Dessert Lake Uranium Project

An Eastern Athabasca Basin Target in the Northwest Territories?

- XTM – TSXV Project Presentation

Q1 2026

Project Overview
Dessert Lake Basin Opportunity

Transition Metals

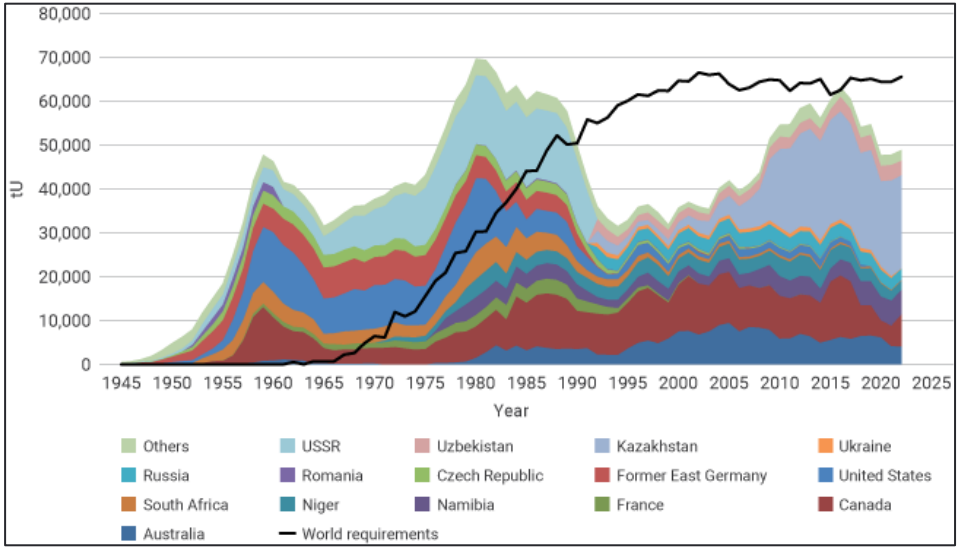
- **Dessert Lake Basin** is a recognized (GSC-2007) **Mesoproterozoic red bed sandstone basin**.
- The basin is intersected by the **Wopmay Fault** – a **crustal structure** that hosts numerous root uranium vein deposits along its length.
- Basin features support a geological environment which is **analogous to the "P-2 Fault" within the Athabasca Basin**.
- Potential exists for **redox sensitive** and **unconformity-type mineralization** along the basal unconformity and in proximity to crustal-scale fault intersecting both the basement, basin, overlying cover.
- **Field work** and **core logging** (Anglo American) have **confirmed the existence of Proterozoic red beds at shallow, drill accessible depths** below thin Phanerozoic cover.
- Transition Metals holds rights to any staked claims within Prospector's Licenses covering a portion of the region prospective for uranium mineralization.

Global Demand for Uranium

Increasing with Demand for Clean Energy

- World Nuclear Association projects a **28% increase demand for uranium** between 2023-2030.
- Nuclear has key role to play in achieving global decarbonization goals as the **"cleanest & greenest"** source of reliable baseload power with the **lowest CO_2 emission** per energy unit generated.
- Demand grows as **planning and construction of new nuclear reactors** around the world continues to increase.
- At the 2024 COP29 conference, **31 countries** signed on to **triple nuclear energy capacity** out through 2050.

World uranium production and reactor requirements from 1945-2022

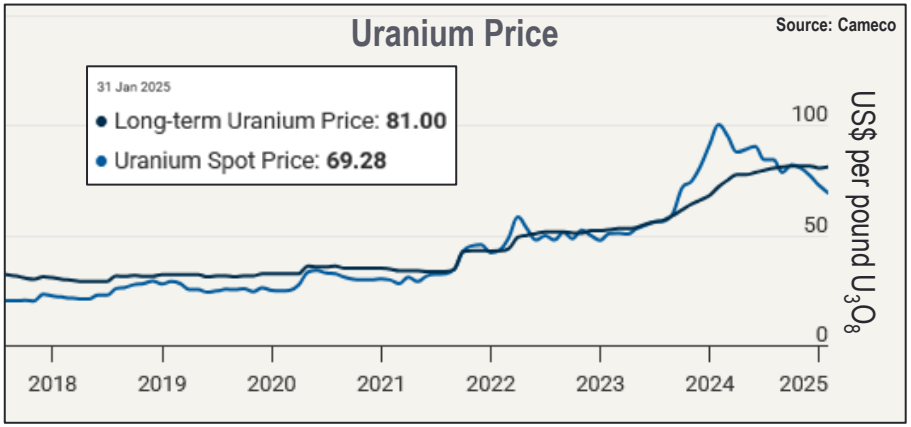


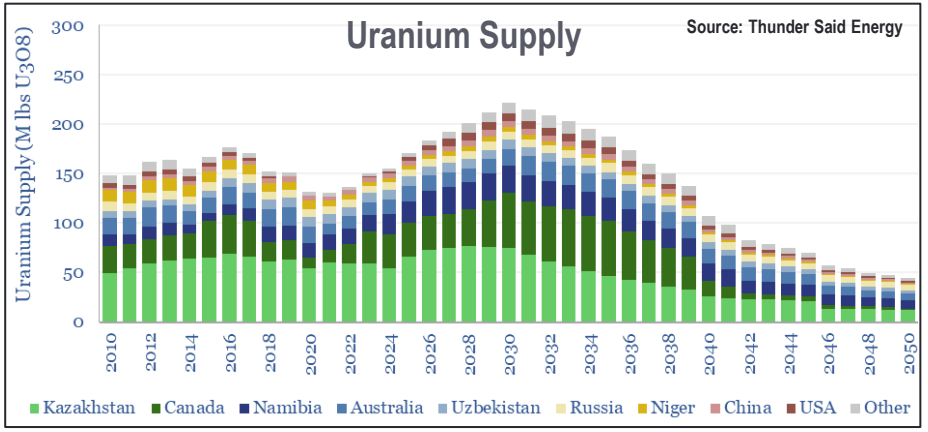
Source: OECD-NEA, IAEA, World Nuclear Association

Uranium Supplies
Not Enough to Meet Demand

Transition Metals

- Current supplies are **not enough** to meet the growing global demand.
- By 2040, there could be a cumulative **1.1-billion-pound deficit in uranium**.
- Prices within the next few years are predicted to jump between **US$150-200** per pound.
- Globalization is increasingly being re-evaluated, with national security and environmental concerns driving a shift towards **regional supply chains and localized production**.

