



# COMMANDER RESOURCES LTD

**fjordland**  
EXPLORATION INC.

## **SOUTH VOISEY'S BAY NI-CU-CO PROJECT LABRADOR**

May 2017

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*The information contained herein, while obtained from sources which we believe are reliable, is not guaranteed as to its accuracy or completeness. The company is an exploration stage mineral resource exploration company and none of its mineral projects have yet to be proven to be economic. The contents of this presentation is for information purposes only and does not constitute an offer to sell or a solicitation to purchase any securities referred to herein.*

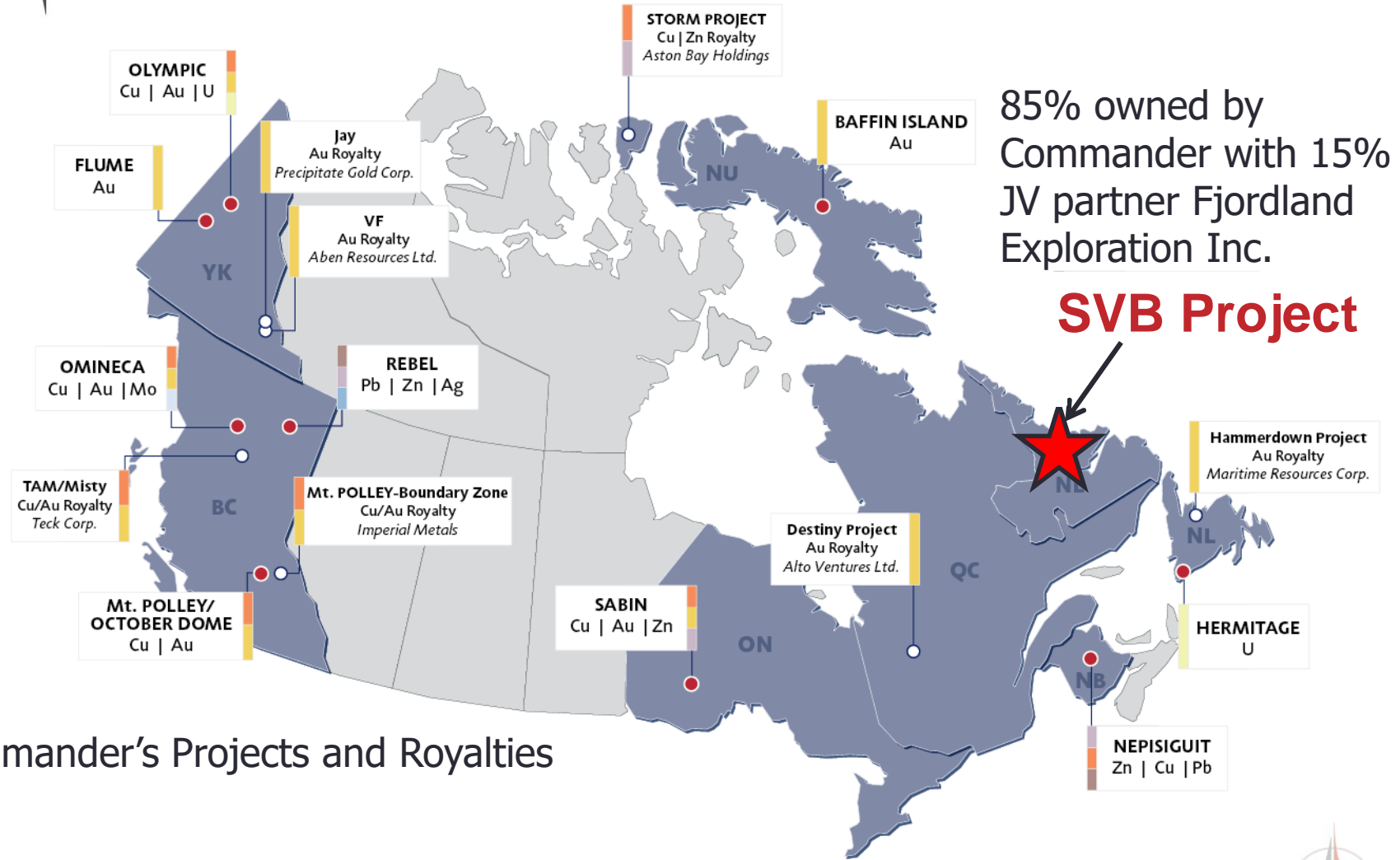
## *Forward-looking Statements*

*This presentation includes certain forward-looking statements about future events and/or financial results which are forward-looking in nature and subject to risks and uncertainties. Forward-looking statements include without limitation, statements regarding the company's plans, goals or objectives and future exploration, development, potential mineralization, exploration results and future plans and objectives of Commander. Forward-looking statements can generally be identified by the use of forward-looking terminology such as "may", "will", "expect", "intend", "estimate", "anticipate", "believe", or "continue" or the negative thereof or variations thereon or similar terminology. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from expectations include risks associated with mining generally and exploration stage projects in particular. Potential investors should conduct their own investigations as to the suitability of investing in securities of Commander.*

Bernard Kahlert, P.Eng , VP Corporate Development is the Qualified Person responsible for the technical content of this presentation.



