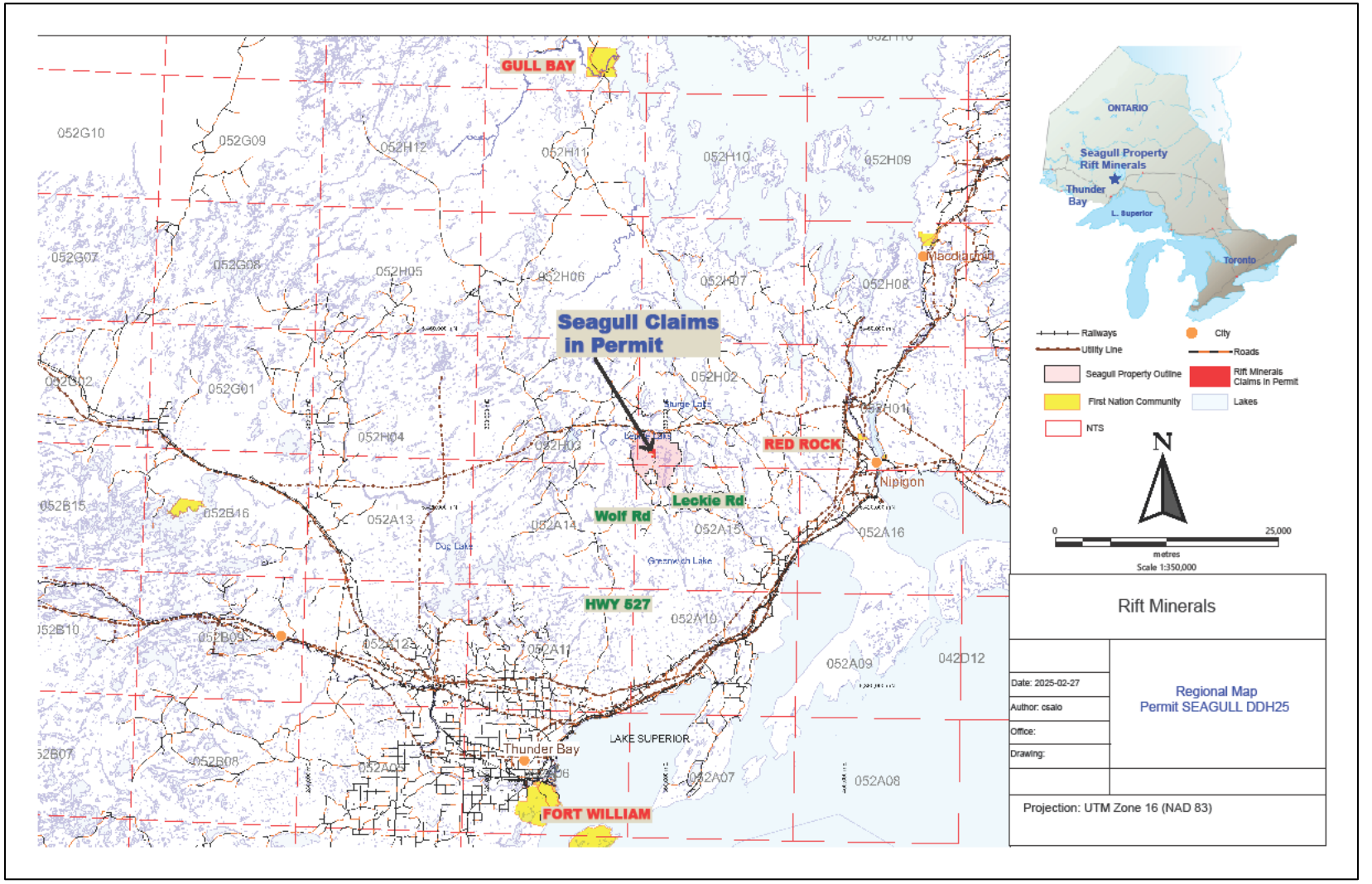
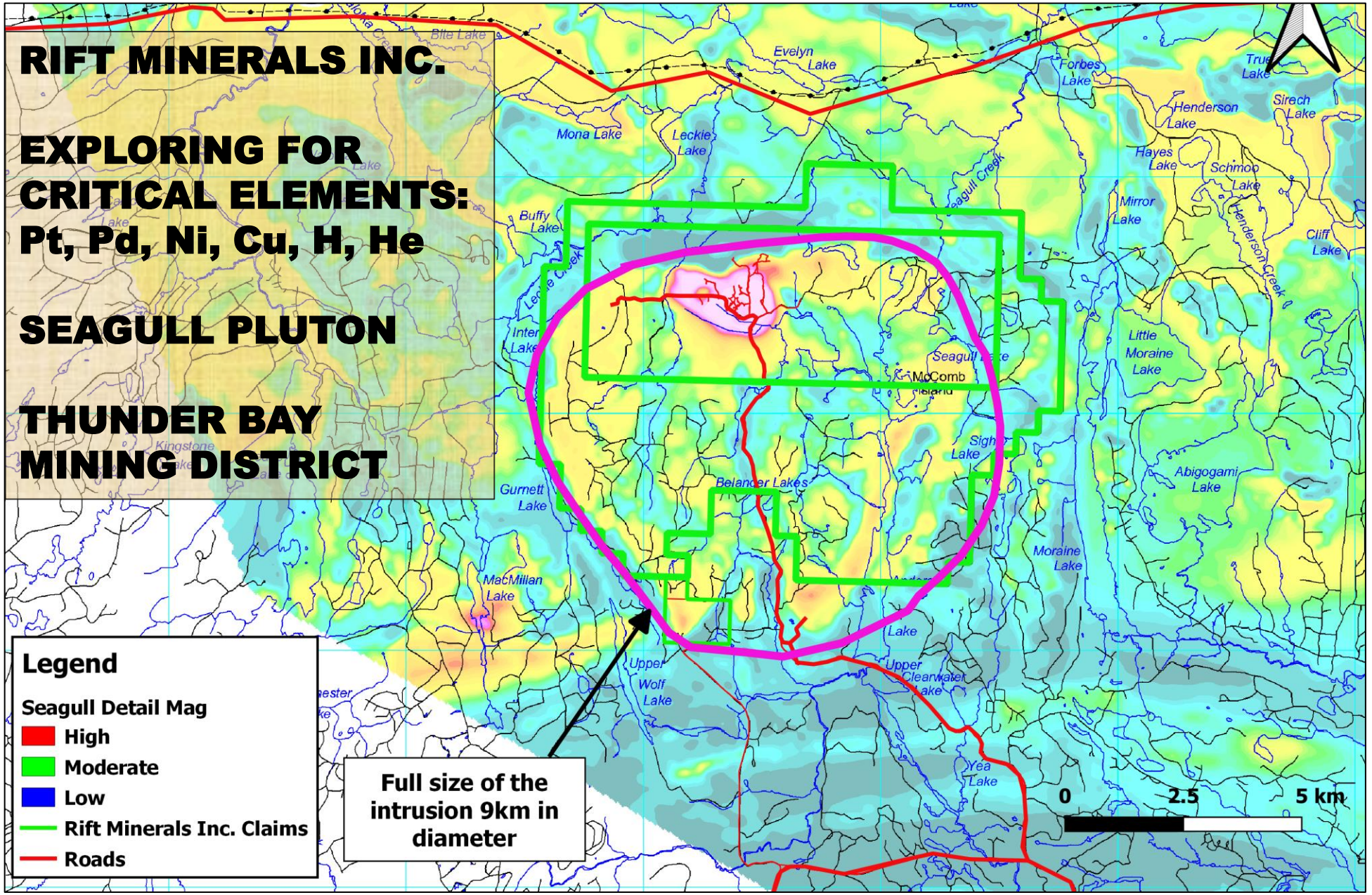
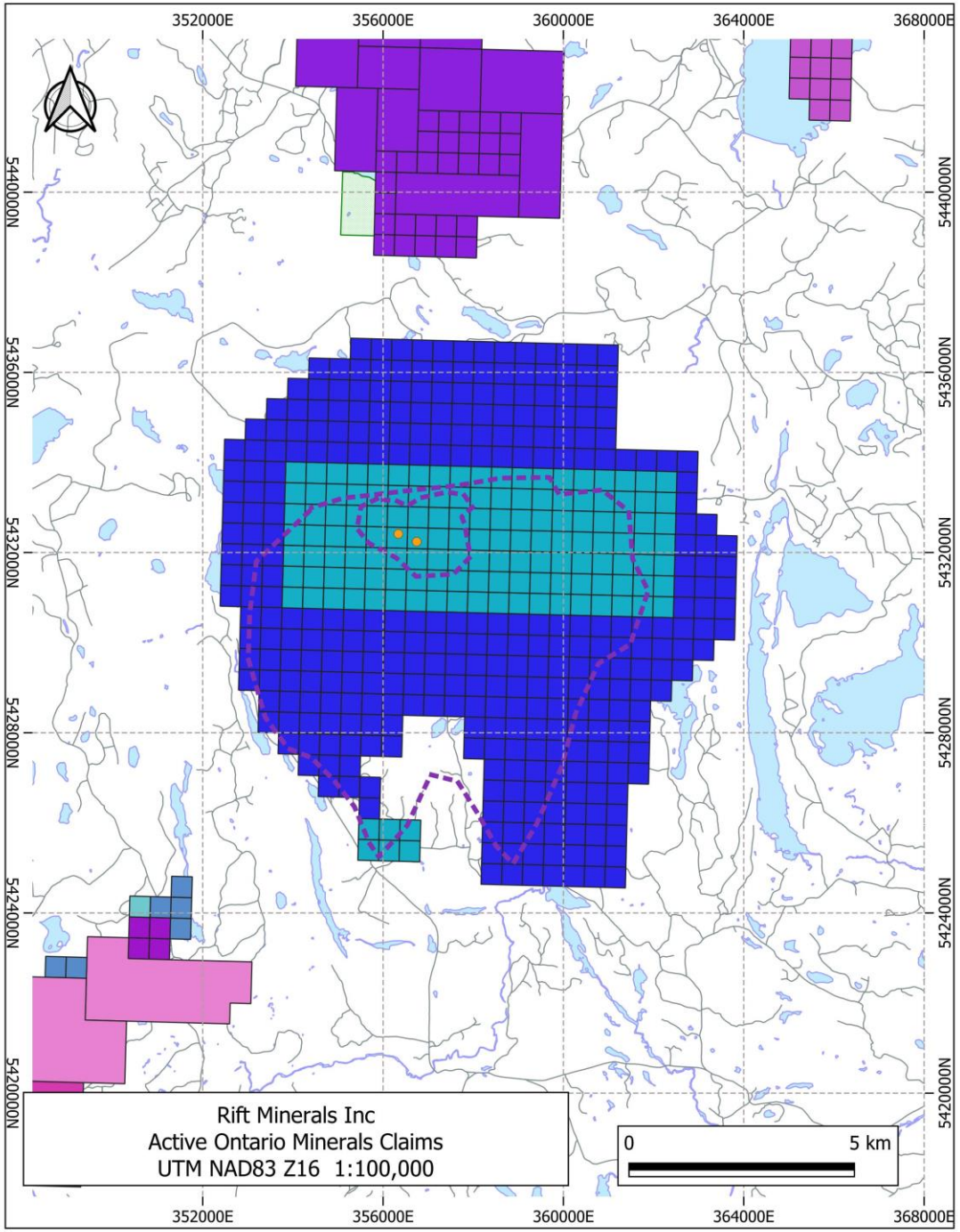
THE RIFT MINERALS INC. STORY UNFOLDS 80km NE OF THUNDER BAY, ONTARIO