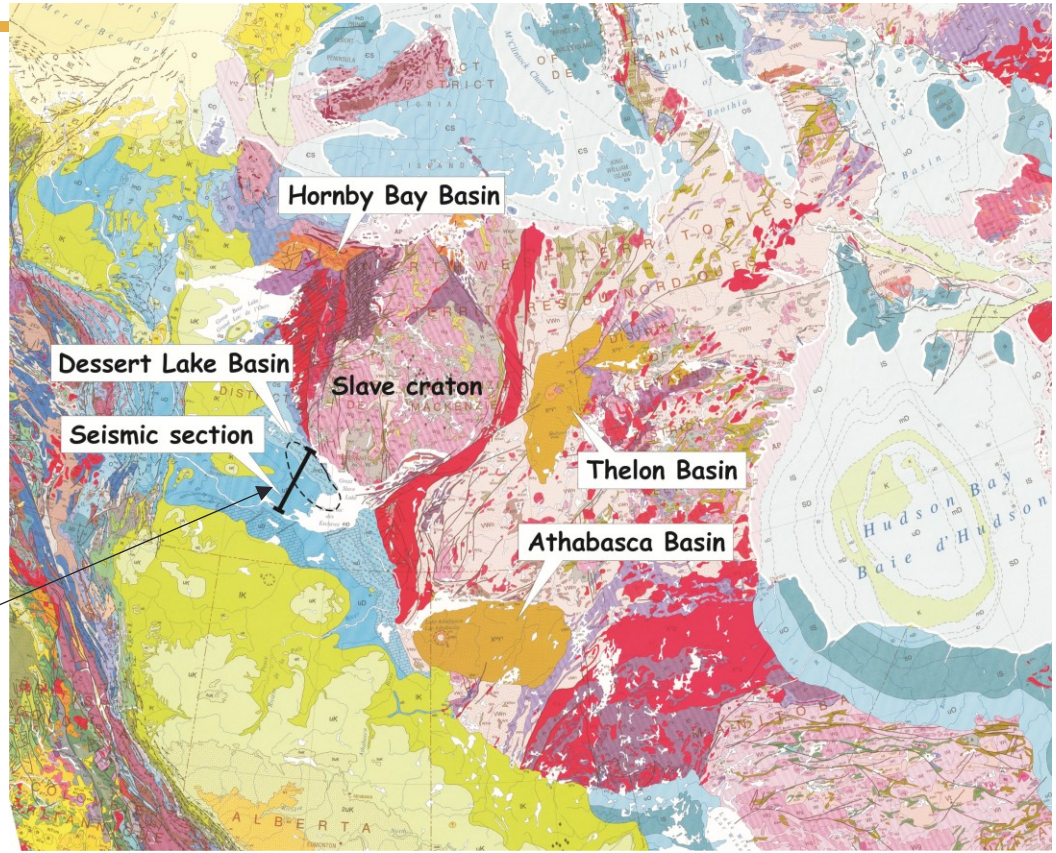




Regional Basins
Within the Northern Canadian Shield

Transition Metals

- Map of the northwestern Canadian Shield, showing the Slave Craton with platformal cover to the southwest.
- Proterozoic sedimentary basins, and the relevant part of the SNORCLE seismic profile are highlighted in subsequent slides.
- Thin dashed line outlines approximate extent of the known, buried, Dessert Lake Basin.

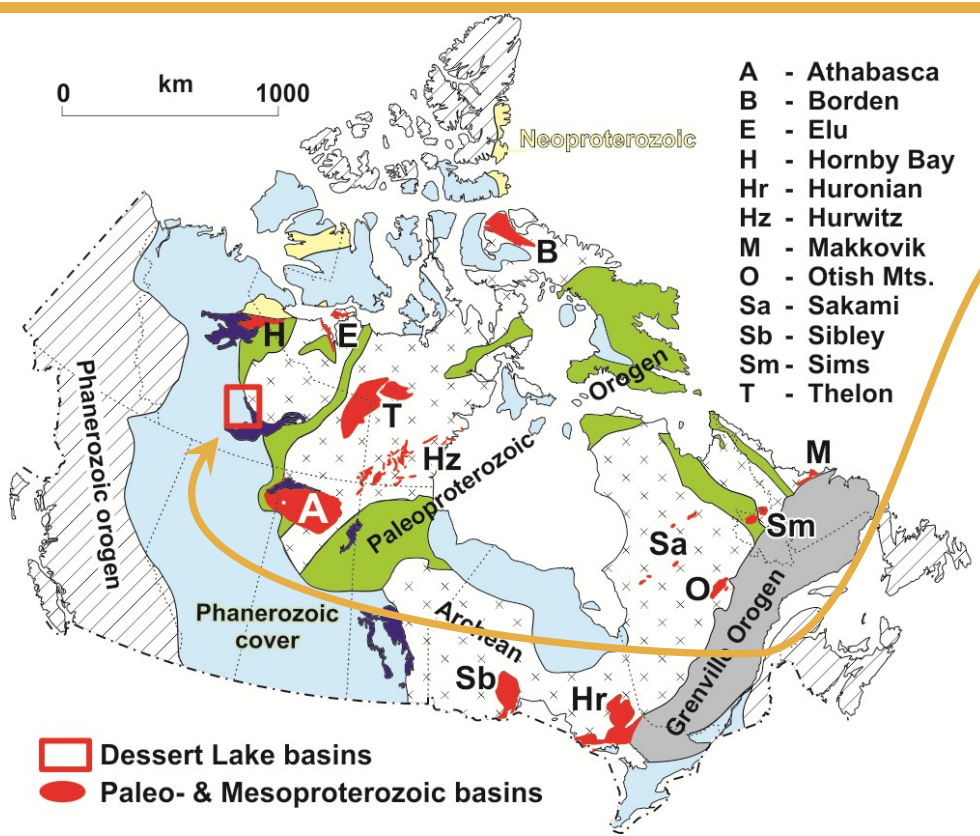


Wheeler et al., 1996

Hidden Mesoproterozoic Basin

Possible New Athabasca-like Basin?

Transition Metals



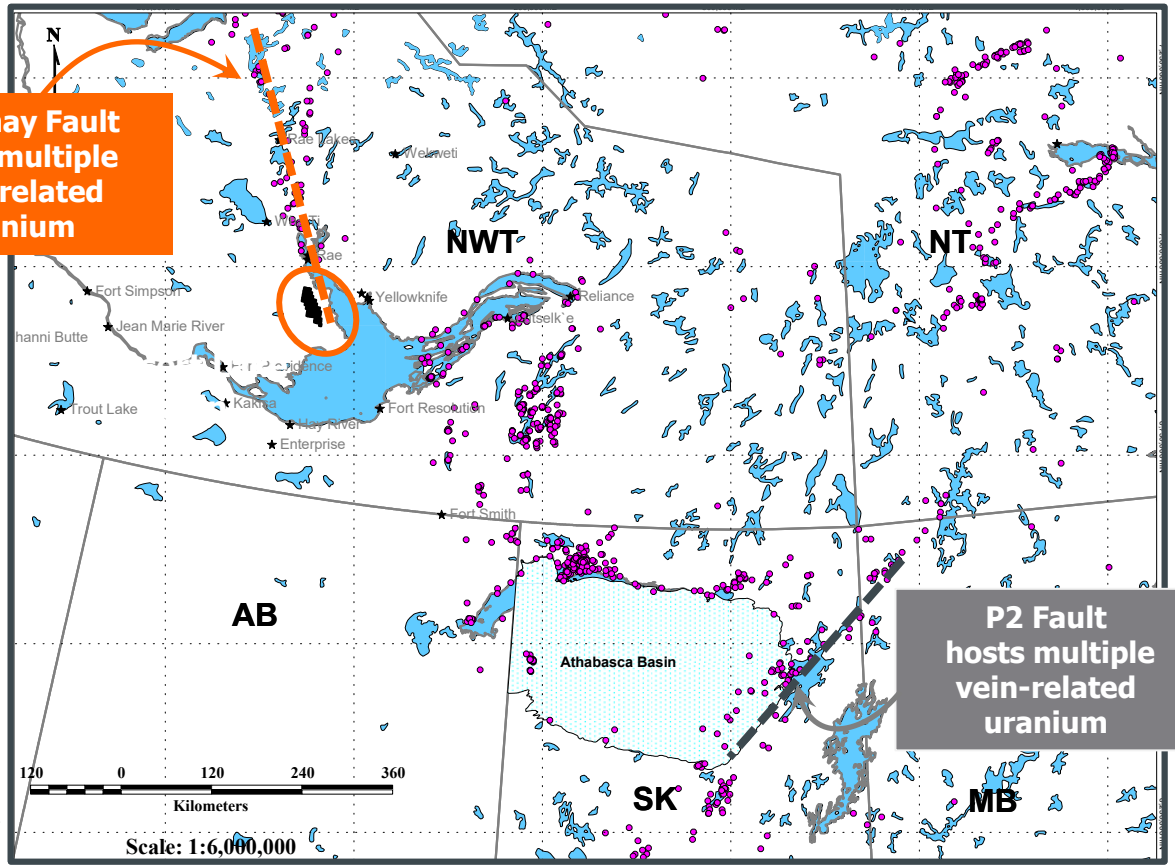
Recognized Mesoproterozoic Basin hidden under a thin Phanerozoic cover