# South Voisey's Bay (SVB) Location



Commander's Projects and Royalties



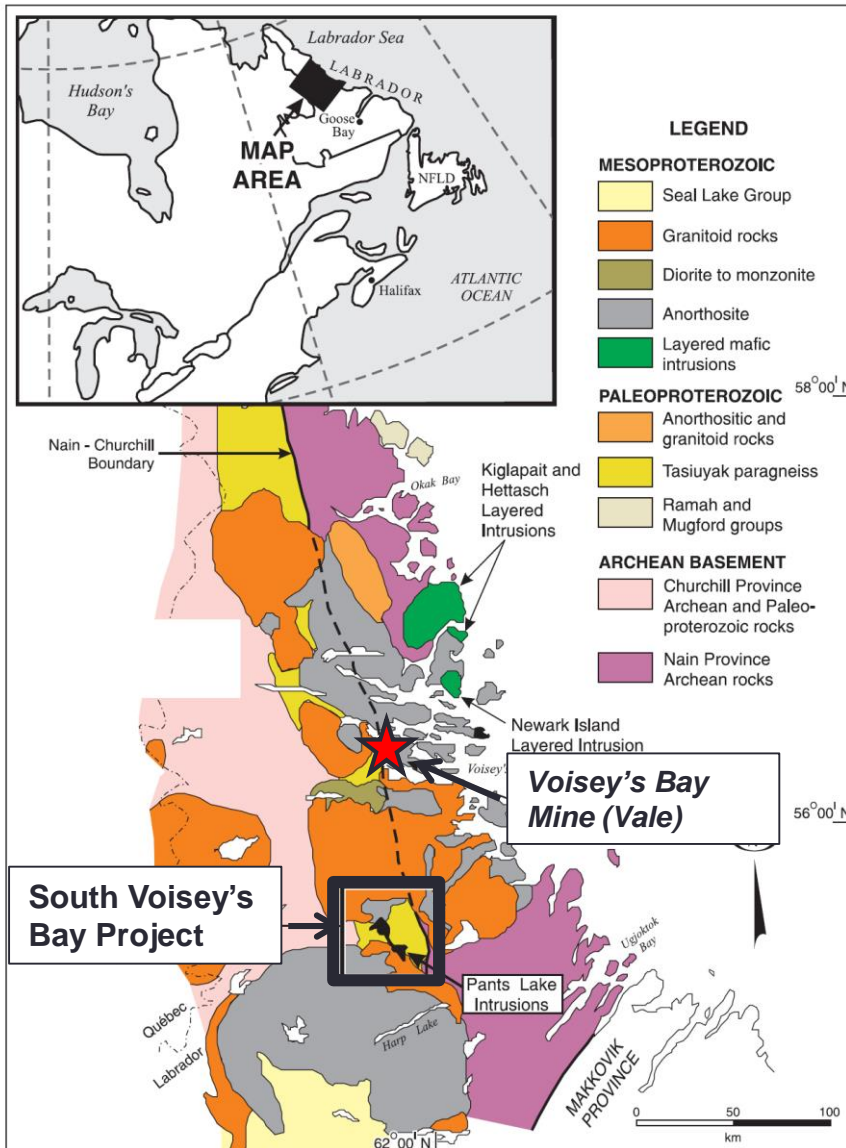
- 4248 Ha covering portions of the **Pants Lake Gabbro Complex**
- 85% owned by Commander with 15% JV partner Fjordland Exploration Inc.
- Located 85 km south of Vale's Voisey's Bay Mine
  - 2015 P+P Reserves: 36.1 MT @ 2.24% Ni, 1.05% Cu, 0.13% Co
    - (2015 SEC Form 20F Disclosure)
- Extensive exploration database reflecting in excess of \$20 million in work including drilling, geophysics and geochemistry
- No integrated compilation or modelling of geophysics has ever been done
- 2014 UTEM3 survey outlines large horizontal conductor plus 4 strong vertical conductors

## Drill Ready

## PRIORITY TARGETS

- **Sandy:** 5 near surface UTEM conductors defined adjacent to and at base of Worm Gabbro.
- **Sarah:** deep target at thickest portion of intrusion- untested off-hole Pulse EM anomaly.
- **Additional targets indicated from geophysical modelling**





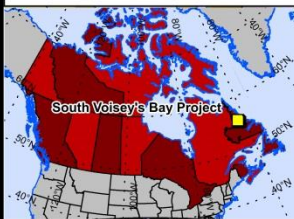
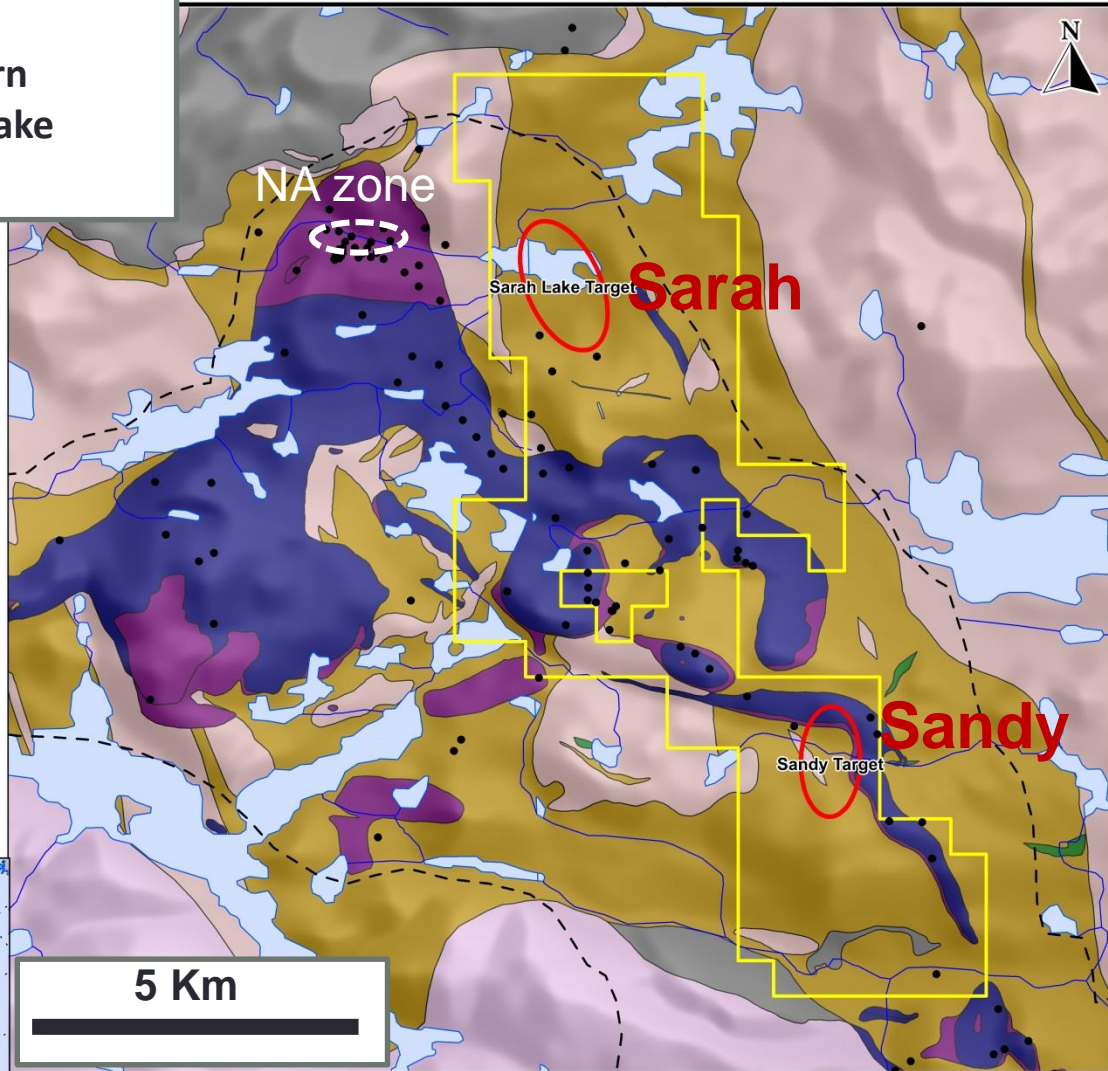
- The Voisey's Bay and Pants Lake intrusions are the oldest mafic suites in the Nain Plutonic Suite (1338 to 1322 Ma).
- only mafic suites that intrude the Tasiuyak Gneiss, a metasedimentary unit.
- the most primitive isotopically.