RIFT MINERALS INC.
EXPLORING FOR CRITICAL ELEMENTS: Pt, Pd, Ni, Cu, H, He
SEAGULL PLUTON
THUNDER BAY MINING DISTRICT
Legend
Seagull Detail Mag
High
Moderate
Low
Rift Minerals Inc. Claims
Roads
Full size of the intrusion 9km in diameter
0
2.5
5 km
Evelyn Lake
Mona Lake
Leckie Lake
Buffy Lake
Seagull Creek
Forbes Lake
Henderson Lake
Hayes Lake
Schmon Lake
Mirror Lake
Henderson Creek
Cliff Lake
Sirech Lake
Little Moraine Lake
McComb
Sigh Lake
Abigogami Lake
Belanger Lakes
Gurnett Lake
MacMillan Lake
Moraine Lake
Upper Wolf Lake
Upper Clearwater Lake
Yea Lake

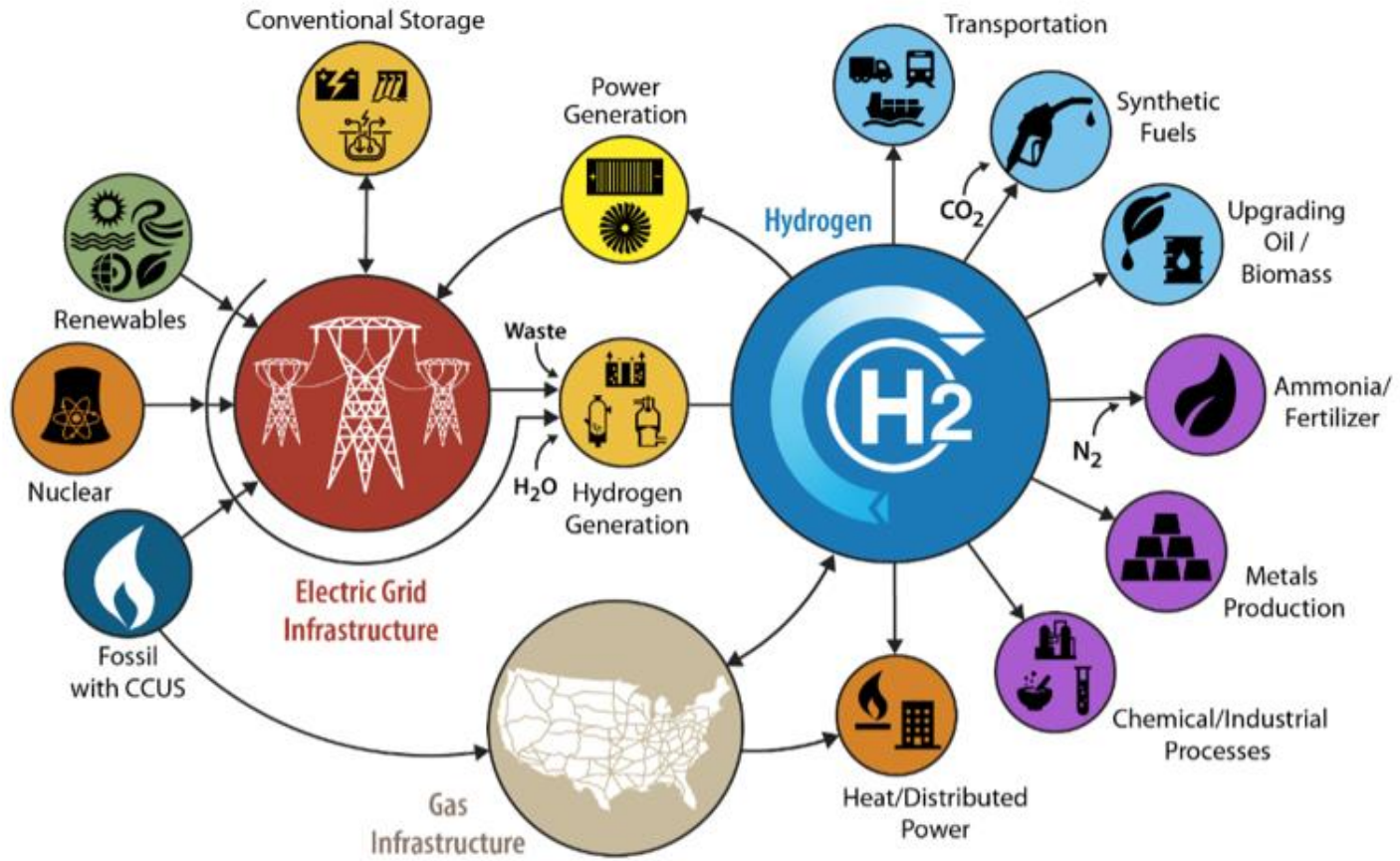


Ontario Mineral Claims

- Active mineral claims around the Seagull Intrusion

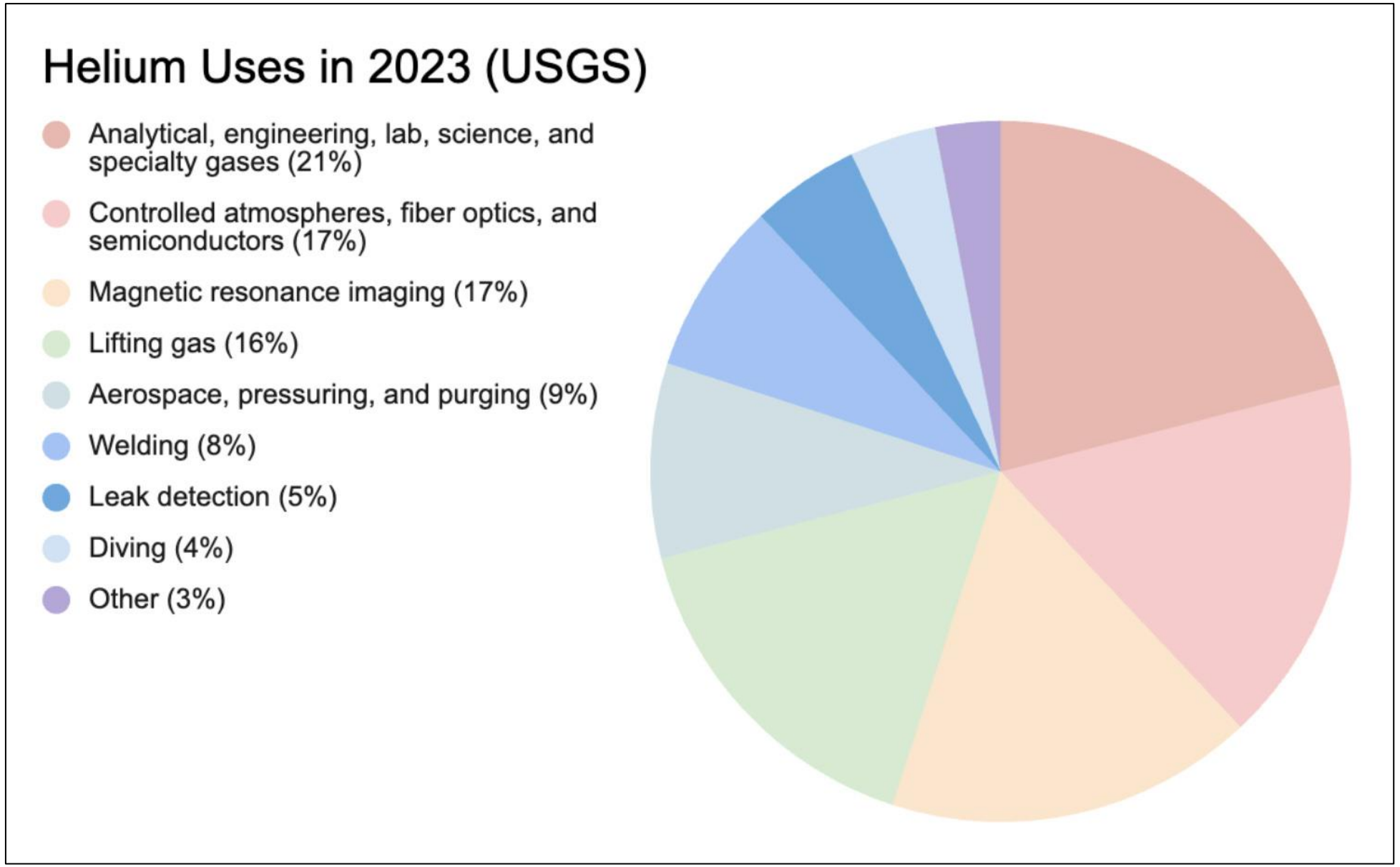
“Blue” Hydrogen – Cracked from methane (CH4)
“Green” Hydrogen – by Electrolysis of water – Zero Emissions
“Golden” Hydrogen – Naturally Occurring – Zero Emissions

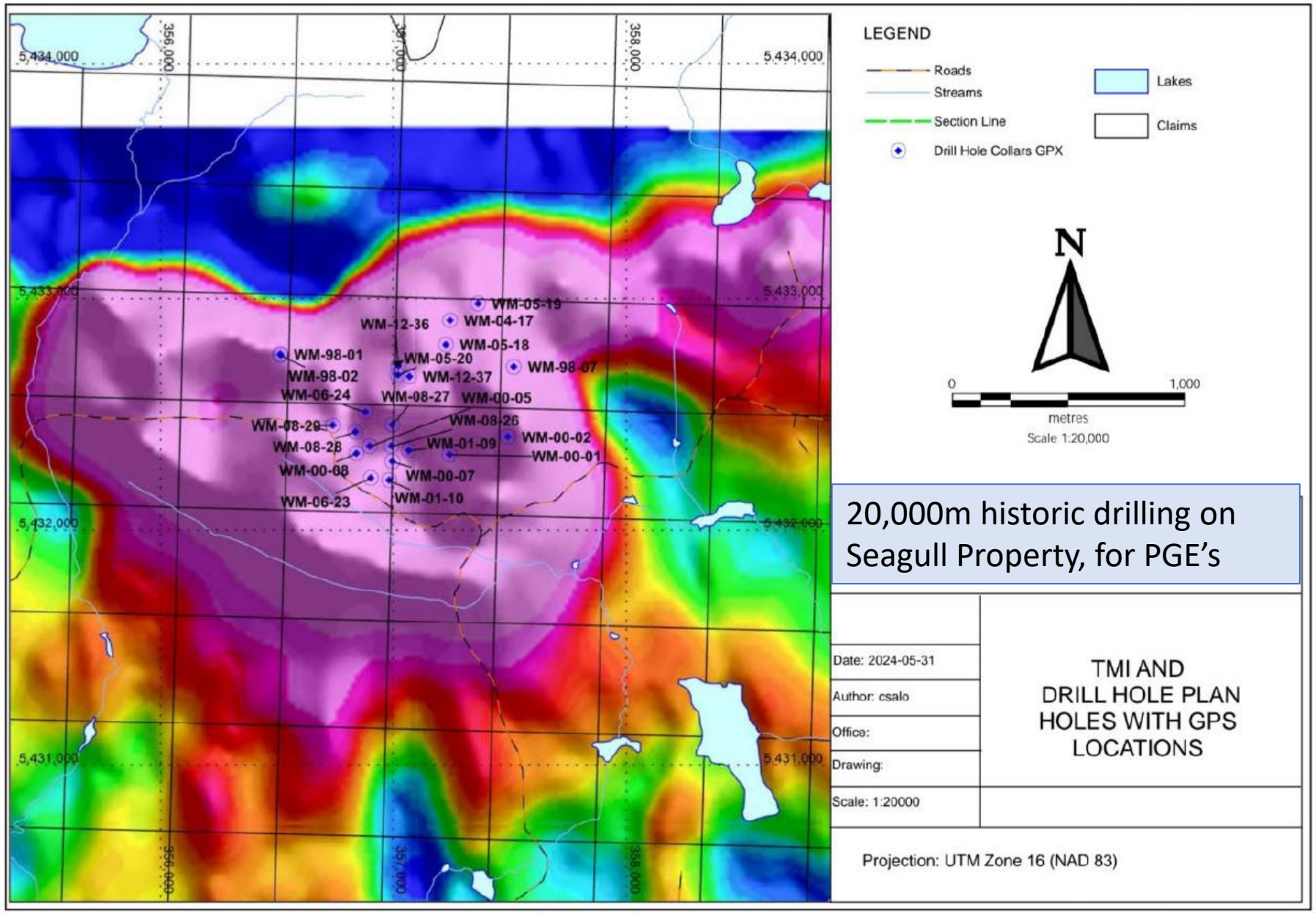
Conceptual H2@scale (hydrogen at scale) energy system



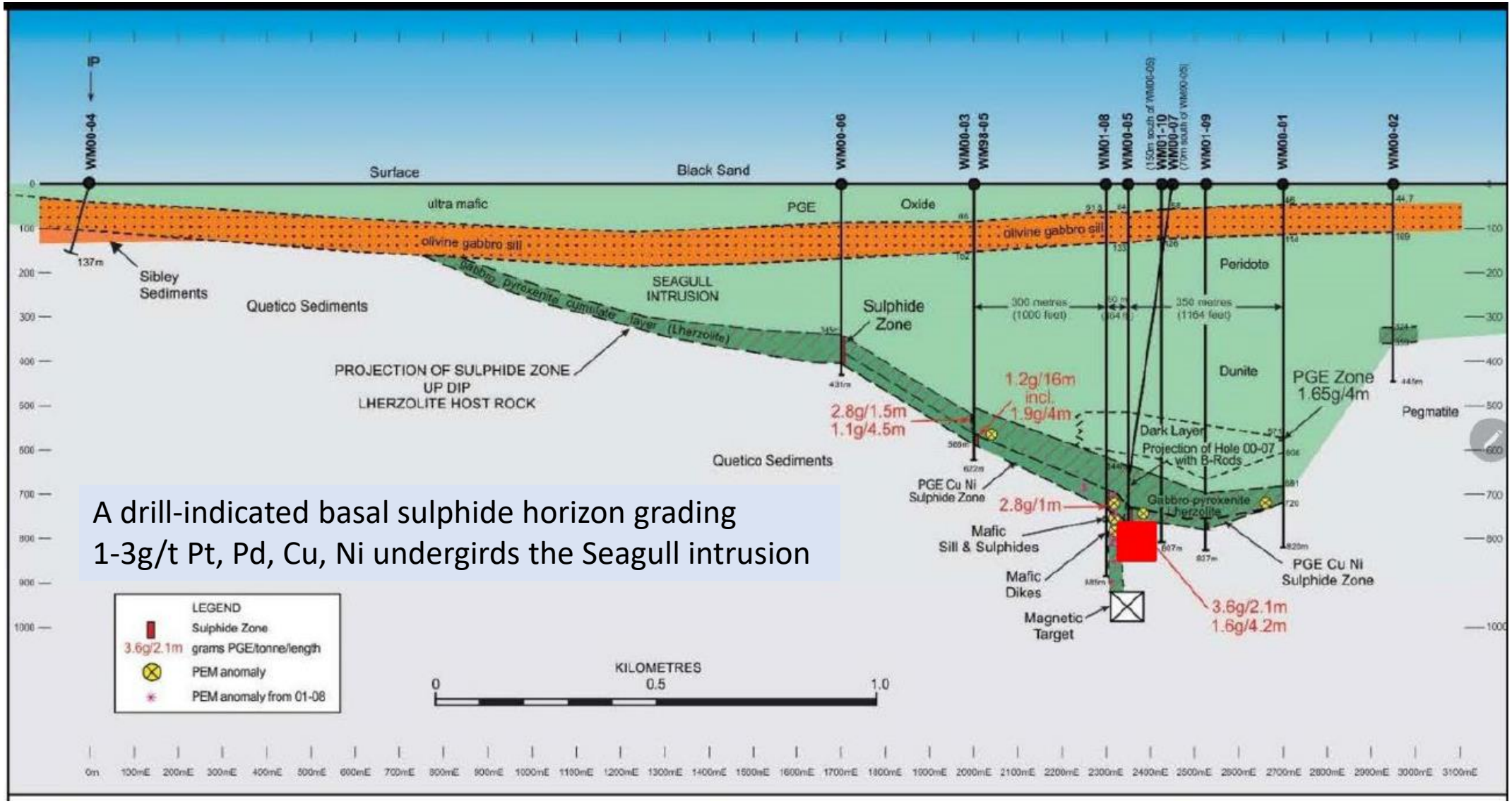
Source: U.S. Department of Energy, *Hydrogen Program Plan*, Figure 3, November 2020
Note: CCUS is carbon capture, utilization, and storage.