- Red bed sandstone basin discovered by the Geological Survey of Canada in 2007
- Located just west of the Great Slave Lake, approximately 20 km south of the Yellowknife Highway

Uranium Occurrences

Structural Similarities to Major Athabasca Structures

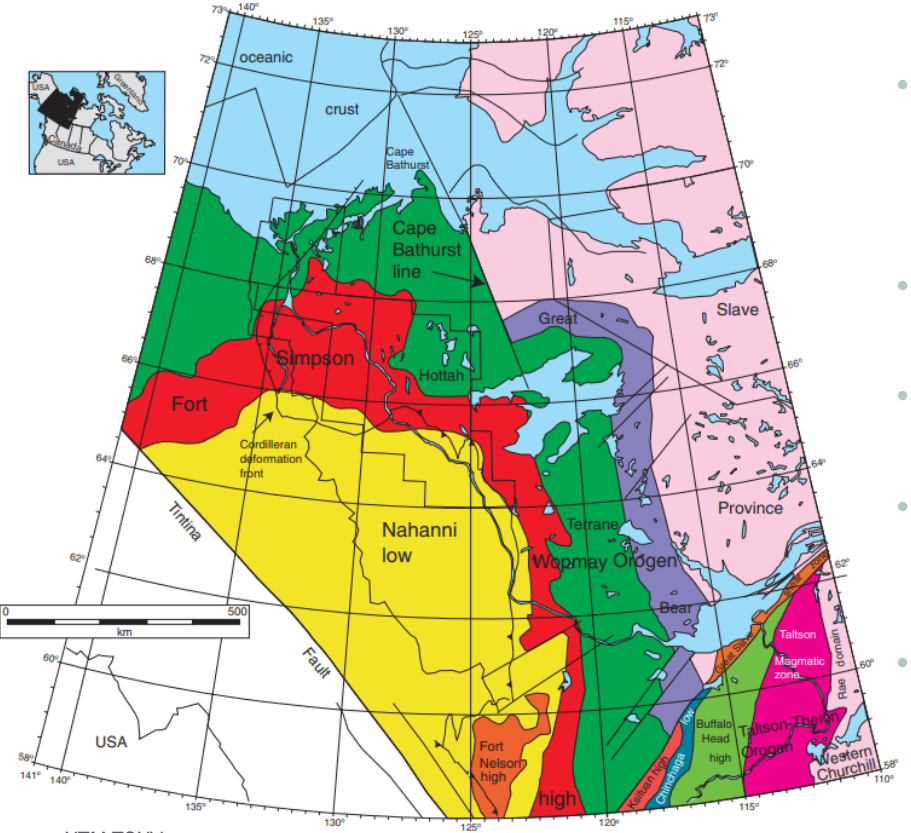
Transition Metals



The **Athabasca Basin** is believed to contain roughly 1/3 of the world's known uranium resources.

Could the **Dessert Lake Basin** along with the **Wopmay Fault system** be another buried Athabasca Basin?

Regional Geology
of the Northwestern Canadian Shield

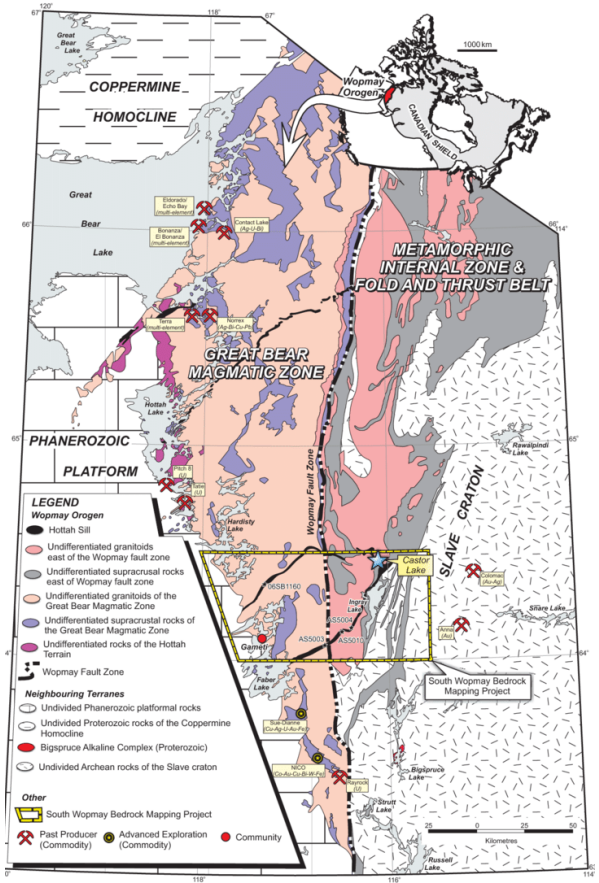


XTM:TSXV

Accreted terranes of the NW Canadian Shield (Cook and MacLean, 2004)

- The Archean Slave Craton outcrops east of Dessert Lake and is the basement to the Proterozoic and Phanerozoic sedimentary rocks in the project area – it is dominated by supracrustal greenstone-turbidite sequences and uraniferous felsic plutonic suites.
- Erosion of these suites could have provided uranium to the potential mineralizing systems in the Dessert Lake Basin.
- The Bear Province is composed of the Coronation Margin, Hottah Terrane, and Great Bear Magmatic Zone of the Wopmay Orogen.
- The Great Bear Magmatic Zone (GBMZ) is a continental, felsic volcanic-plutonic zone preserved on the west side of the Wopmay Fault Zone.
- The GBMZ rocks are unconformable over the Coronation Supergroup metamorphosed siliciclastic and carbonate sediments, and the basement rocks of the Hottah Terrane.

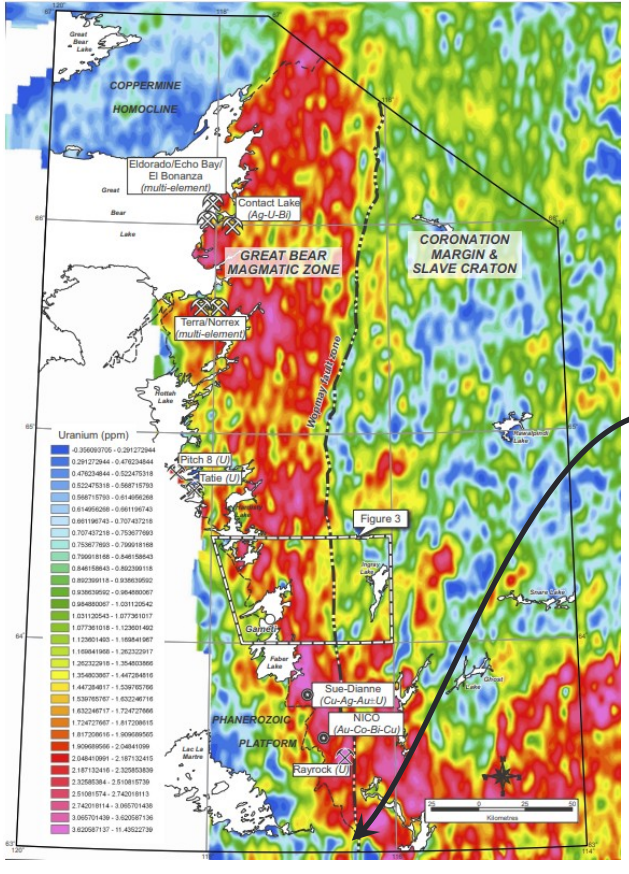
Regional Geology
of the Northwestern Canadian Shield