# SVB Property Geology and Tenure

**4,248 Ha covering  
prospective eastern  
portion of Pants Lake  
Gabbro Complex**

- Legend**
-  South Voiseys Bay Property
  -  Target Areas
  -  Watercourses
  -  Waterbodies
  -  Gabbro extents
  -  DDH

- Rock Types**
-  Mafic dyke
  -  Anorthosite
  -  Gabbro
  -  Olivine gabbro
  -  Pants Lake intrusive suite
  -  Granitoid
  -  Orthogneiss
  -  Paragneiss
  -  Amphibolite gneiss
  -  Mafic gneiss



# SVB Project Geologic Setting

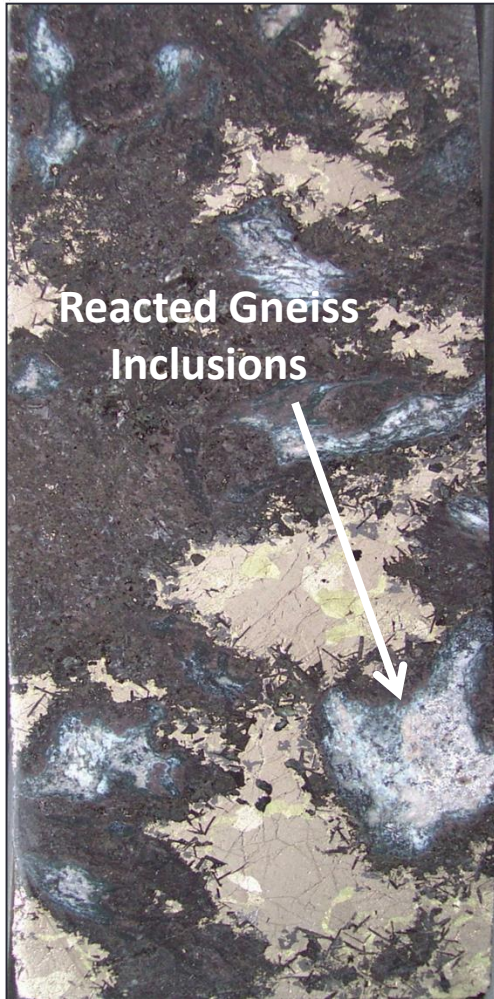
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- Hosted by the **Pants Lake Intrusions (PLI)** that are dominated by olivine gabbro, with troctolite, melagabbro, peridotite and leucogabbro. They form sheet-like bodies emplaced into metasedimentary rocks that contain sulphides. Disseminated sulphide mineralization is almost ubiquitous near the basal contacts of these intrusions.
- Mineral Chemistry: low Ni contents and low Cu/Zr ratios from un-mineralized mafic rocks imply previous extraction of metals by sulphide liquids. Olivine has anomalously low Ni contents for its moderate MgO contents. ***Indicative of Nickel segregation into sulphides***
- Key factors at Pants Lake include the presence of sulphide-bearing country rocks, and suitable parental magmas.
- Nickel prospectivity of the PLI confirmed by the discovery of the “Northern Abitibi” occurrence located 2.5 km west of the Sarah drill target
  - DDH 97-67: 0.6 m @1.93 % Ni, 1.07 % Cu, 0.26 % Co ( base of gabbro)
  - DDH 97-75: 1.1 m @11.75 % Ni, 9.70 % Cu, 0.43 % Co ( feeder vein in footwall paragneiss)





# SVB Pants Lake vs Voisey's Bay Intrusives



- Pants Lake Intrusives (PLI) Petrologically & geochemically closely related to Voisey's Bay Intrusions
- Intruded into sulphide & graphite bearing paragneisses (Tasiuyak equivalent) providing sulphide contamination to intrusions
- Intrusions dominated by olivine gabbro, then troctolite, then minor ultramafic cumulate rocks
- Pants Lake intrusion: 1322Ma ; Voisey's Bay intrusion: 1312Ma
- Large volumes of resorbed country rock xenoliths (contaminated gabbro)
- Basal hybrid breccia hosts nickel-copper mineralization

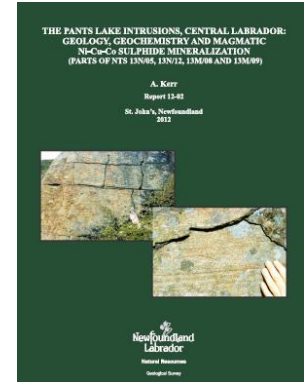
**Pants Lake Intrusives - the only significant intrusive complex other than Voisey's Bay.**



# SVB Nfld. Geological Survey Study

*Excerpts from: 2012 A. Kerr, Geological Survey, Newfoundland  
Labrador Natural Resources,*

**THE PANTS LAKE INTRUSIONS, CENTRAL LABRADOR:  
GEOLOGY, GEOCHEMISTRY AND MAGMATIC Ni-Cu-Co SULPHIDE  
MINERALIZATION  
(PARTS OF NTS 13N/05, 13N/12, 13M/08 AND 13M/09)**



**“... The North intrusion mineralized sequence includes rock types that are strikingly similar to those associated with economically important high-grade sulphide mineralization at Voisey’s Bay. ...”**

**Mass balance - “...These calculations imply that at least 15 million tonnes of Ni metal, and similar amounts of Cu metal, are missing. ...”**



