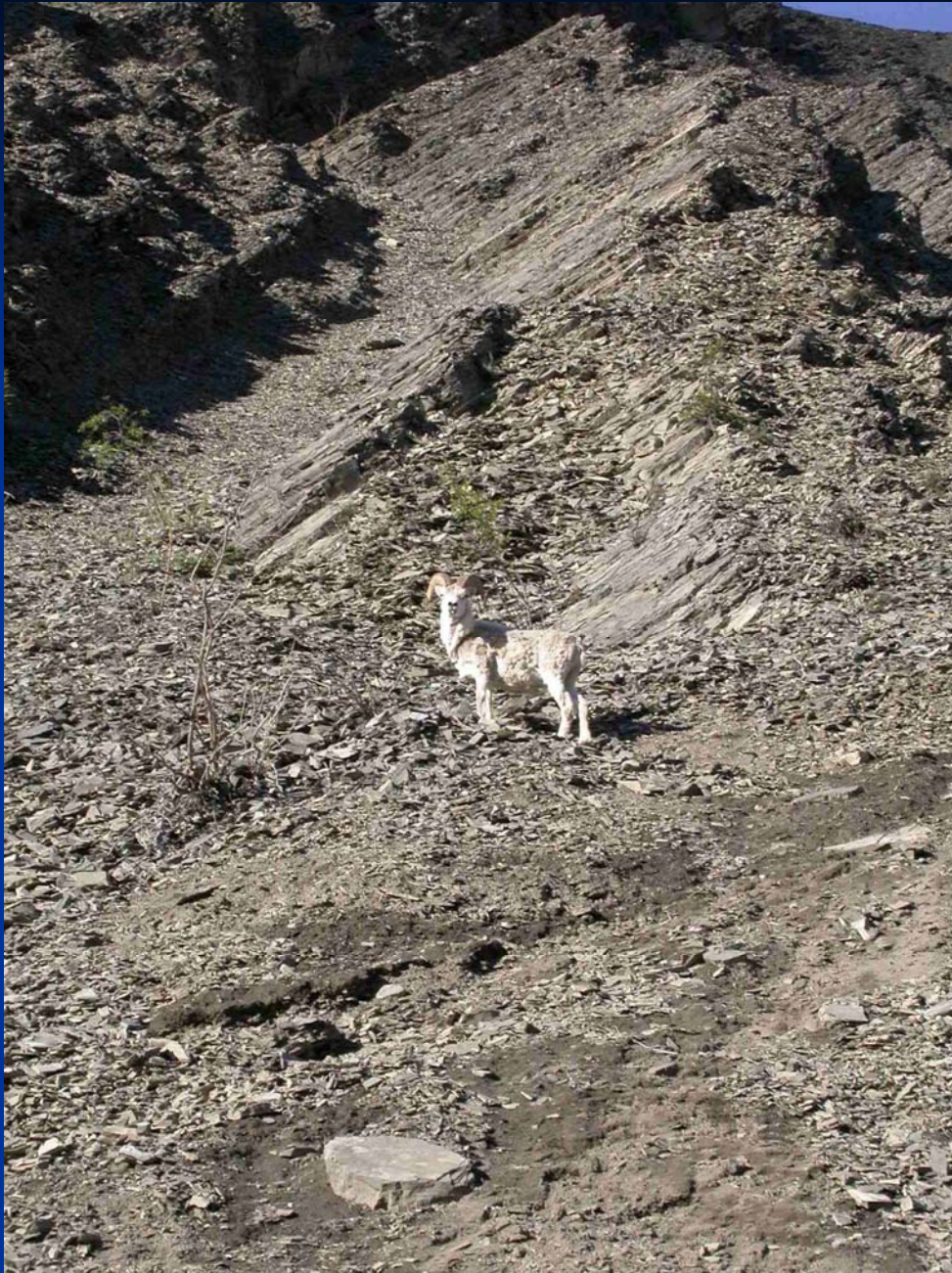
# Wildlife and Habitat

## ■ Mine

- 2006 survey
- Sighting log
- Bear awareness
- Project changes from Cadillac  
not significant







# Wildlife and Habitat

- **Transfer Facilities**
  - **April 2007 survey, limited numbers**
  - **Very limited areas**
  - **Seasonal use only**
  - **Seasonal closure, removal of attractants**

# Cumulative Effects

- **Mine Water Discharge**
  - **No treatment prior to 2006**
  - **Treatment 2006-2008**
  - **Similar treatment of Mine and Mill water during operations**
  - **Univ. of Saskatchewan/Parks Canada studies**



**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