- The Wopmay Fault Zone is an extensive right-lateral, north-south trending tectonic break over a strike length of > 500km; caused by deformation resulting from the accretion of the Fort Simpson and Nahanni Terranes.
- In the north, the Wopmay Orogen is unconformably overlain by the Paleo- to Mesoproterozoic Hornby Bay and Dismal Lakes groups, and it is proposed the Proterozoic Dessert Lake Basin sediments may be the equivalent sedimentary package located in the southwest.
- Phanerozoic sedimentary rocks unconformably overlie the Wopmay Orogen basement, Slave Craton basement, and Proterozoic strata.
- Over the Dessert Lake Basin sandstones, there is a cover of relatively undeformed Paleozoic sediments comprising basal quartz sandstone, intercalated siltstones and mudstones, dolomites, limestones, etc; ages ranging from Cambrian through Devonian.

Geology of Wopmay orogen, NWT. Past-producing mines and significant deposits (modified after Hoffman and Hall, 1993).

Regional Geology
of the Northwestern Canadian Shield



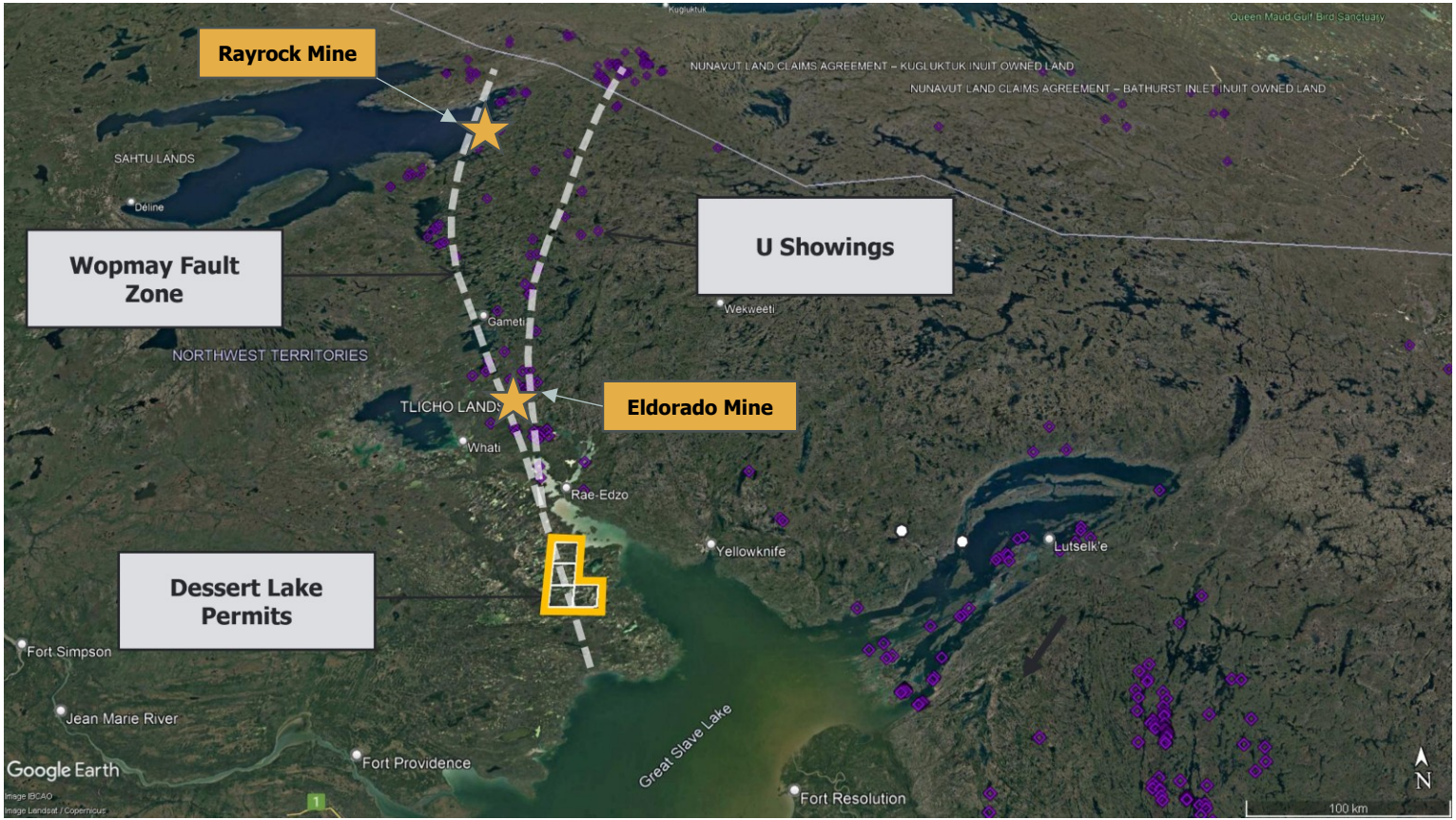
- Most uranium occurrences in the Great Bear magmatic zone are associated with subvolcanic porphyries and granites that are naturally enriched in uranium.
- The mineralization likely formed through **remobilization of uranium** from these host rocks or from the same processes that enriched them and may have supplied uranium to younger basins that unconformably overlie it, such as those within the Coppermine homocline and Leith Peninsula areas.
- These basins, along with possible similar ones beneath Paleozoic cover (**Dessert Lake Basin**), present potential for undiscovered unconformity-related or sandstone-hosted uranium deposits.
- These units form the basement to younger sedimentary rocks that also contain unconformity-type and sandstone-hosted uranium prospects.
- Similar buried units to the west may host undiscovered, or “blind,” uranium deposits beneath Phanerozoic cover.

Equivalent uranium radio-element map of Wopmay orogen and adjacent terranes (modified from Ootes et al., 2013).

Regional Uranium Showings

Associated with the Wopmay Fault Zone

Transition Metals



- Historic uranium production from vein deposits along the Wopmay Fault are interpreted to be the eroded roots of unconformity related deposits.
- Opportunity exists for world-class deposits where the **Dessert Lake sandstone basin has not been eroded.**

Eldorado Mine
Historic Uranium Producers

- Pre-1930s, most permanent NWT communities began as fur trading posts or Catholic missions.
- The first major mining operation in the NWT was discovered by Ontario prospector Gilbert LaBine – his mineral claim became the Eldorado Mine (also known as “Port Radium”) and sparked a mining rush in 1932-1933.
- The mine is located on the east shore of Great Bear Lake.
- Radium, uranium, and silver were extracted during several working periods between 1932 and 1982 (Five-element vein style).
- In 1942, the company secured a contract with the US military to supply uranium for the Manhattan Project.
- The site was decommissioned per local standards in 1984.
- Uranium ore deposits occur within structurally controlled veins and stockworks cutting through Early Proterozoic Echo Bay Group volcanic and sedimentary rocks – the age of mineralization is about 1,400 Ma.