Helium cannot be synthesized – Naturally occurring only




LEGEND
Roads
Streams
Section Line
Drill Hole Collars GPX
Lakes
Claims
N
0
1,000
metres
Scale 1:20,000
WM-05-19
WM-12-36
WM-04-17
WM-05-18
WM-98-01
WM-05-20
WM-98-07
WM-98-02
WM-12-37
WM-06-24
WM-08-27
WM-00-05
WM-08-26
WM-08-29
WM-00-02
WM-08-28
WM-01-09
WM-00-01
WM-00-08
WM-00-07
WM-06-23
WM-01-10
5,434,000
5,433,000
5,432,000
5,431,000
356,000
357,000
358,000
20,000m historic drilling on Seagull Property, for PGE's
Date: 2024-05-31
Author: csalo
Office:
Drawing:
Scale: 1:20000
TMI AND DRILL HOLE PLAN HOLES WITH GPS LOCATIONS
Projection: UTM Zone 16 (NAD 83)

Historic Section – Seagull Pluton - 2009



A drill-indicated basal sulphide horizon grading 1-3g/t Pt, Pd, Cu, Ni undergirds the Seagull intrusion

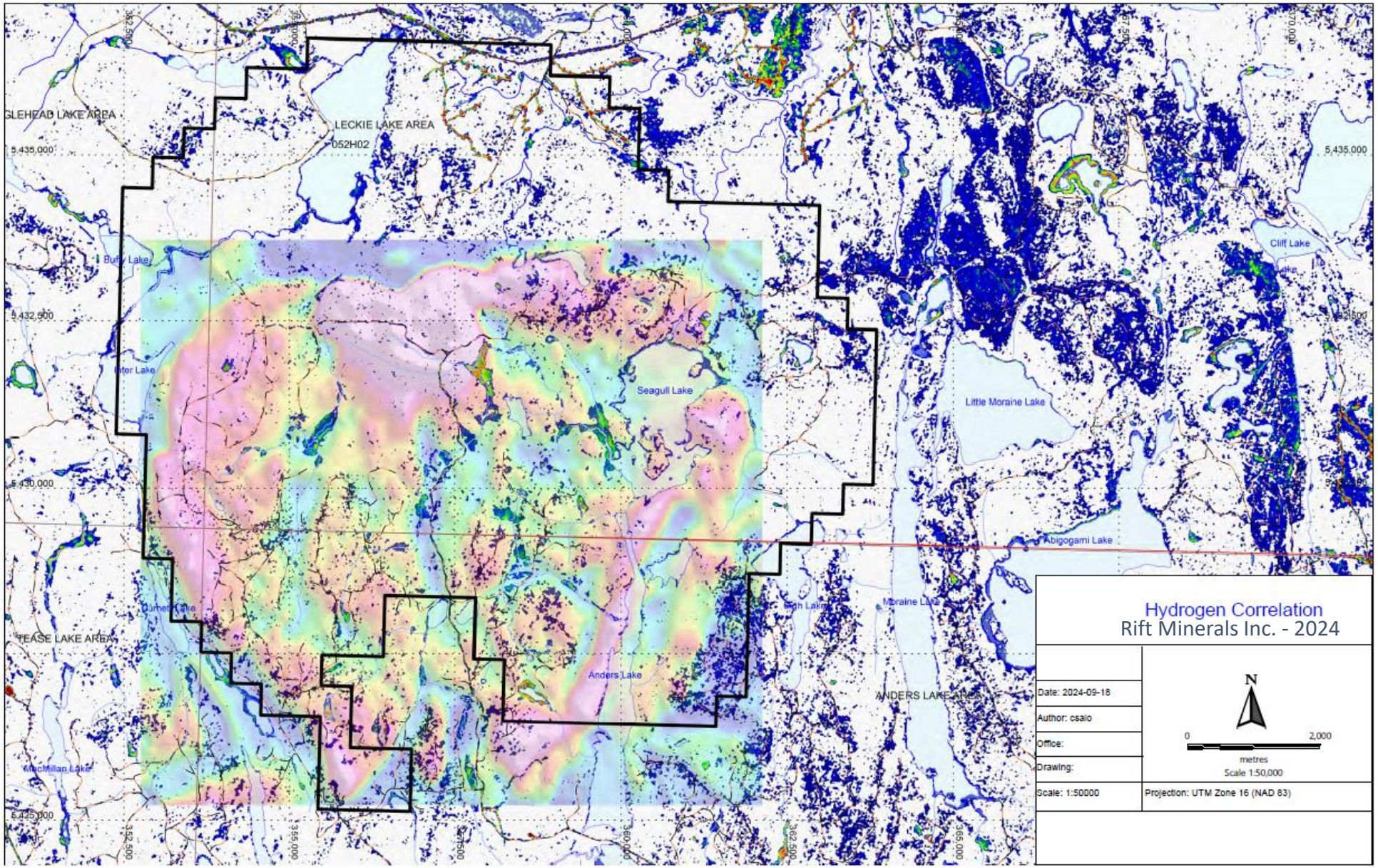
Satellite Spectral Imaging – Rift Minerals Inc. - 2024

