



Voisey's Bay Mine  
(Vale)

***Exploring opportunities with demonstrated potential for exceptional mines***

**Labrador Gold & Nickel/Copper/Cobalt Projects**

Newfoundland & Labrador, Canada

**BuchansResources**

*May 2024*

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### Qualified Person

*Paul Moore M.Sc., P.Geo. (NL), Vice President Exploration of Buchans Resources Limited and a Qualified Person as defined by National Instrument 43-101, has approved the scientific and technical disclosure contained in this presentation.*

Voisey's Bay Style Ni-Cu-Co

Orogenic Au

**Canterra Minerals (TSXV:CTM)**  
**Buchans Mining Camp (Zn-Pb-Cu-Ag-Au)**  
**& gold projects** - adjacent Calibre Mining -  
\*Valentine mine (3.96 Moz gold M&I - under construction)

**Minco Exploration**  
Zn-Pb projects  
Tara – Boliden JV

Toronto

## Canadian Exploration & Development Company focused on districts & opportunities with *demonstrated potential for exceptional mines*

- Nickel-Copper-Cobalt - Voisey's Bay, Labrador - *world-class Ni-Cu-Co mining district (Vale)*
- Gold - Labrador (Homestake analogue) - *unexplored frontier - potential for world-class gold deposits*

### Other Assets (equity)

- **Royalties Inc.** (formerly Xtierra Inc.) - shares (~15%), **Minco Exploration Plc.** - shares (~14%) - Zinc - Ireland
- **Canterra Minerals Corporation** (~14% of common shares, plus exchangeable warrants) - exposure to base metals & gold projects - Buchans (base metals) & gold projects - central Newfoundland - on strike/adjacent - Calibre Mining's Valentine mine (*under construction*)
- *BRL to retain ~\$3M equivalent of Canterra shares to fund nickel, copper, cobalt & gold exploration assets in Labrador & general working capital and distribute remainder to Buchans shareholders during Q2 2024*