Rayrock Mine
Historic Uranium Producers

- The Rayrock Mine is located 169 km NW of Yellowknife.
- Deposits were hosted in giant quartz veins up to 60 m wide and quartz stockworks, with age of formation of 517 +/- 80 Ma.
- American Yellowknife Mines Ltd. explored the site with detailed Geiger surveys and extensive trenching in the early 1950s.
- In 1954 the company reorganized as Rayrock Mines Ltd and completed over 3,000 m of surface diamond drilling.
- Underground development began in 1955, and the mine opened in 1957, but quickly shut in 1959 due to lack of ore.
- In 1987, the buildings of the town and mine were demolished.
- Environmental cleanup began in 1996, and continued remediation was undertaken due to radioactive tailings that were deposited on land and flowed into nearby lakes.

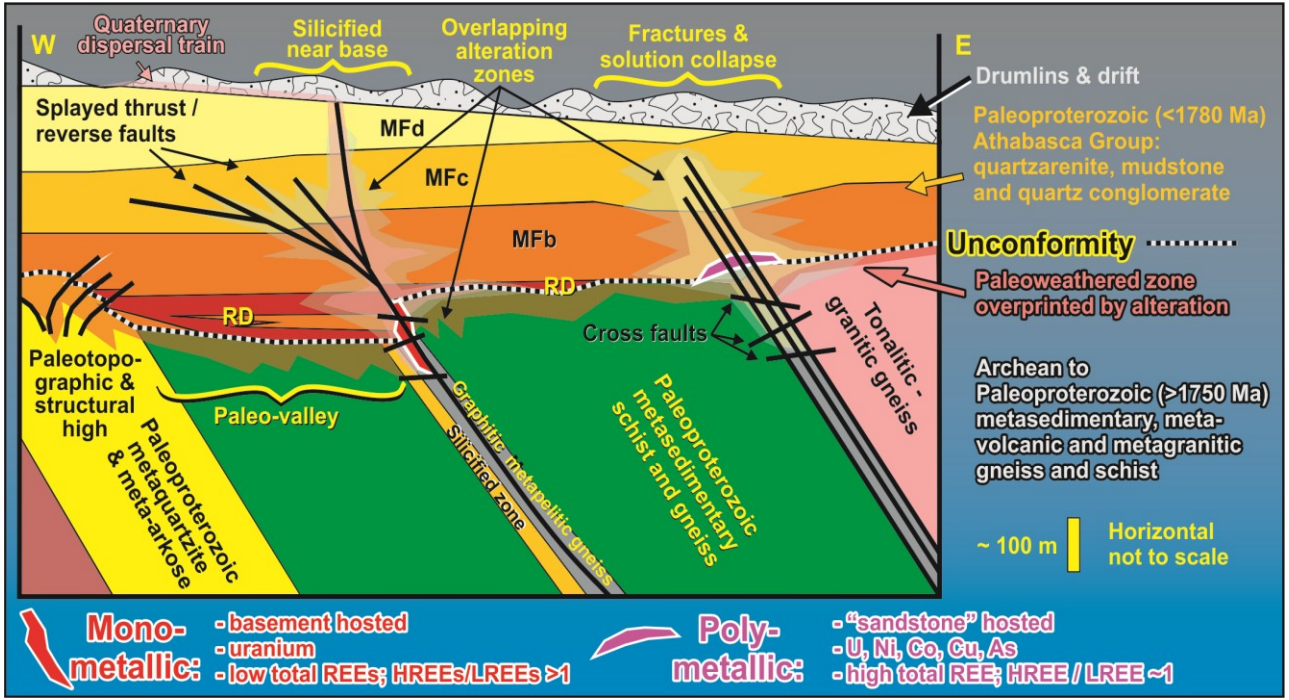
Rayrock Mine Site (1957)

Exploration Criteria

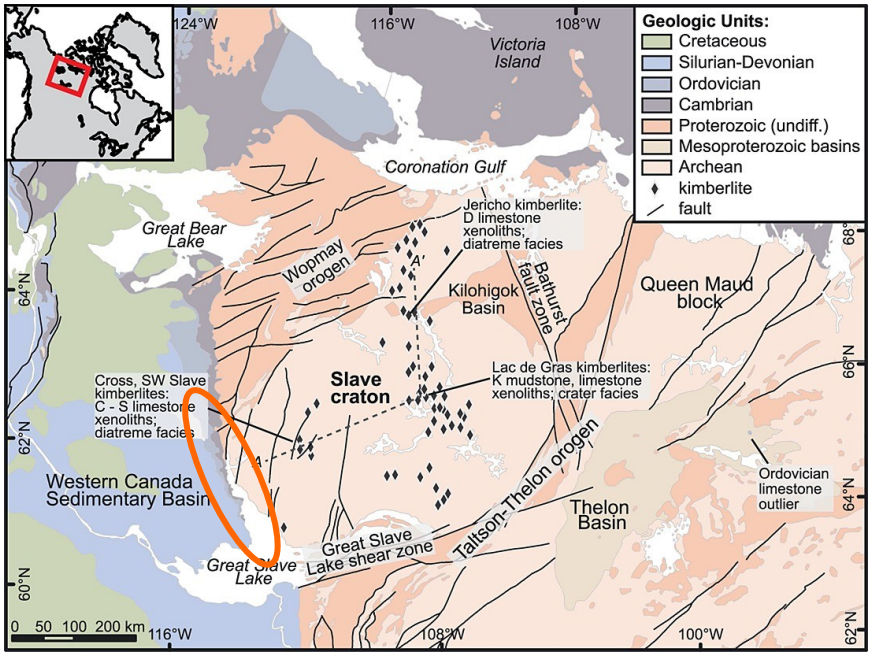
For a World-Class Uranium Deposit

Transition Metals

- Large regional sedimentary basin containing **red bed sandstone**
- **Unconformity** between the Archean and Mesoproterozoic
- Large, significant, re-activated **crustal structures** in the basement
- Footwall **graphitic meta-pelites** (reducing agent)
- Significant **alteration zones** along faults and unconformity



Dessert Lake Basin
Geology



Simplified geologic map of the northwestern Canadian shield (after Wheeler et al., 1996, modified from Ault et. al., 2013).

- The area is covered by glacial lake sediments and Phanerozoic sedimentary layers – but these Phanerozoic platformal cover rocks are geophysically-transparent.
- One outcrop of Proterozoic Dessert Lake sandstone has been found on the south shore of the North Arm of Great Slave Lake, between Wrigley Point and Spruce Point.
- The red-bed Proterozoic sandstone basin appears to be undeformed to mildly deformed.
- Detrital zircon dating and crosscutting Mackenzie dikes weakly constrain the age of the Dessert Lake red-bed sandstones to between 1820 and 1270 Ma.
- Far-field effects from major tectonic events in the region could have influenced fluid flow and mineralization within the basin.
- Prescence of uraniferous granites of the Slave Craton and volcanic basement rocks proximal to the Dessert Lake Basin would have been available as sources of uranium.

2025 Exploration Work

Brief Review & Sampling of Historic Drill Core

- Transition Metals employees recently spent 6 days at the Northwest Territories Geological Survey core library to examine drill core from the project area.
- 6 drillholes were reviewed, with magnetic susceptibility and radiometric readings taken systematically downhole.
- 71 samples were collected for further analytical work including lithogeochemistry, SWIR, petrography, resistivity, and density testing.

L: Core laid out to be examined.
R: Example of Phanerozoic dolomites, mudstones, shales.
Below: Example of quartz sandstones in contact with granite basement, clay alteration.