# SVB: 1997 Northern Abitibi Discovery\*



**DDH 97-67: 0.6 m @ 1.93 % Ni, 1.07 % Cu, 0.26 % Co**

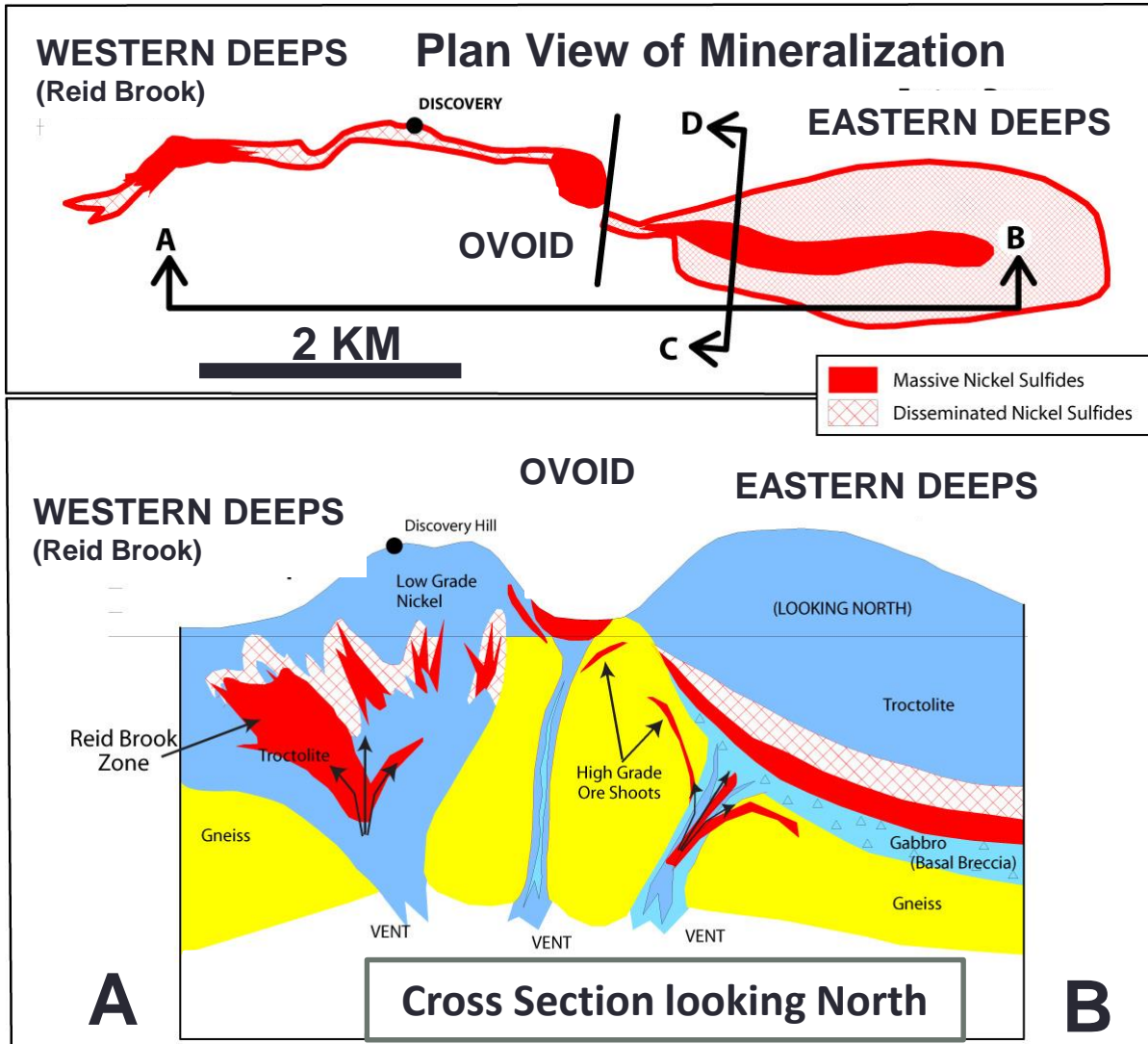


**DDH 97-75: 1.1 m @ 11.75 % Ni, 9.70 % Cu, 0.43 % Co**

\* Located on adjacent property 2.5 km west of Sarah target



# Vale's Voisey's Bay Deposit Model



- Nickel sulphides collect at base of thicker intrusions and within feeder dykes.
- Plus footwall high grade veins
- 2015 P+P Reserves: 36.1 MT @ 2.24% Ni, 1.05% Cu, 0.13% Co (2015 SEC Form 20F Disclosure)