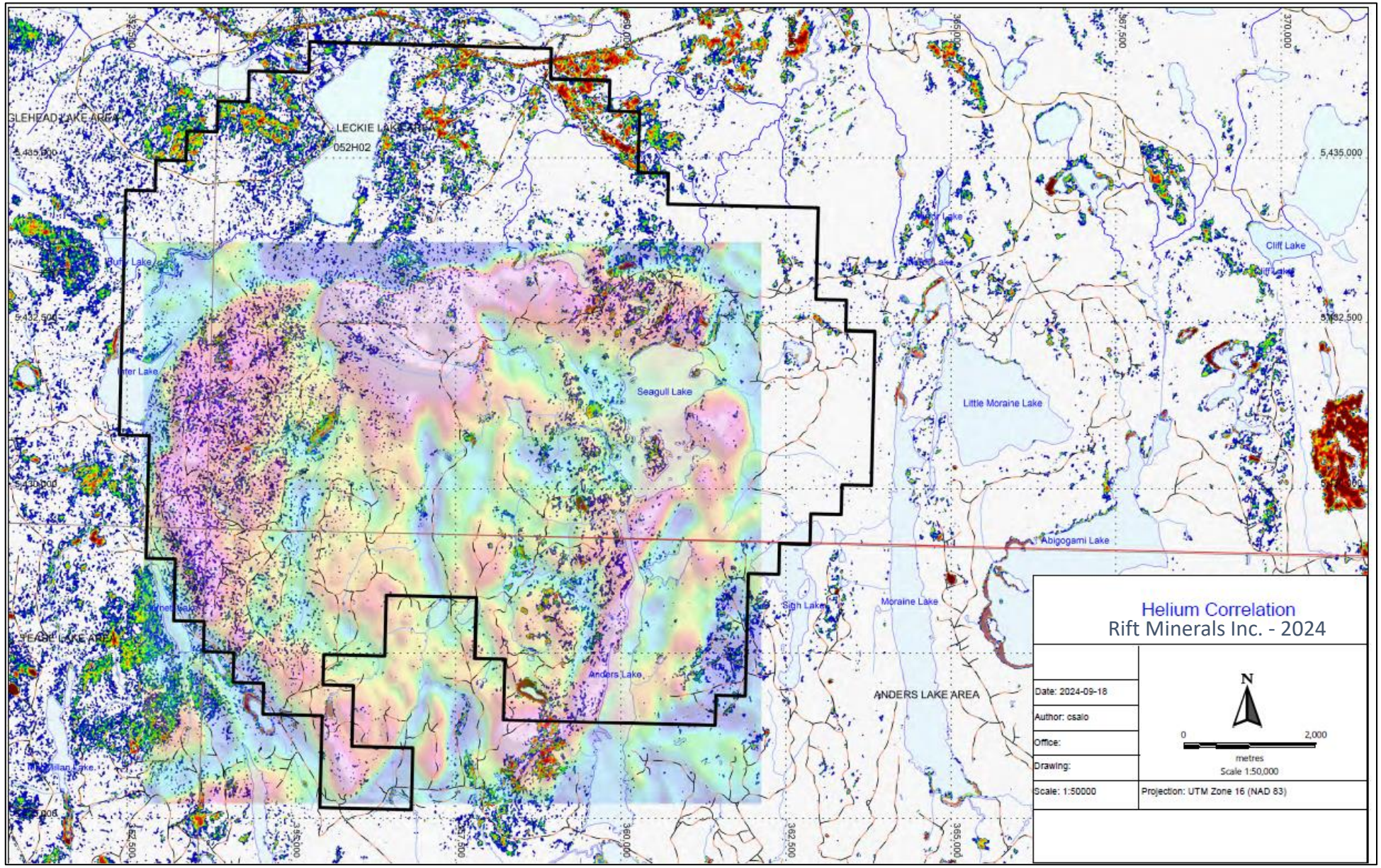
The Seagull Pluton and proximal geological environment was remotely surveyed In October, 2024 by satellite spectral imagery. Slide 9,10 images that follow show the spectral signatures for Hydrogen and Helium on a total field magnetic map, which outlines the Seagull intrusion.

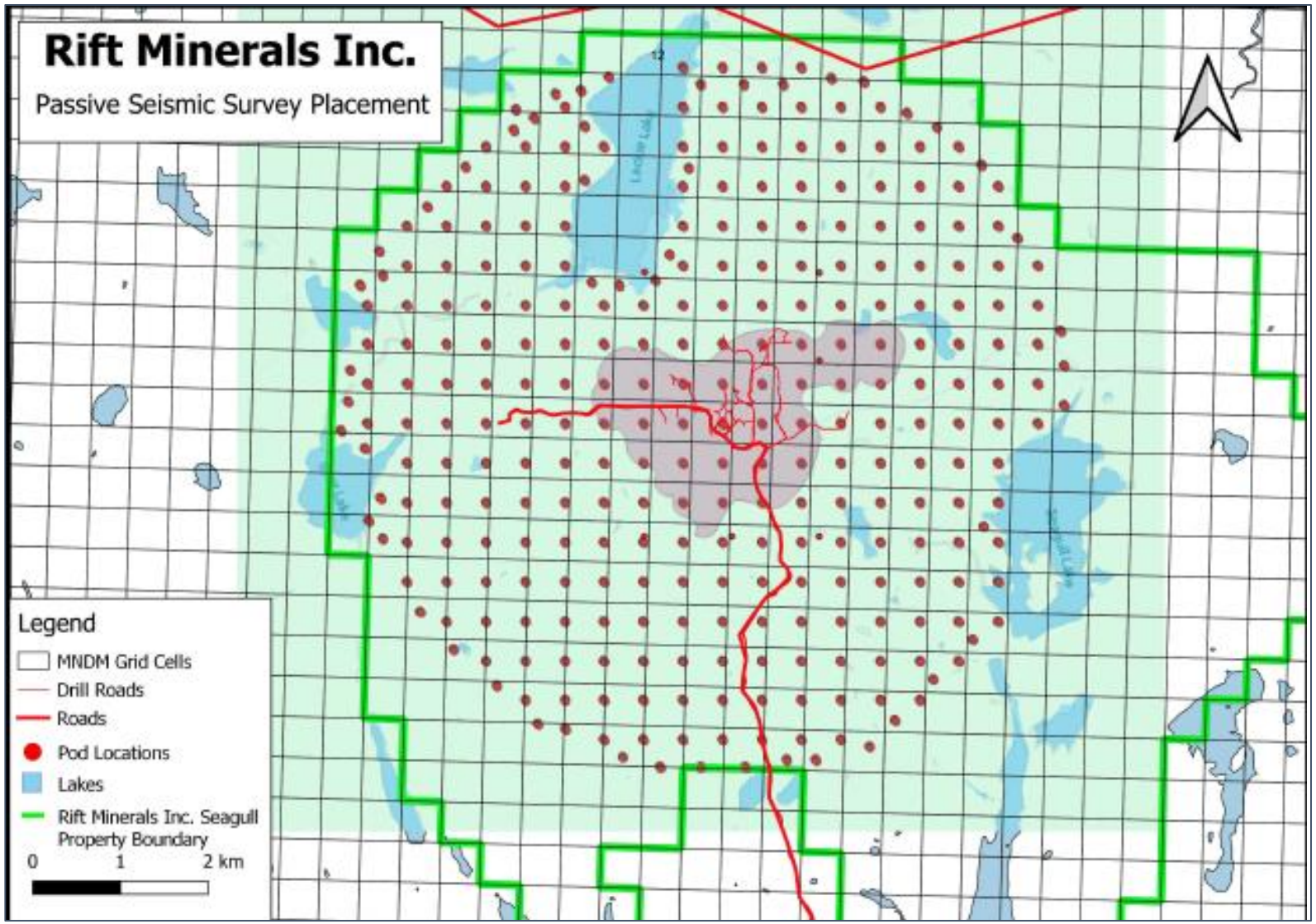
The host environment features the Proterozoic Mafic/Ultramafic Seagull Pluton intruded into Archean Quetico metasediments. Uranium pegmatites are ubiquitous in the Quetico sediments, within the Nipigon Rift Structure, part of the Mid-Continent Rift.

Hydrogen is a naturally occurring byproduct of the serpentinization (alteration) of ultramafic rocks. Hydrogen can be synthesized, most commonly by electrolysis of water. Helium is a natural, inert, lighter than air, daughter product of U235 decomposition. It cannot be synthesized.

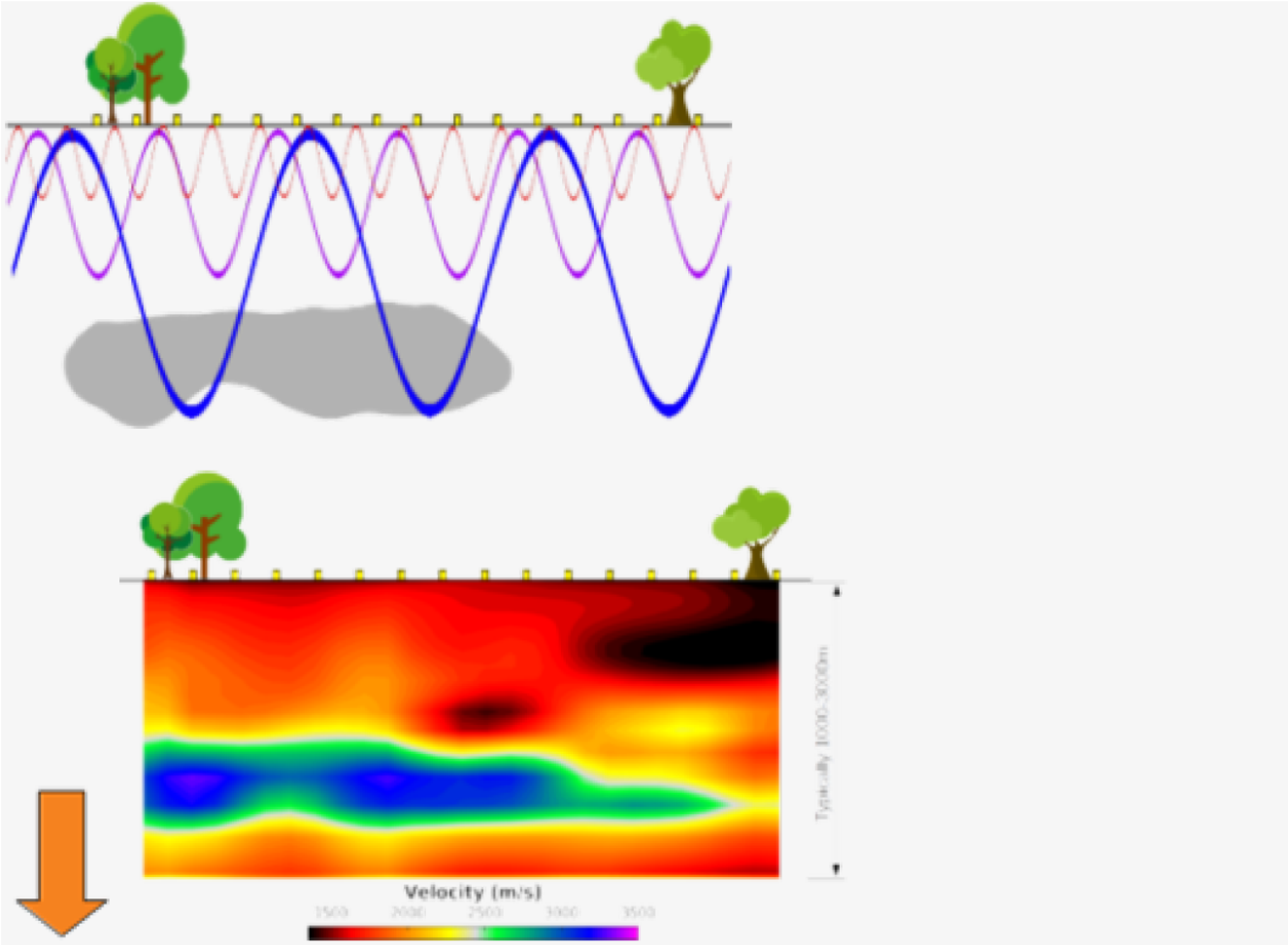
Notably, the geological environment is spontaneously producing both gases as shown in the following image Slides 9,10. The 64 sq km area of the Seagull Pluton may act as a stratigraphic trap, with evident seepage of both Hydrogen and helium locally within and around the Seagull Pluton, likely through fractures or faults. The AMT Block Model image in Slide 13 shows a prominent low velocity anomaly feature topping out at ~1km depth. This is consistent with high-pressure gas in a fracture gas zone and also, possible platinum-palladium rich massive sulphides in an intrusive Feeder Zone.