Previous Exploration Work
Within the Dessert Lake Project Area

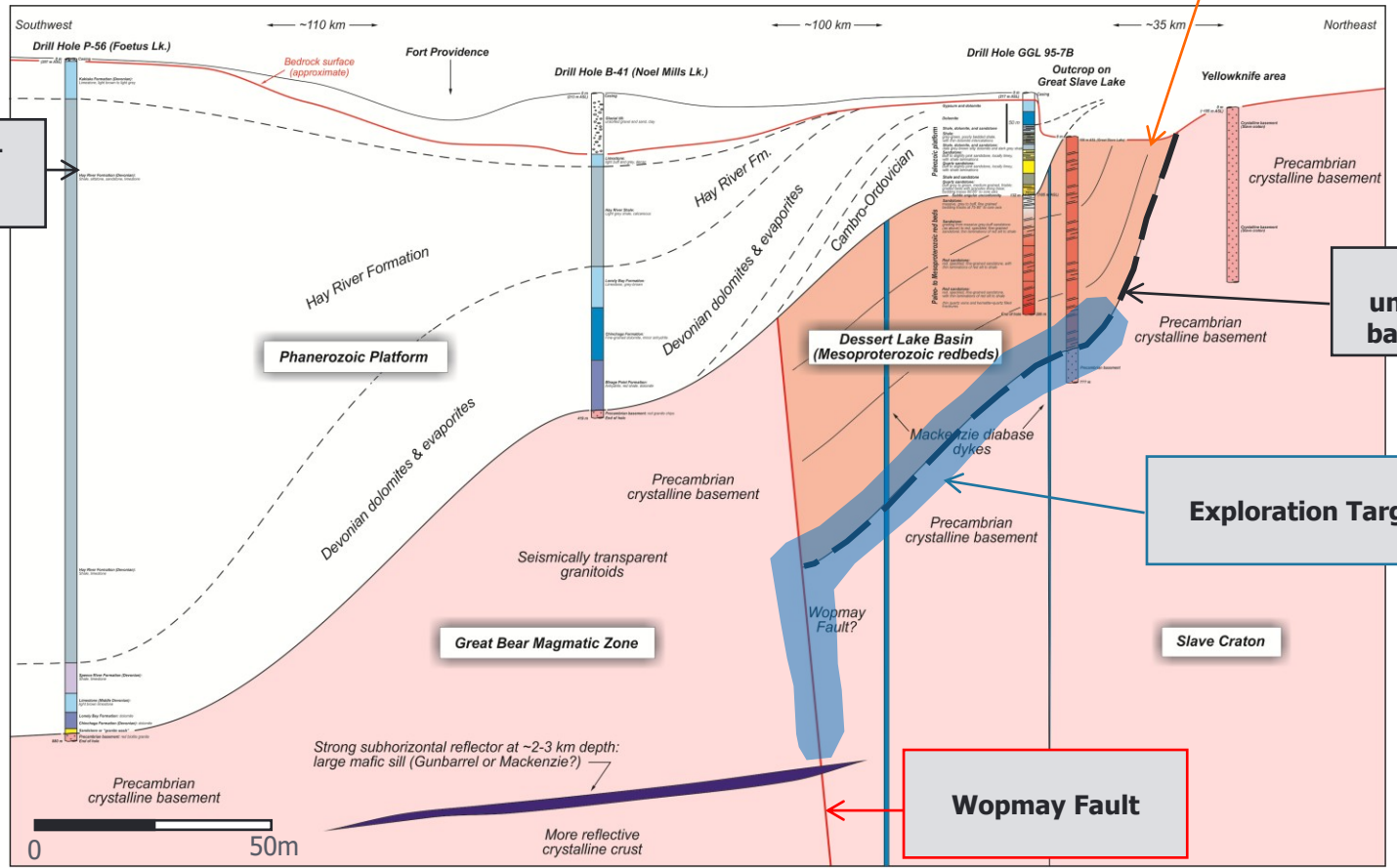
Transition Metals

- Overall, the Dessert Lake Basin has seen limited exploration work, primarily for diamonds, base metals, and IOCG gold.
- Most exploration work has consisted of geophysics followed up by minor programs of diamond drilling.
- 1990-1991: Cominco completed 72 km of ground gravity along with airborne magnetics over Ched and Bucto claims
- 1992: Cominco drilled 2 vertical holes totaling 367.6 m to test geophysical anomalies
- 1993-1995: Slave Diamond Syndicate/Gerle Gold completed ground and airborne magnetometer surveys and drilled 12 holes totaling 1,580.56 m to test magnetic anomalies for kimberlite
- 1995: Cominco drilled 1,413 m over two holes to test a gravity anomaly on Wrigley Point
- 2001: Far West Mining/BHP (strategic alliance) completed FALCON survey and drilled 18 holes totaling 5,168.8 m
- 2002: Allyn Resources completed ground magnetic and gravimetric surveys and drilled 1,112 m over four holes
- Anglo American staked the area in 2007
  - Completed three selective VTEM helicopter-borne surveys covering 8000 ha
  - Completed 1,365 m of drilling over two drillholes, one of which intersected Proterozoic red-bed sandstone

Schematic Cross Section

Section Within the Dessert Lake Basin

Transition Metals



Westward thickening Proterozoic red beds

P-56 & B-41 Oil and Gas DDHs

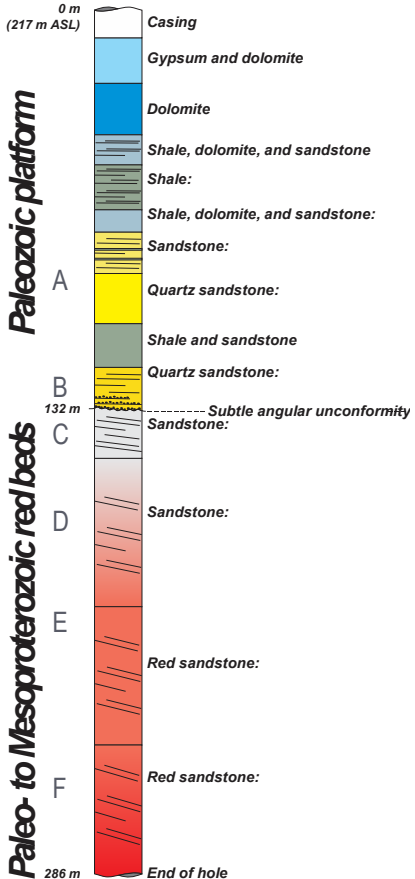
Trace of unconformity at base of red beds

Exploration Target

Wopmay Fault

Note: Significant vertical exaggeration.