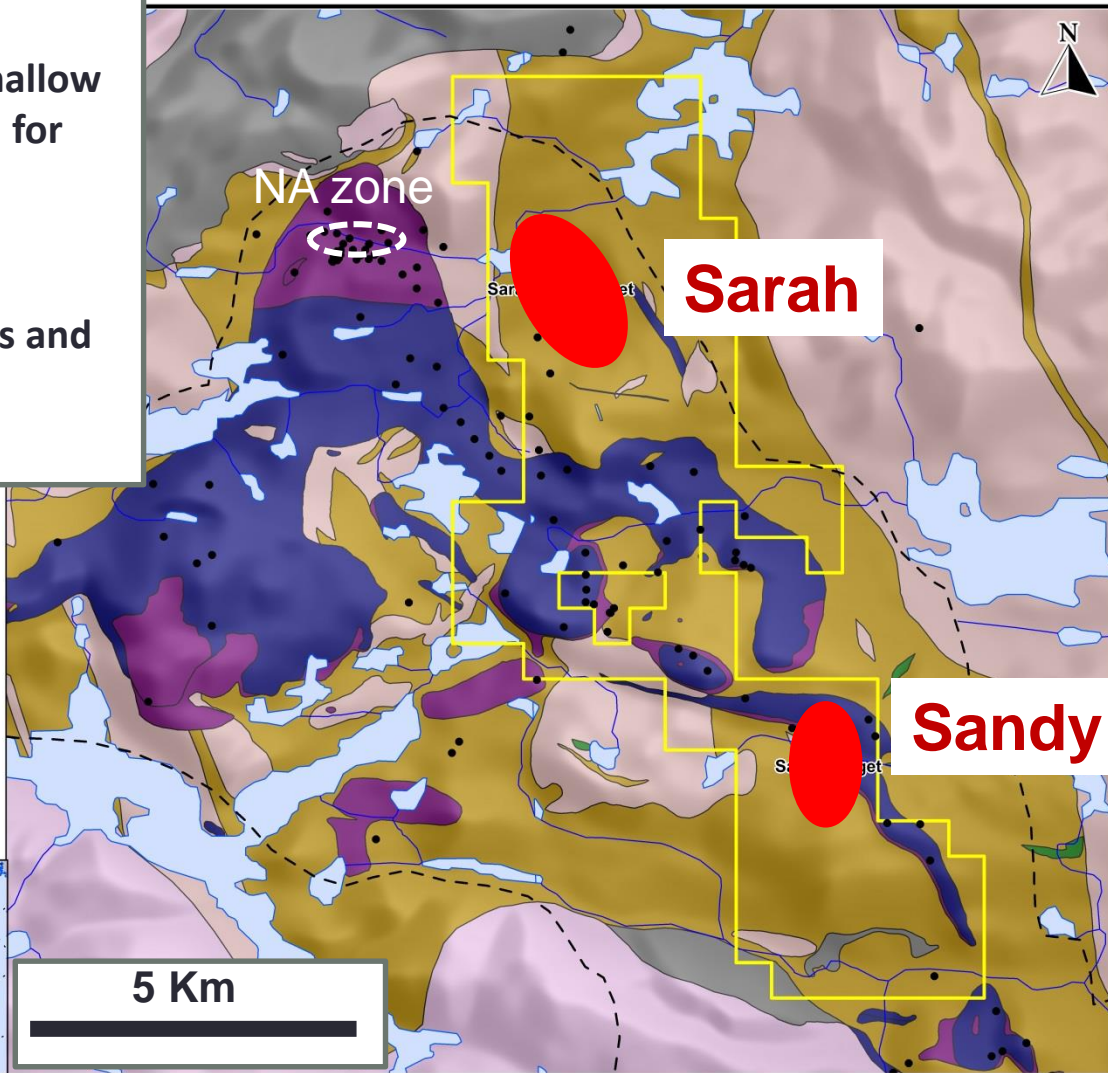


# South Voisey's Bay (SVB) Drill Targets

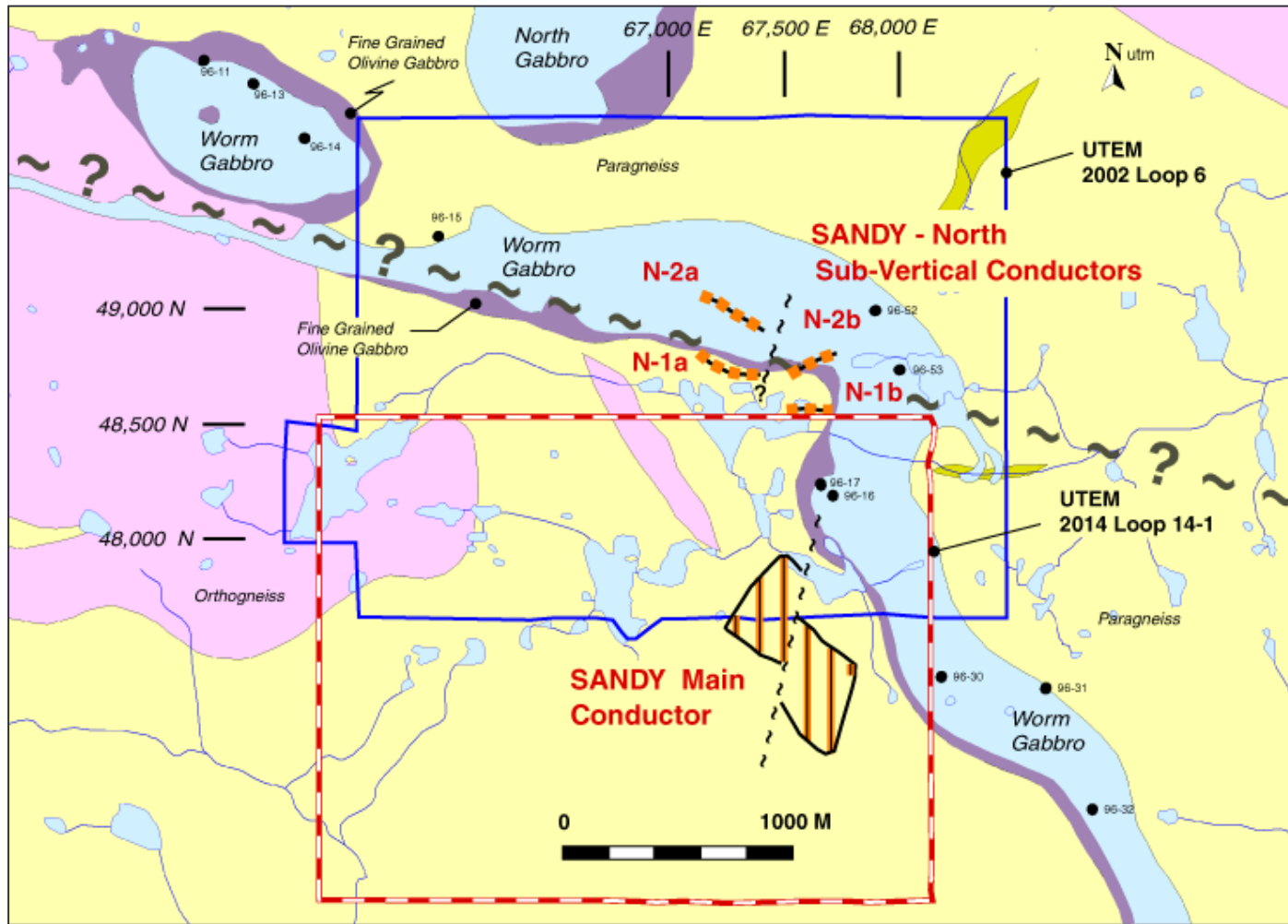
**SANDY TARGET:** 5 shallow conductors targeted for first phase drilling

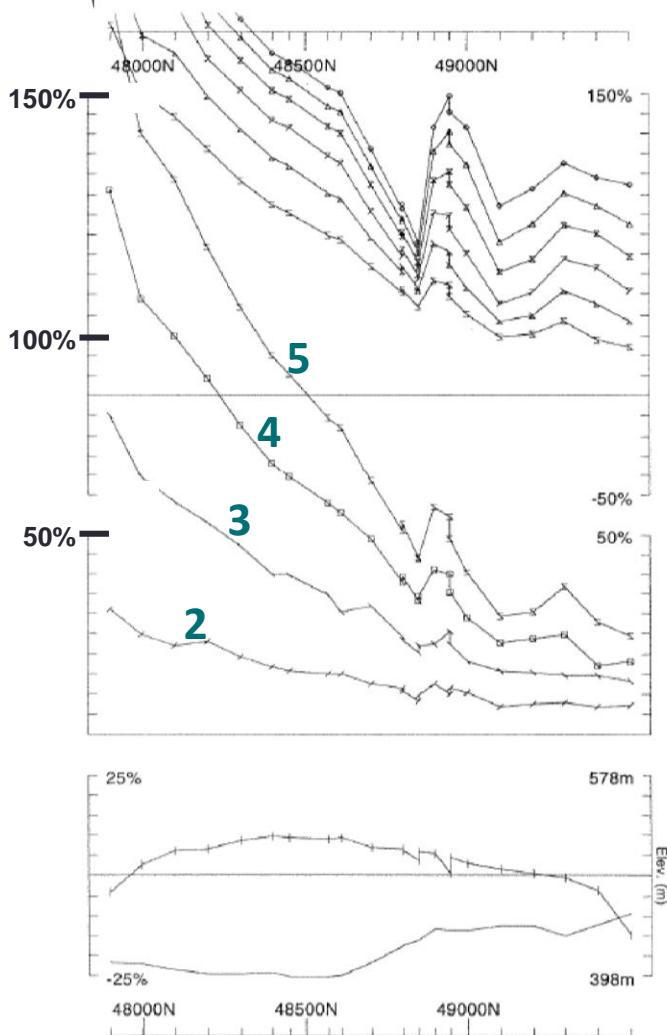
**SARAH TARGET:** proposed geophysics and drilling

-  Mafic dyke
-  Anorthosite
-  Gabbro
-  Olivine gabbro
-  Pants Lake intrusive suite
-  Granitoid
-  Orthogneiss
-  Paragneiss
-  Amphibolite gneiss
-  Mafic gneiss



Drill ready shallow conductors from 2014 UTEM survey





Loop 6 EM Response Inside Loop

UTEM Survey at: South Voisey Bay Project PN231 SVB  
For: Falconbridge Ltd.  
**LAMONTAGNE** GEOPHYSICS LTD  
Job Surveyed: A10347  
Job Name: 0217  
Project: 27502

Loop: 6  
Secondary: (Chn - Ch1)/(Hpl)  
Point Norm.at x,y,z  
Line: 674E (67100,48800,420)  
Compt: Hz Base Freq. 1.008 Hz