LECKIE LAKE AREA
052H02
GLEHEAD LAKE AREA
TEASE LAKE AREA
ANDERS LAKE AREA
Seagull Lake
Little Moraine Lake
Cliff Lake
Abigogami Lake
Anders Lake
MacMillan Lake
5,435,000
5,432,500
5,430,000
5,425,000
352,500
355,000
357,500
360,000
362,500
365,000
367,500
370,000
Hydrogen Correlation
Rift Minerals Inc. - 2024
Date: 2024-09-18
Author: csalo
Office:
Drawing:
Scale: 1:50000
Projection: UTM Zone 16 (NAD 83)
N
0
2,000
metres
Scale 1:50,000


LECKIE LAKE AREA
052H02
GLEHEAD LAKE AREA
YEADE LAKE AREA
ANDERS LAKE AREA
Seagull Lake
Little Moraine Lake
Cliff Lake
Abigogami Lake
Moraine Lake
Anders Lake
Helium Correlation
Rift Minerals Inc. - 2024
Date: 2024-09-18
Author: csalo
Office:
Drawing:
Scale: 1:50000
Projection: UTM Zone 16 (NAD 83)
N
0
2,000
metres
Scale 1:50,000


Rift Minerals Inc.
Passive Seismic Survey Placement
Legend
MNDM Grid Cells
Drill Roads
Roads
Pod Locations
Lakes
Rift Minerals Inc. Seagull Property Boundary
0
1
2 km

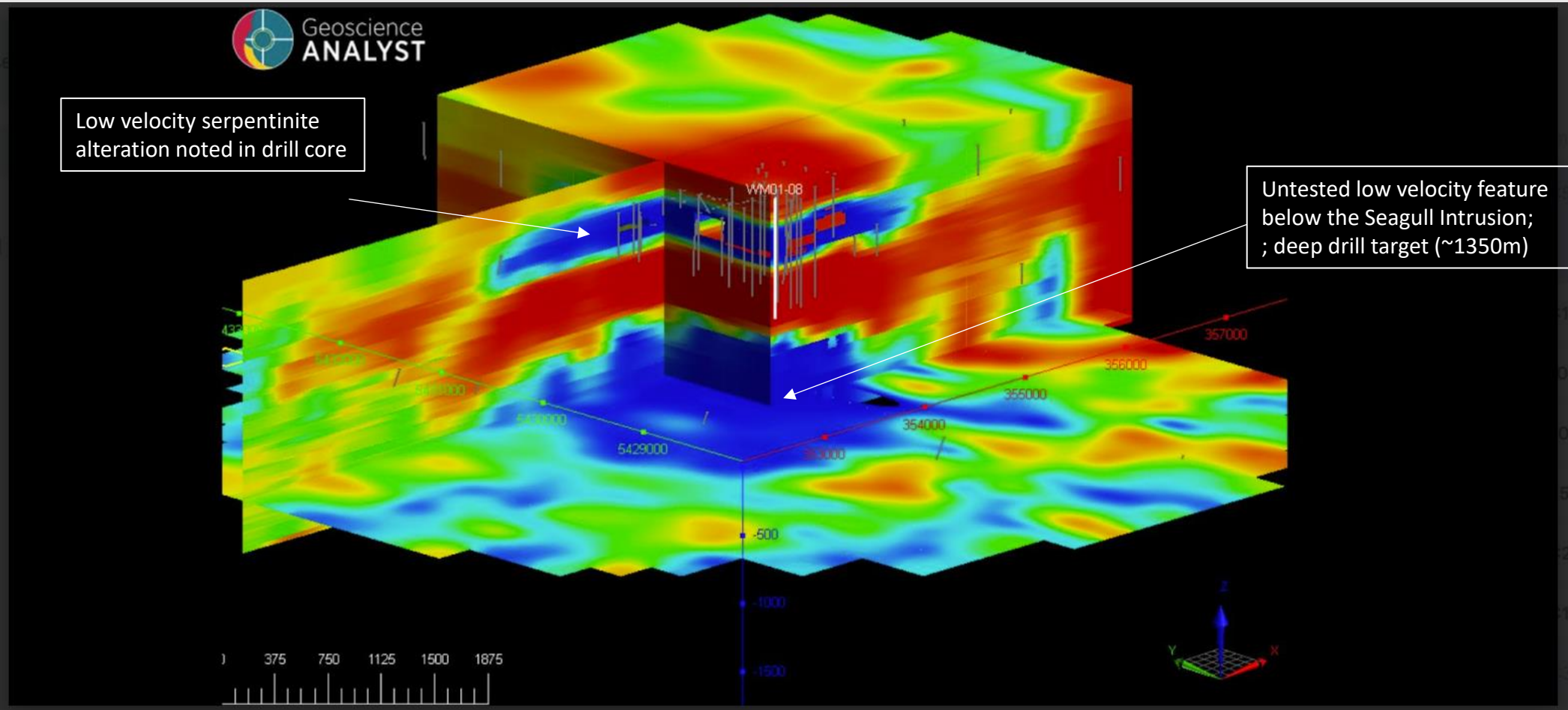
APPENDIX 2 – Conceptual Passive Seismic Survey Array Layout



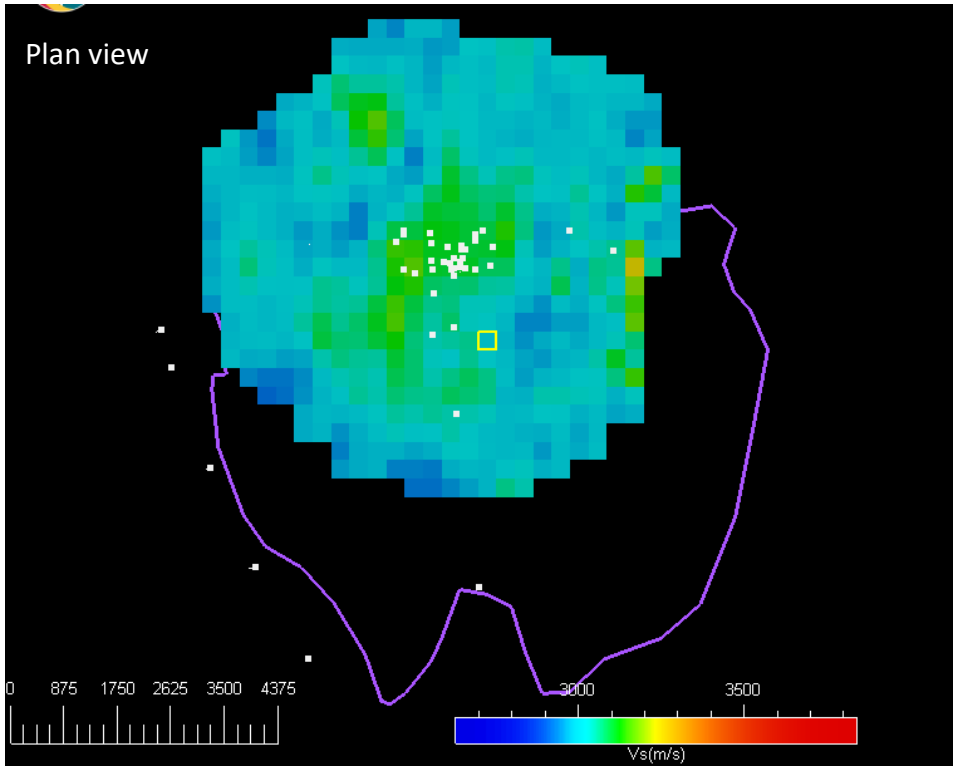
The basic principles of surface wave dispersion have been known for decades.