Stratigraphic Column
Within the Dessert Lake Basin



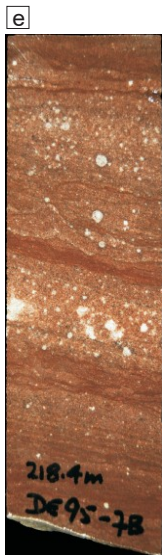
Cambrian sandstone

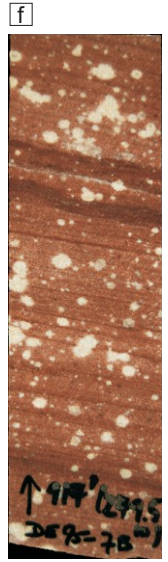
Unconformity

Proterozoic sandstone (bleached)

DDH: DE95-7B
Drilled by: Gerle Gold Ltd
Date: March 1995
Depth: 295.6m

Proterozoic red-beds





Anglo Drillhole: DLU-08-01

Redbed sandstones from 623.20-640.18m

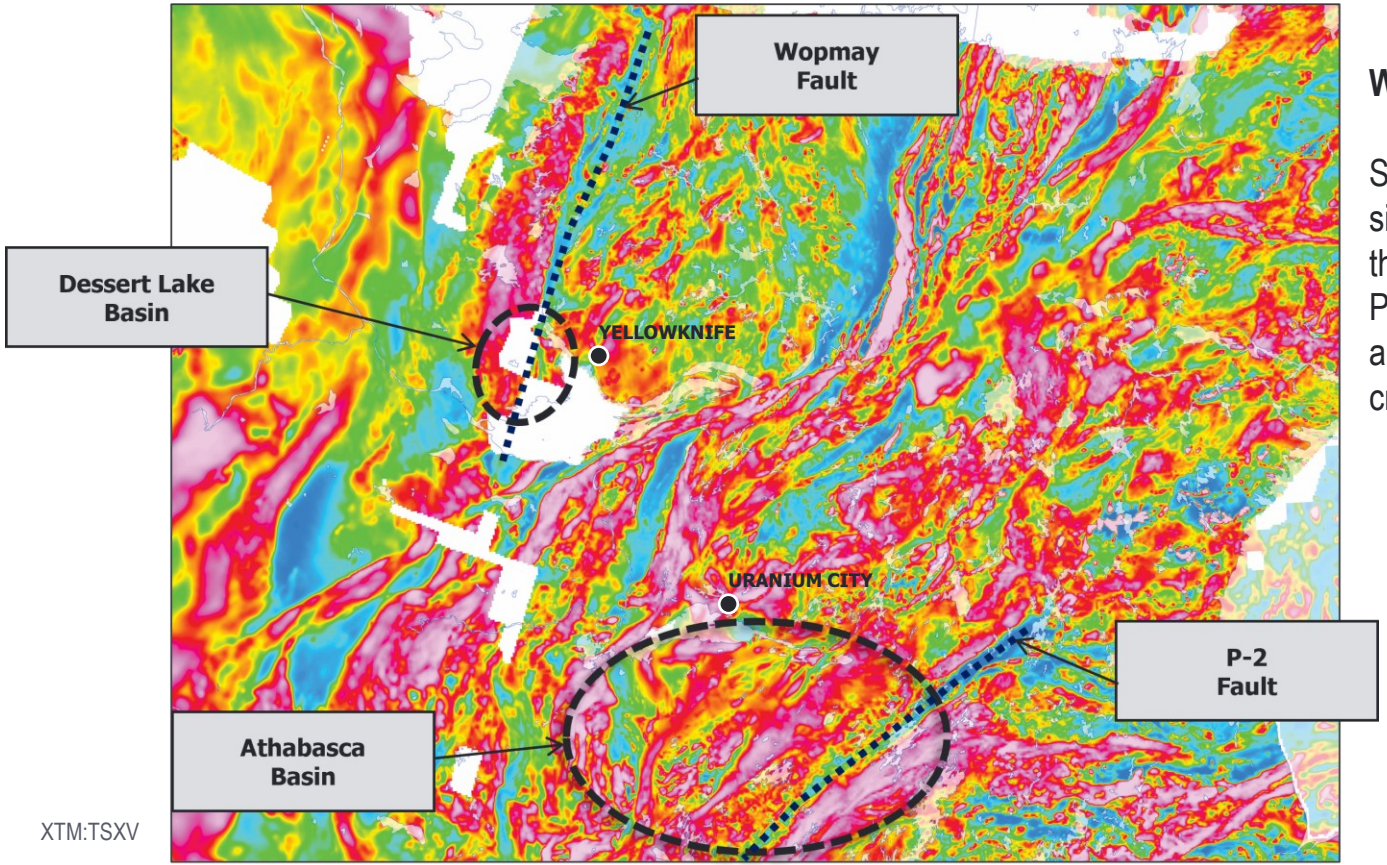
Dessert Lake Strata

The Dessert Lake strata variably show similarities to the Athabasca Group Fair Point Formation sandstone and the upper Wolverine Point Formation. The sediments are well cemented by silica +/- carbonate and are intruded by thick diabase sills.

Structural Similarities

Between Dessert Lake Basin & Athabasca Basin

Transition Metals



Wopmay Fault vs. P-2 Fault

Similar aeromagnetic low signatures (dark blue) due to the underlying Archean-Proterozoic metamorphism and alteration along regional crustal scale structures.