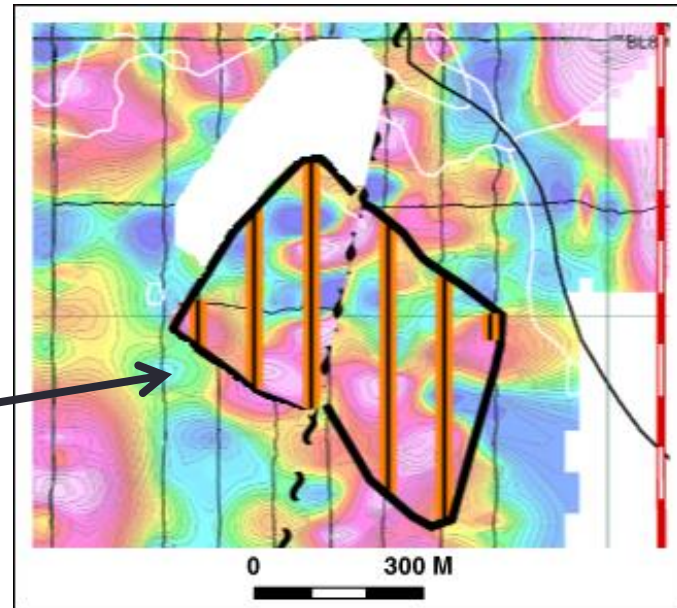
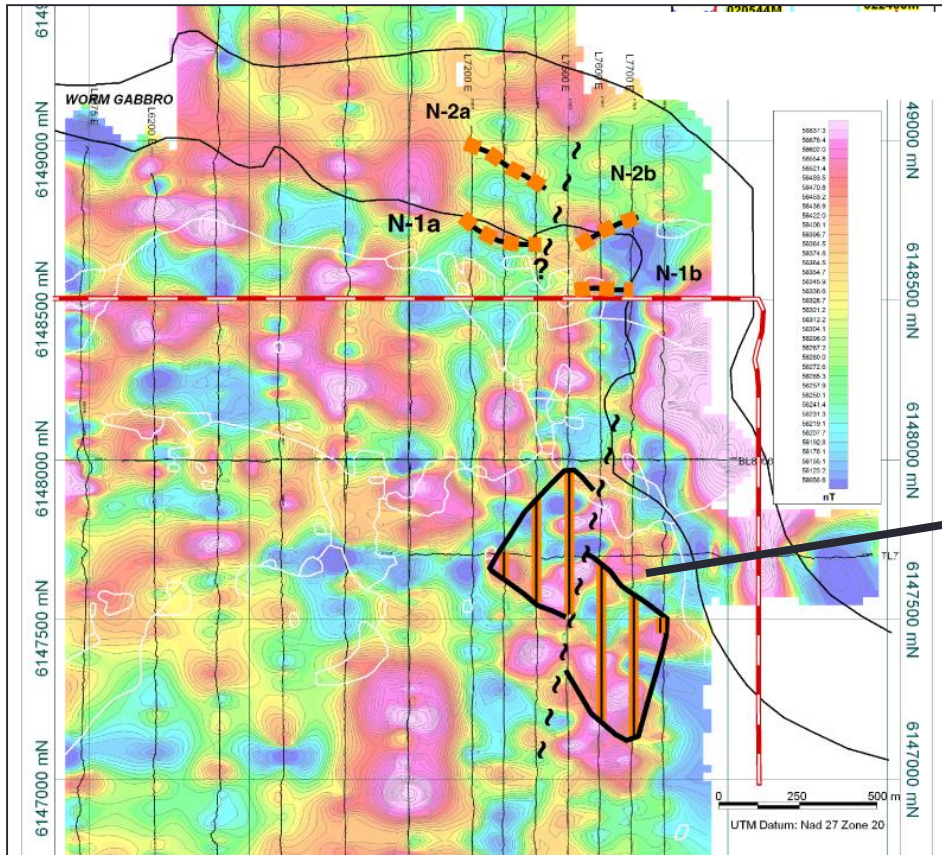
## Sandy EM Anomaly (Ovoid-Style Target)

- “The 4Hz UTEM data indicate a high conductance source located off the south ends of lines 674 and 676 of the SVB loop 6 data. It was confirmed by repeating Line 674 at 1Hz”
- “Large anomalous late time response at south end of this line”
- “Response amplitudes are similar to those observed in Utem data over Voisey’s Bay”
- “EM anomaly correlates with a regional second order magnetic anomaly”

*Jules J. Lajoie, PhD, PEng, FEC, FGC (Hon)*  
2015: *In-house geophysical interpretation on the Commander 2014 UTEM 3 survey. Unpublished.*



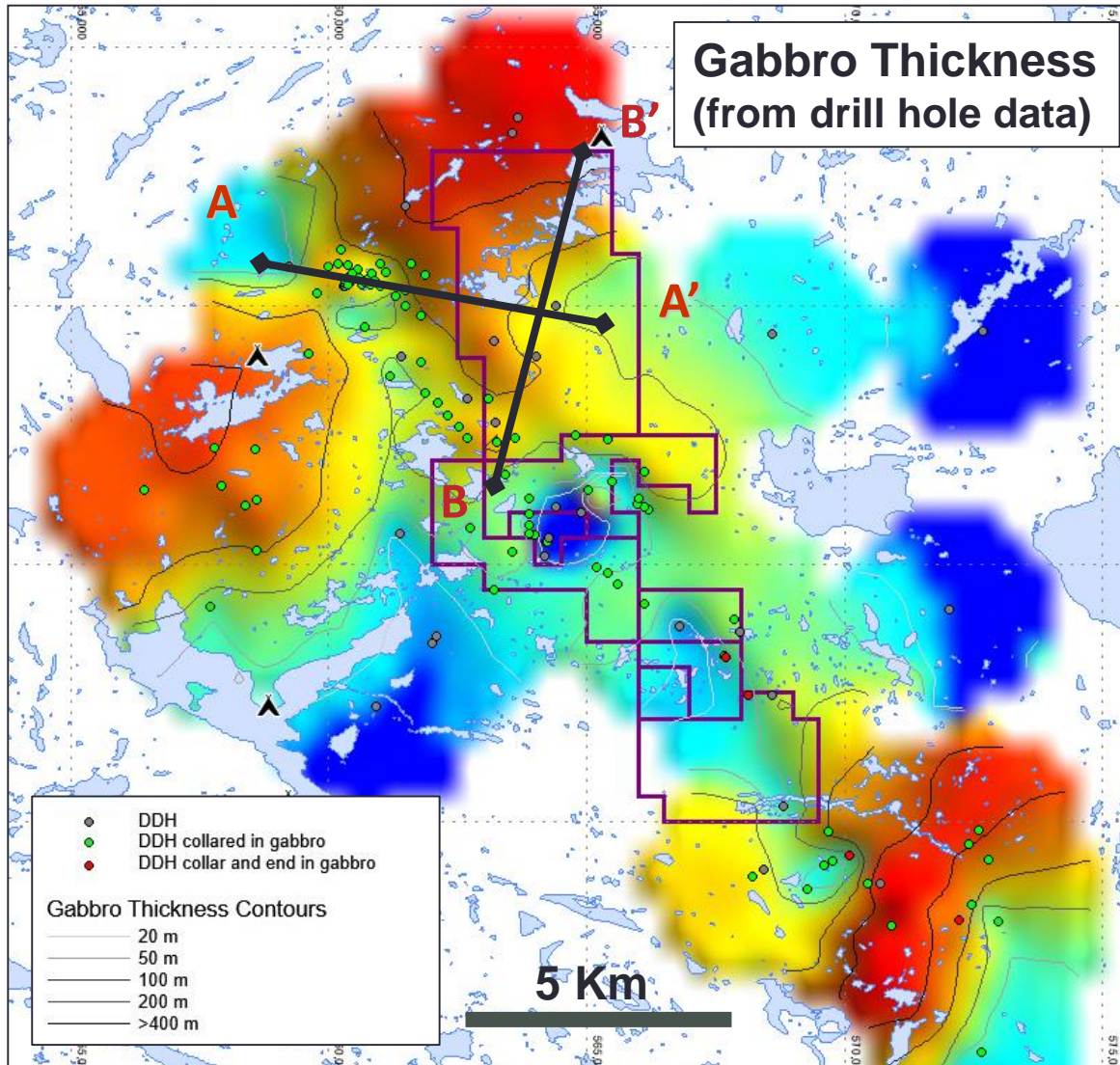
## UTEM Conductors on Ground Magnetics



Showing Fault Displacement Removed On Ground Magnetic Data. Shallower SW edge coincides with a magnetic high