***Tomography**. Sisprobe has developed techniques, and workflows to treat massive amounts of data recorded in month-long surveys by large surface arrays (100 to >2000 sensors). This produces 3D tomographic images of the subsurface.*

SEAGULL PLUTON - AMBIENT NOISE TOMOGRAPHY (PASSIVE SEISMIC) BLOCK MODEL
RIFT MINERALS INC. - 2024

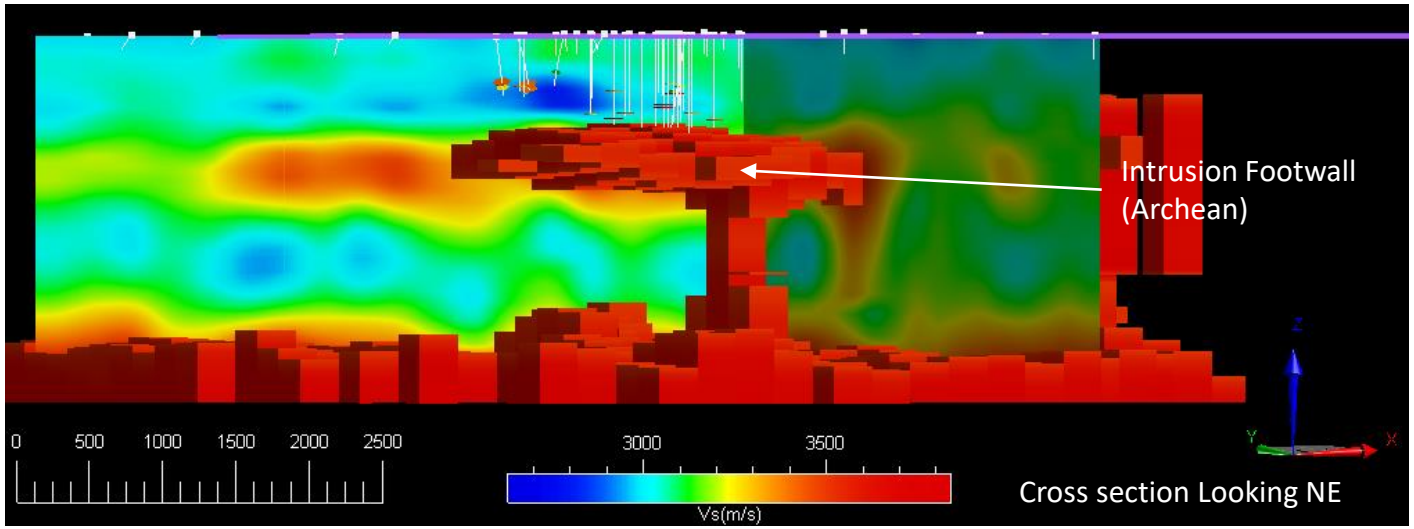


2024 Passive Seismic Survey

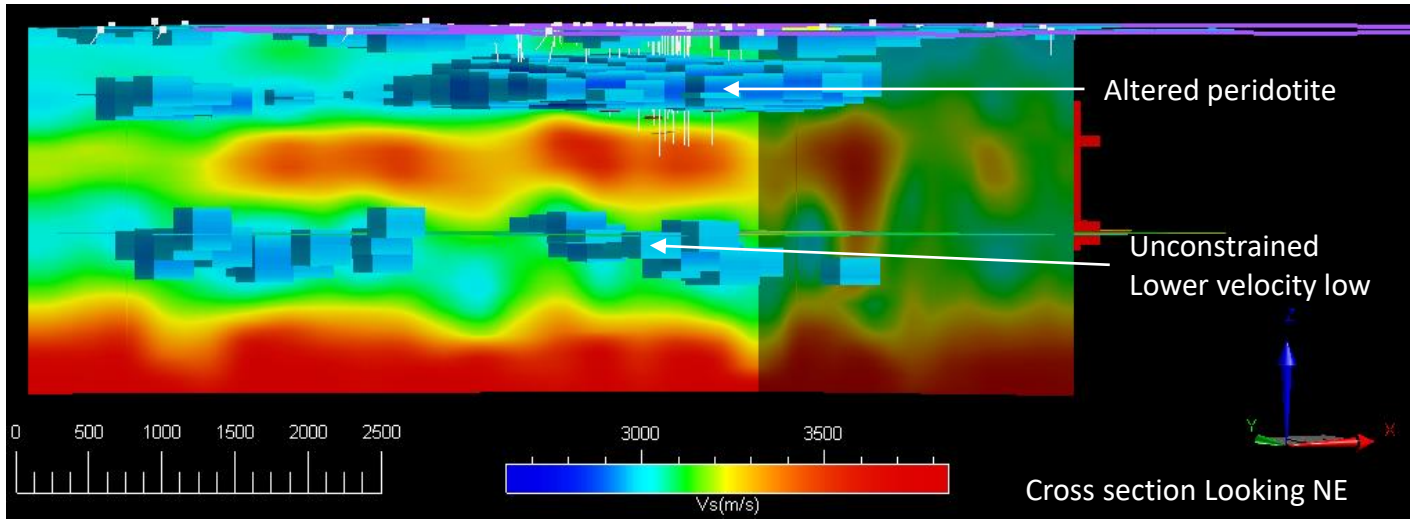


Inversion block model:

High velocity >3500m/s

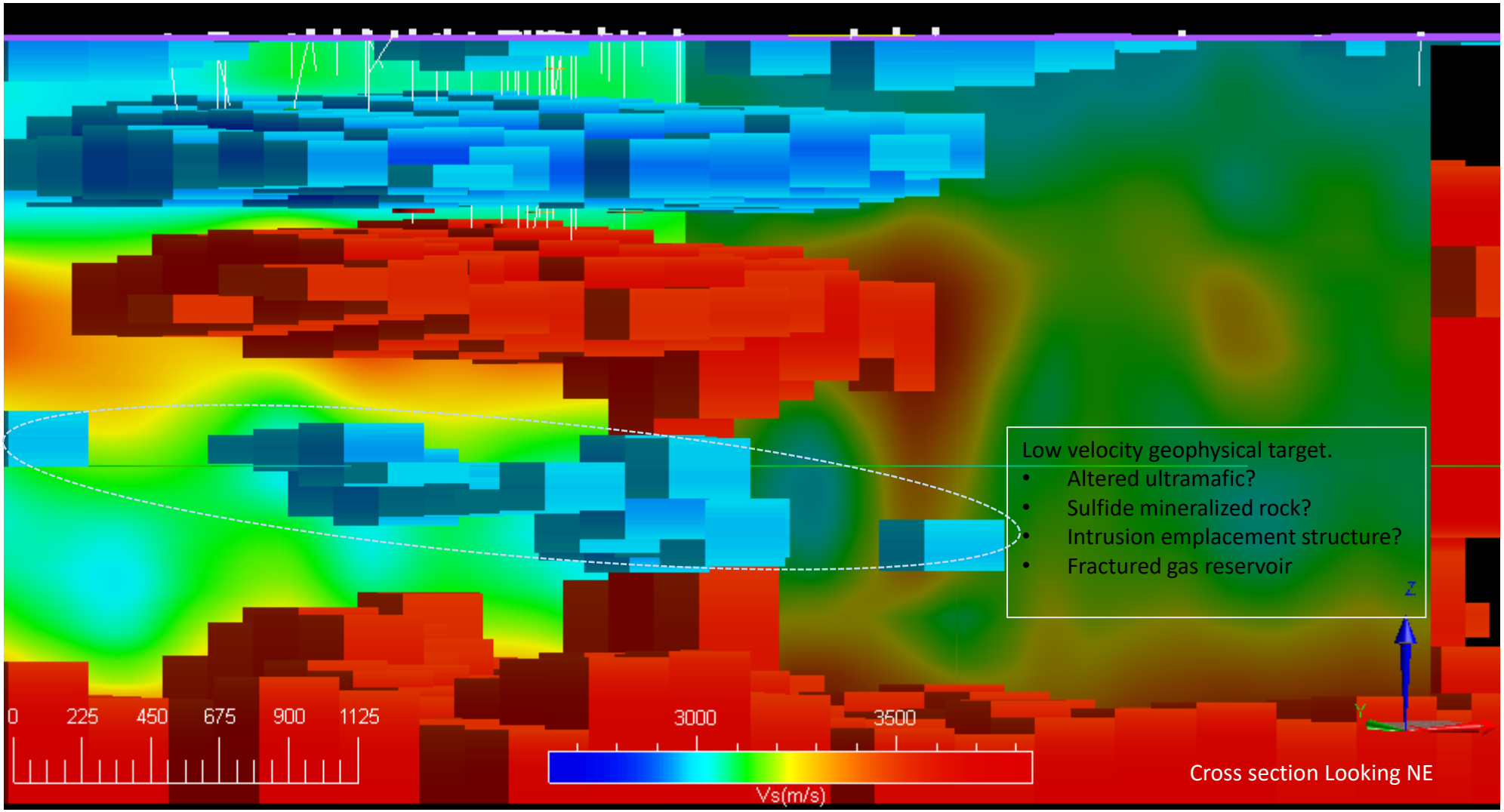


Low velocity <2980m/s

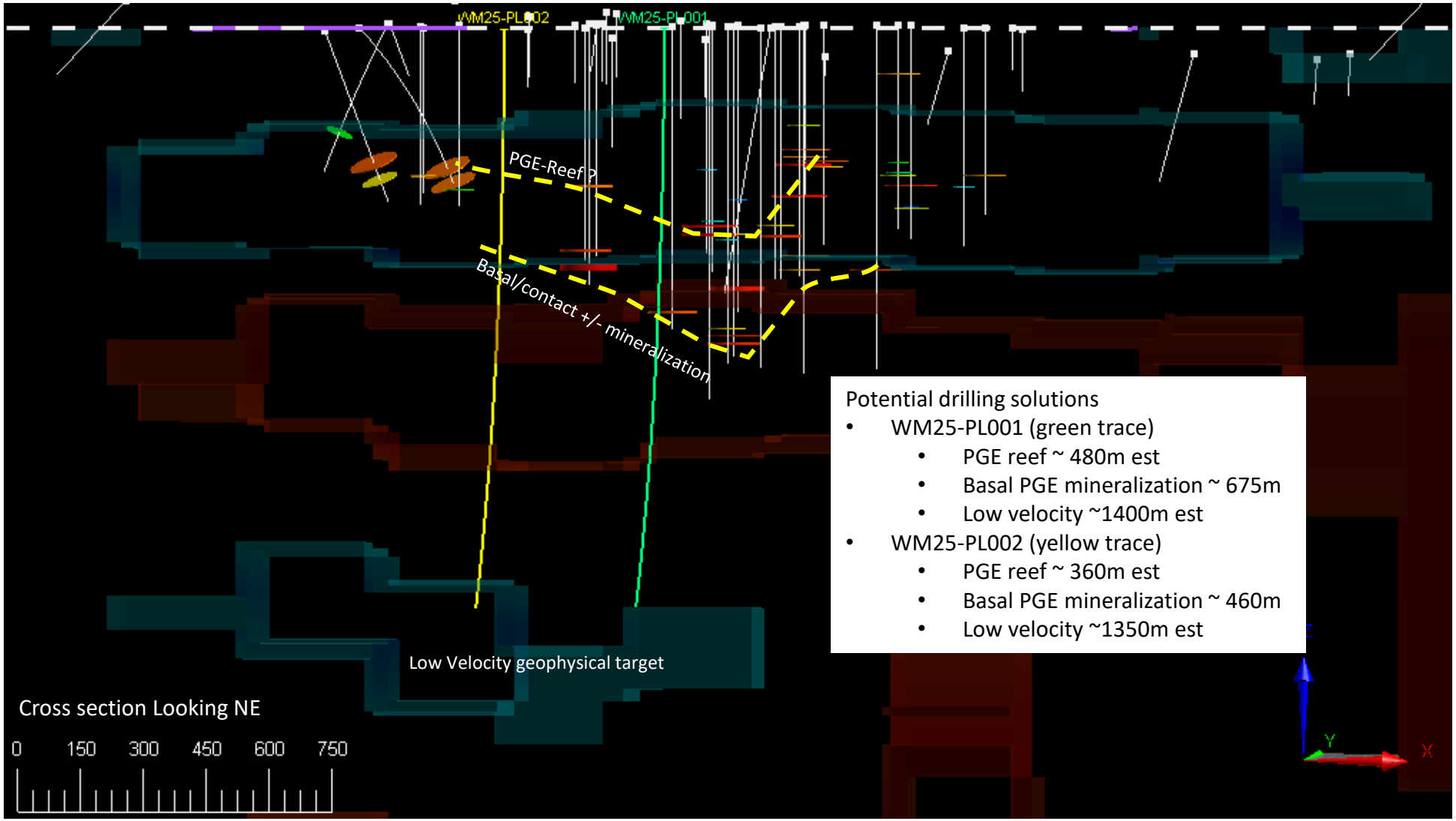


2024 Passive Seismic Survey

Inversion block model: High velocity >3500m/s (red) & Low velocity <2980m/s (blue)



Inversion block model: High velocity >3500m/s (red) & Low velocity <2980m/s (blue)



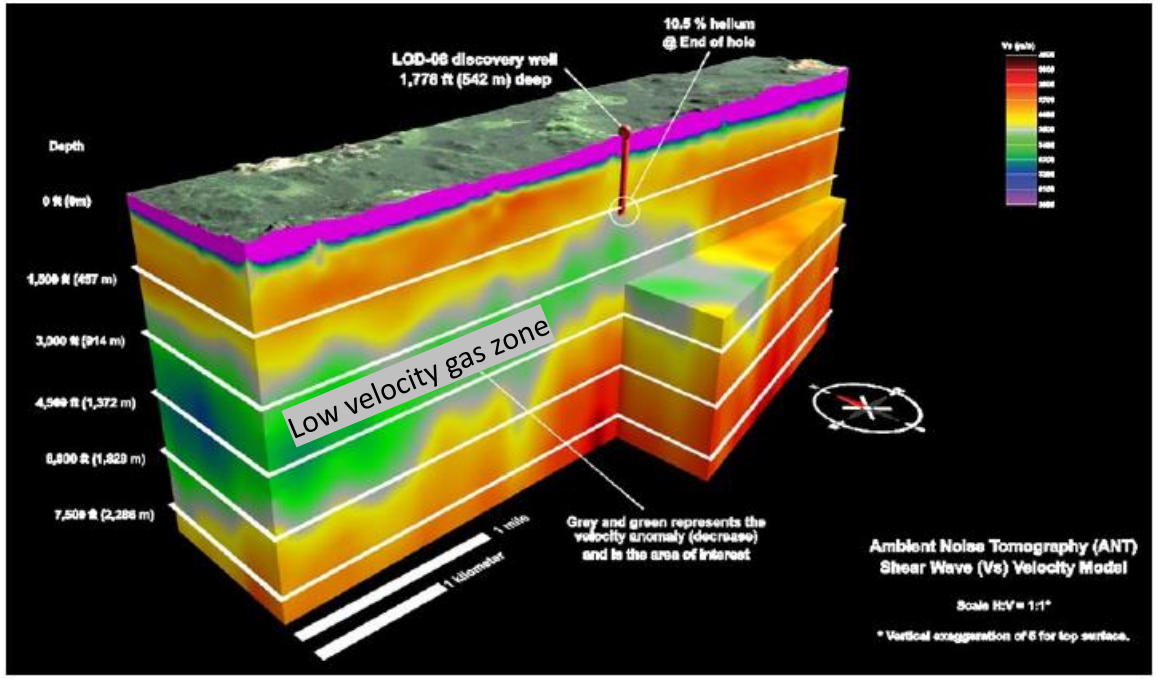
Potential drilling solutions

- WM25-PL001 (green trace)
  - PGE reef ~ 480m est
  - Basal PGE mineralization ~ 675m
  - Low velocity ~1400m est
- WM25-PL002 (yellow trace)
  - PGE reef ~ 360m est
  - Basal PGE mineralization ~ 460m
  - Low velocity ~1350m est

CORPORATE COMPARABLE – PULSAR HELIUM (PLSR: TSXV)

2024 work program

The Jetstream #1 appraisal well produced highly positive results from wireline logging, flow and pressure testing. As a result, Pulsar is now planning to deepen Jetstream by an additional 700m, as well as drill two step out wells within a 5km radius to substantiate liquid helium production. In addition, further seismic surveys will be conducted to add to the interpretation from a high-resolution airborne gravity survey.



Link to Pulsar Helium Inc. Topaz Project

https://pulsarhelium.com/projects/topaz/default.aspx