Dessert Lake Database

Various High-Quality, High-Resolution Products Available

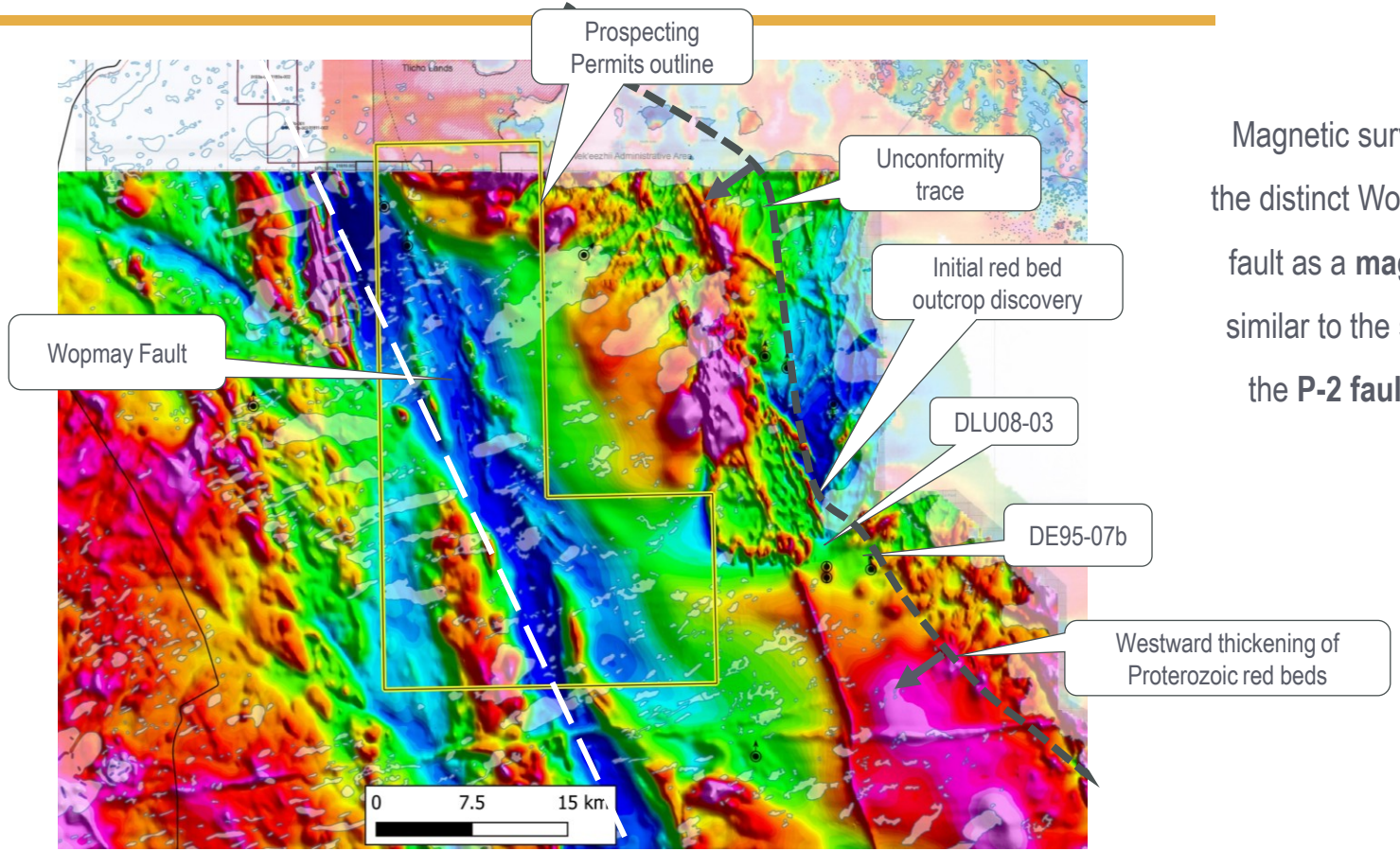
Transition Metals

- Various historic drillholes within the Dessert Lake Basin project area, drilled between 1992 and 2008:
  - Cominco – 1992 – 1 hole
  - Gerle Gold – 1995 – 10 holes
  - BHP/Far West Mining – 2001 – 18 holes
  - Allyn Resources – 2002 – 4 holes
  - Anglo American – 2008 – 2 holes
- Various geophysical products were produced:
  - Gerle Gold – Aeroquest
  - Anglo American – VTEM
  - Geological Survey of Canada – magnetics & gravity
- Select petrographic work on Dessert Lake sediments completed by Anglo American

High-Resolution Magnetics

Continue to Support Structural Similarities

Transition Metals



Magnetic survey defines the distinct Wopmay crustal fault as a **magnetic low**, similar to the signature of the **P-2 fault system**.

SNORCLE Reflection Seismic

Section Across the Dessert Lake Basin

Transition Metals

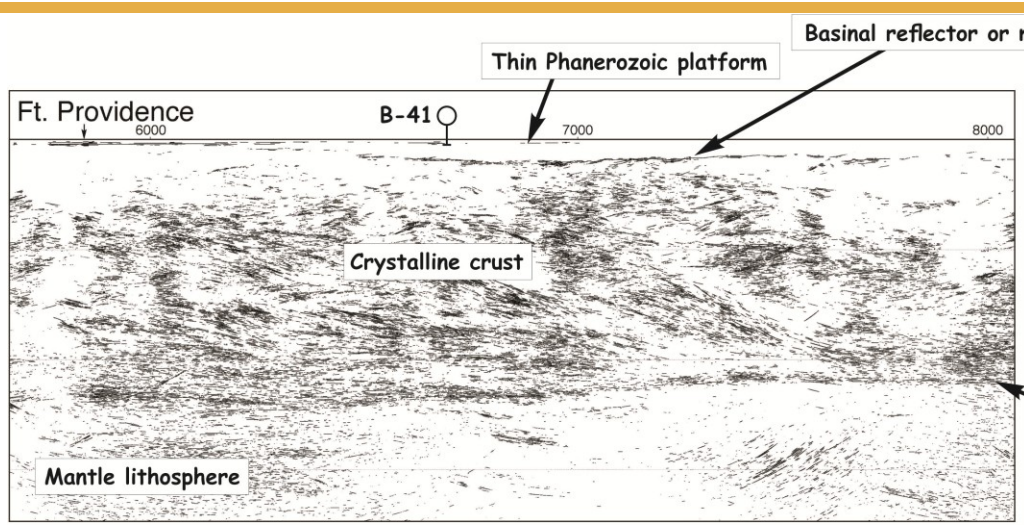


Figure 4: Relevant part of the SNORCLE reflection profile (Cook et al., 1999), between Rae-Edzo and Fort Providence, with our interpretation of the basinal reflector as as a shallow sedimentary basin remnant.

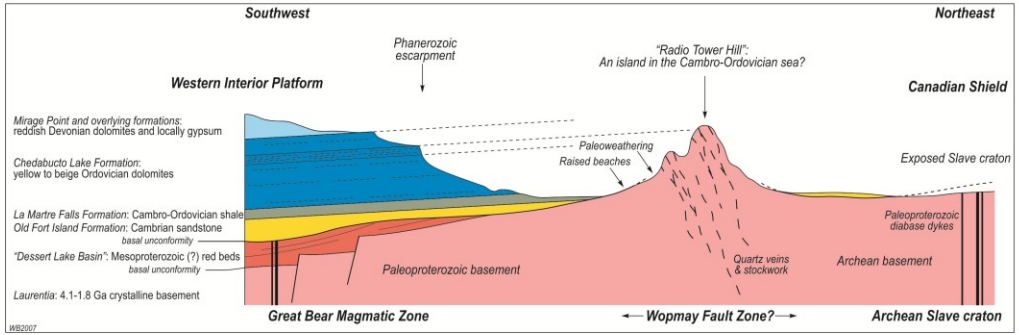


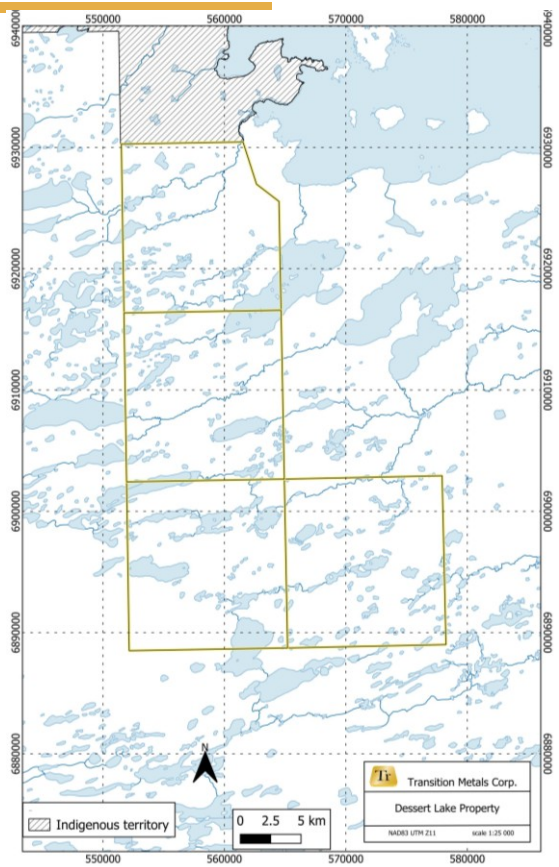
Figure 5: Schematic section from craton to platform (after Bleeker et al., 2007), illustrating the stratigraphic relationships, with an Athabasca-type basin outlier immediately underneath thin platformal cover.

Cook et al., 1999

Prospecting Permits

Grant Exclusive Rights to Stake Claims

- Prospecting permits cover **four NTS ¼ sheets** totaling **75,000 Ha**.
- Under the permits, Transition Metals has the **exclusive right to stake** claims within the area of the permits for a period of three years.
- Claim staking in the Northwest Territories is completed by **physically staking claims on the ground**.



Exploration Plans

Evaluating the Dessert Lake Opportunity

Transition Metals

Transition Metals is seeking a partner to jointly advance this district play.

Basin Architecture

- Detailed inversion of existing magnetic data
- Airborne MT survey
- Potential follow-up ground MT

Targeting

- Compilation and interpretation of data
- 3D modelling
- Target generation

Testing

- Diamond drilling

Mitigating Risk. Multiplying Opportunities.

Scott McLean HBSc., P.Geo.
CEO & Co-founder

smclean@transitionmetalscorp.com
9C – 1351 Kelly Lake Road
Sudbury ON P3E 5P5
Telephone: 705-669-1777