# SVB Sarah Target



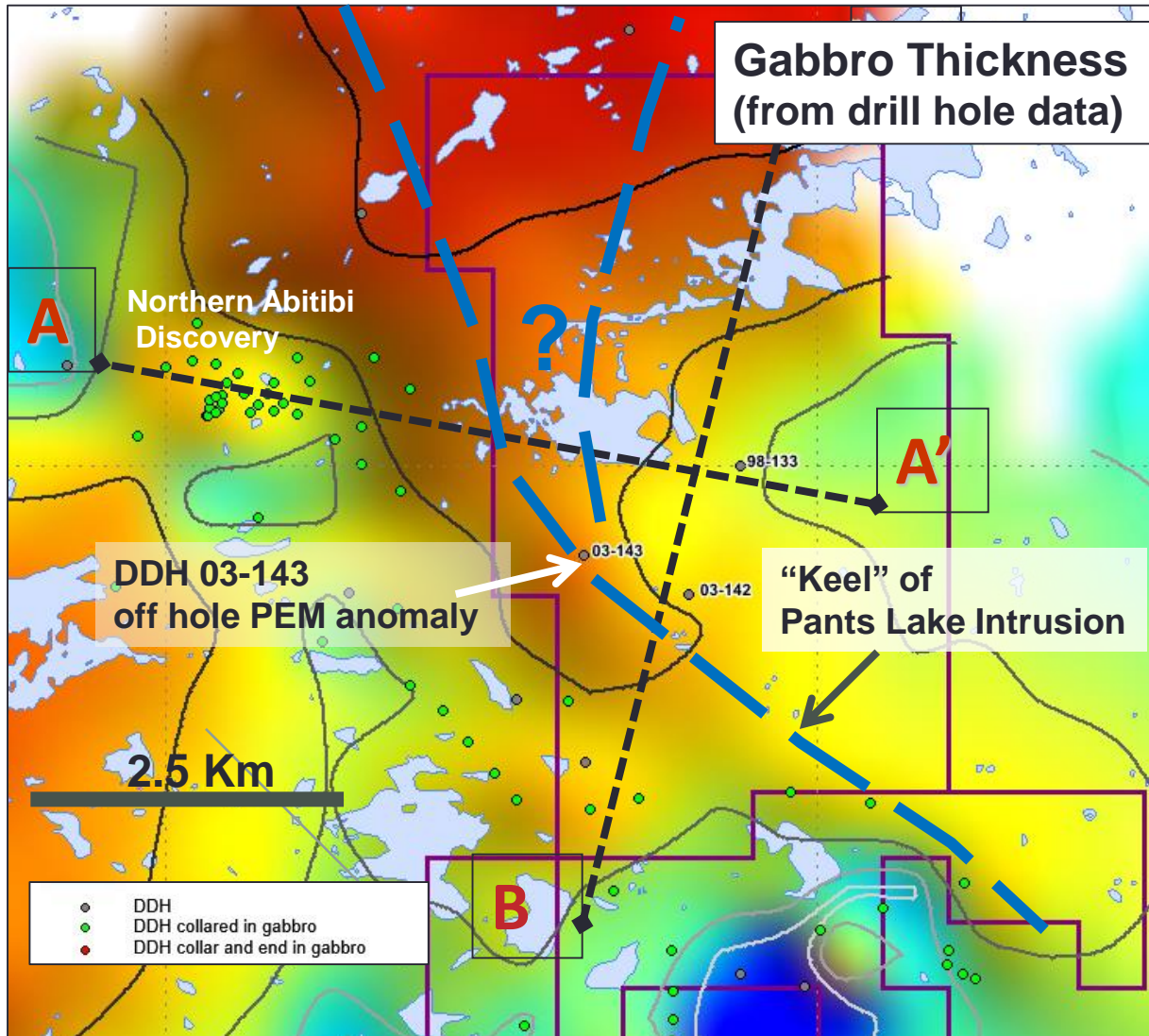
Sarah Target: an “Eastern Deeps”-style target at base of thickest part of the Black gabbro”

Off-hole PEM anomaly in hole 03-143

Needs additional UTEM 5



# SVB Sarah Target Detail



Sarah Target: an “Eastern Deeps”-style target at base of thickest part of the Black gabbro”

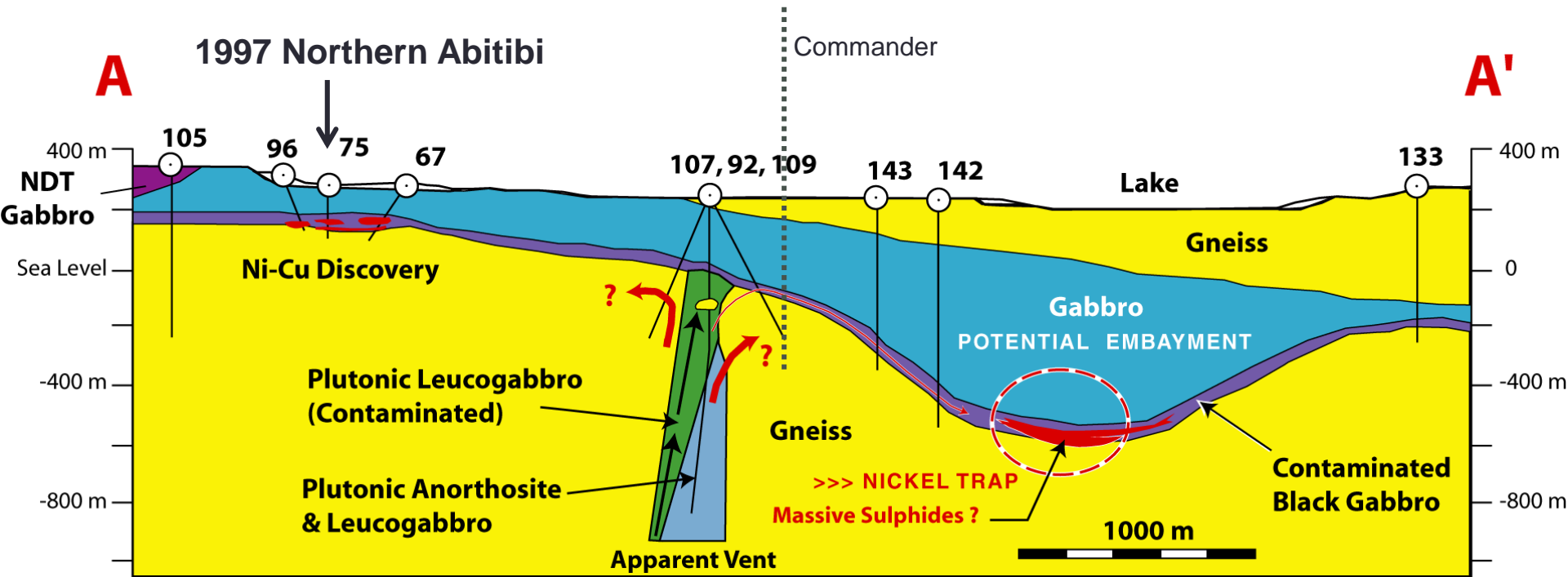
Off-hole PEM anomaly in hole 03-143

Needs additional UTEM 5



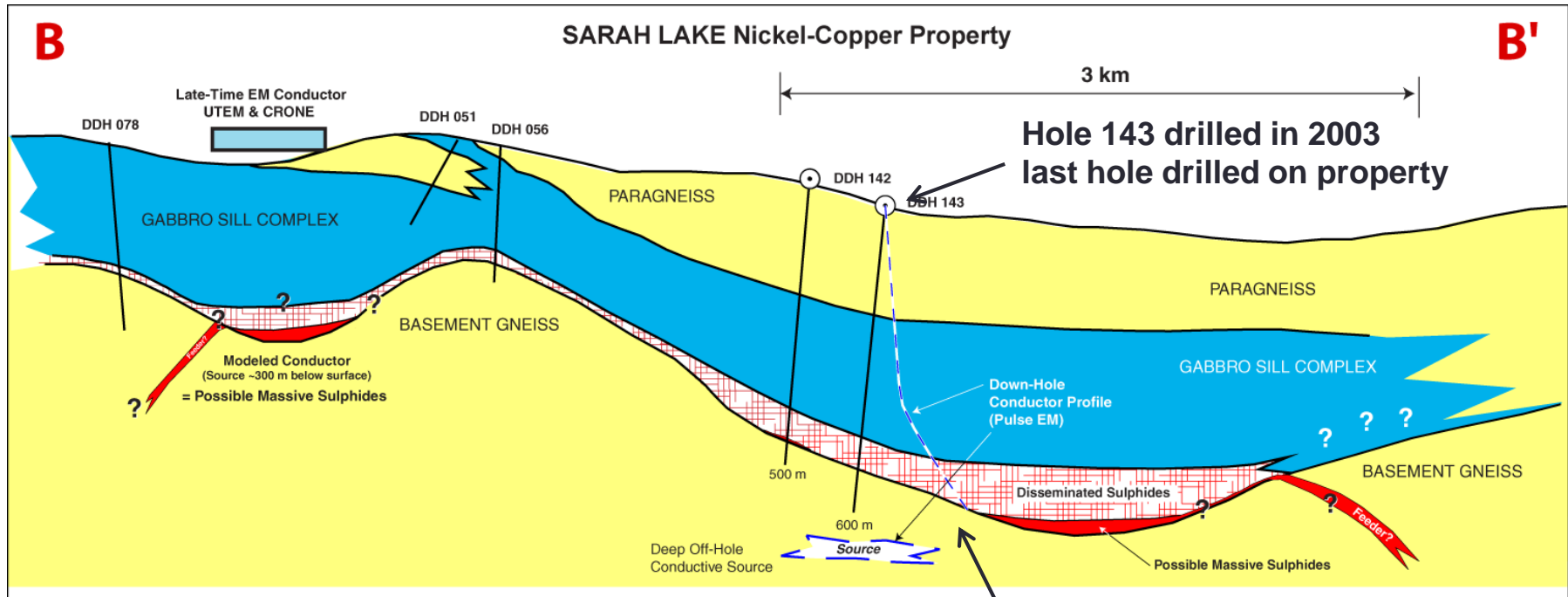
# South Voisey's Bay Sarah Target

## Cross Section looking North



# South Voisey's Bay Sarah Target

## Cross Section looking West

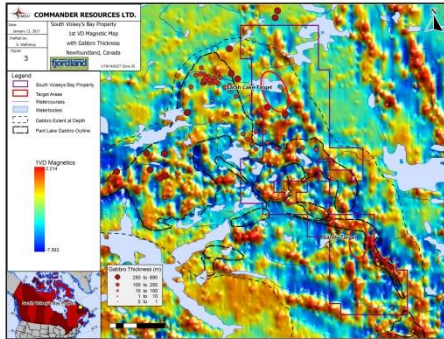


Off-hole Pulse EM anomaly

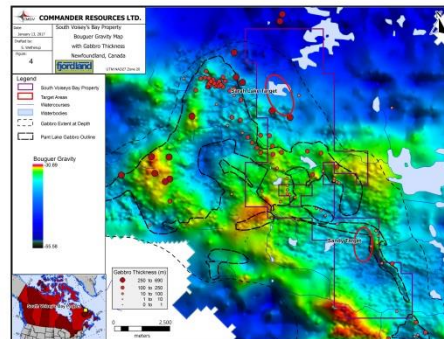


# SVB- Extensive geophysics to be processed

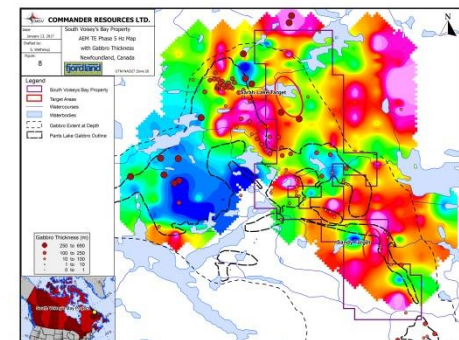
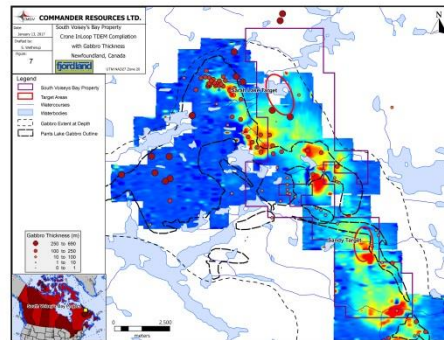
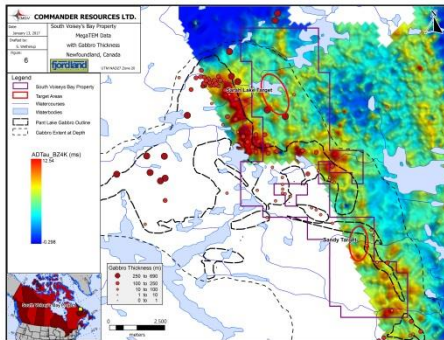
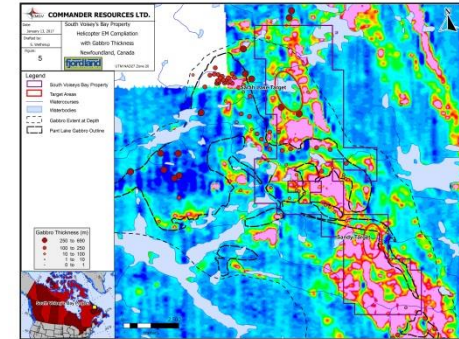
## Magnetics



## Gravity



## Heli AEM



## Megatem

## Ground PEM

## AMT

**integration and modelling of existing geophysical data  
expected to generate additional targets**