**Royalties Inc. (RI:CSE)**  
advanced silver+base metals project

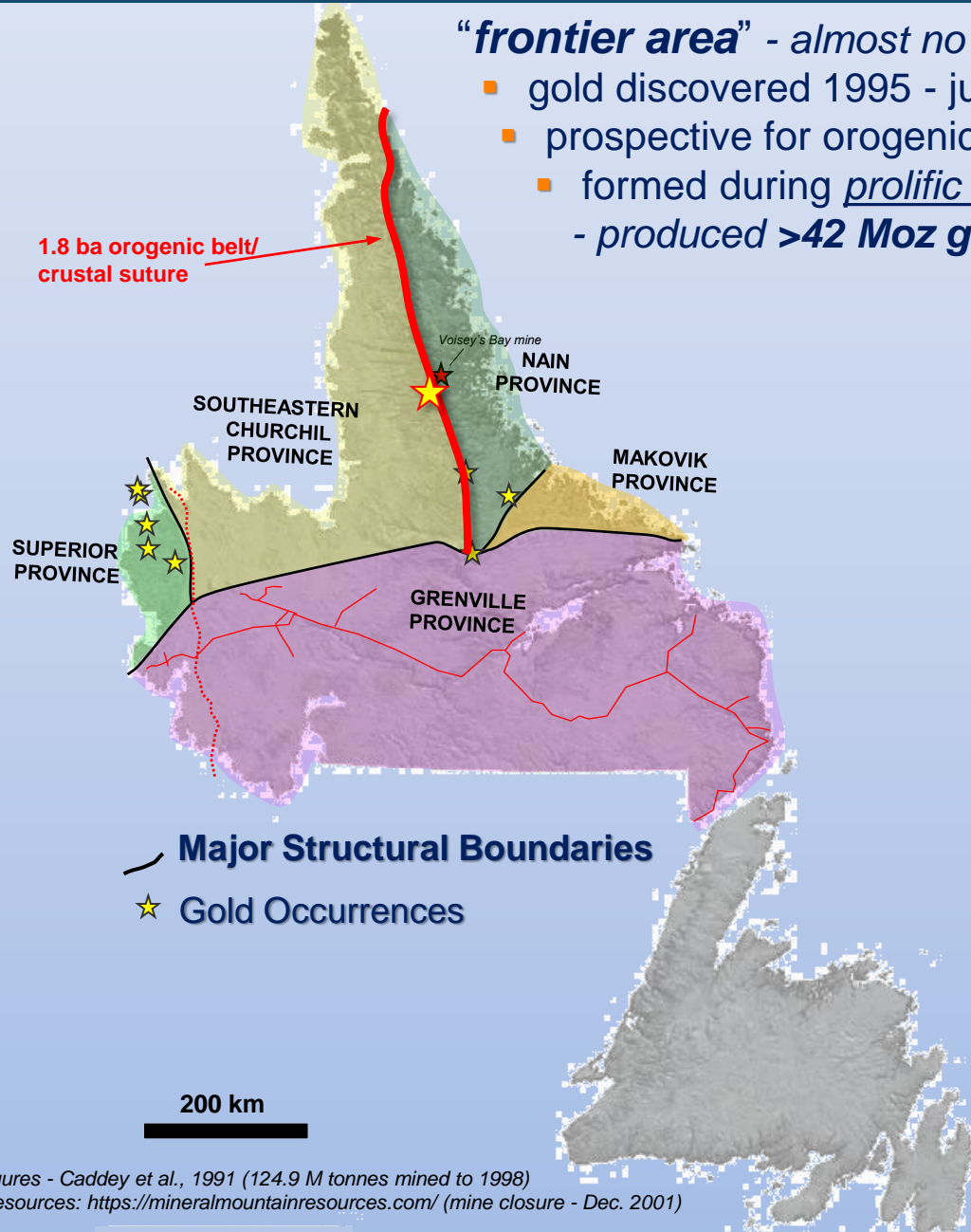
# Buchans Resources

## Tasiuyak Gold Project

Paleoproterozoic Orogenic Iron  
Formation-hosted Gold

Labrador, Canada

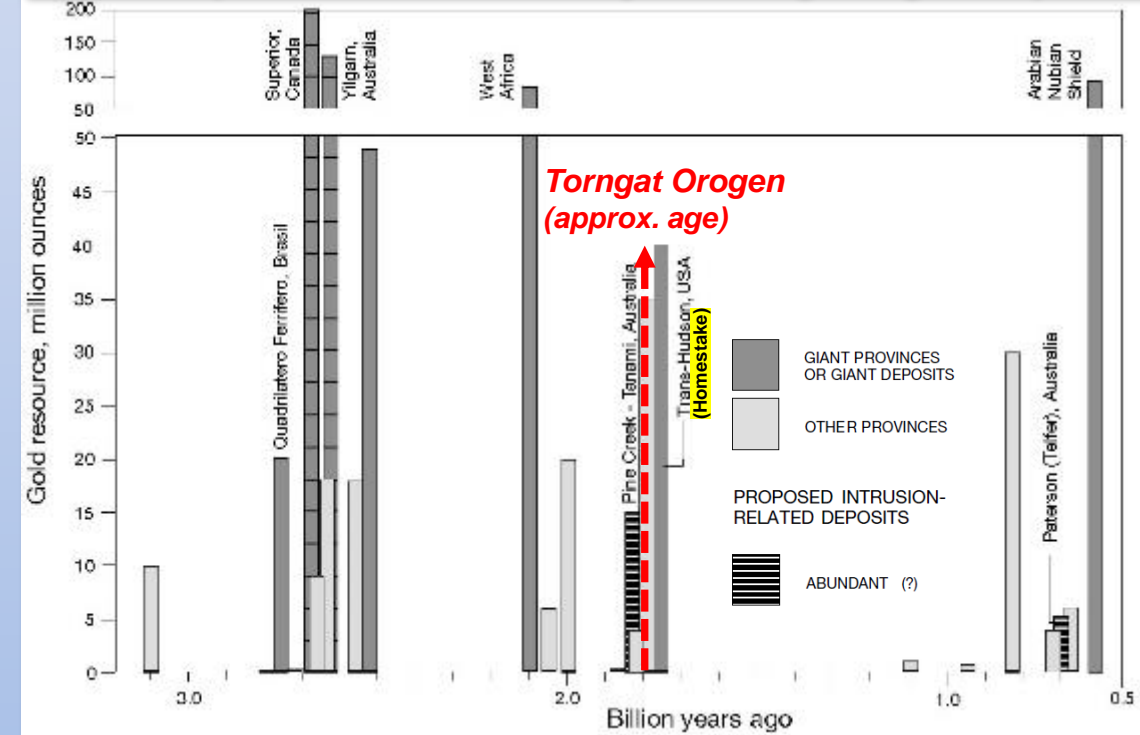




**"frontier area"** - almost no history of gold exploration

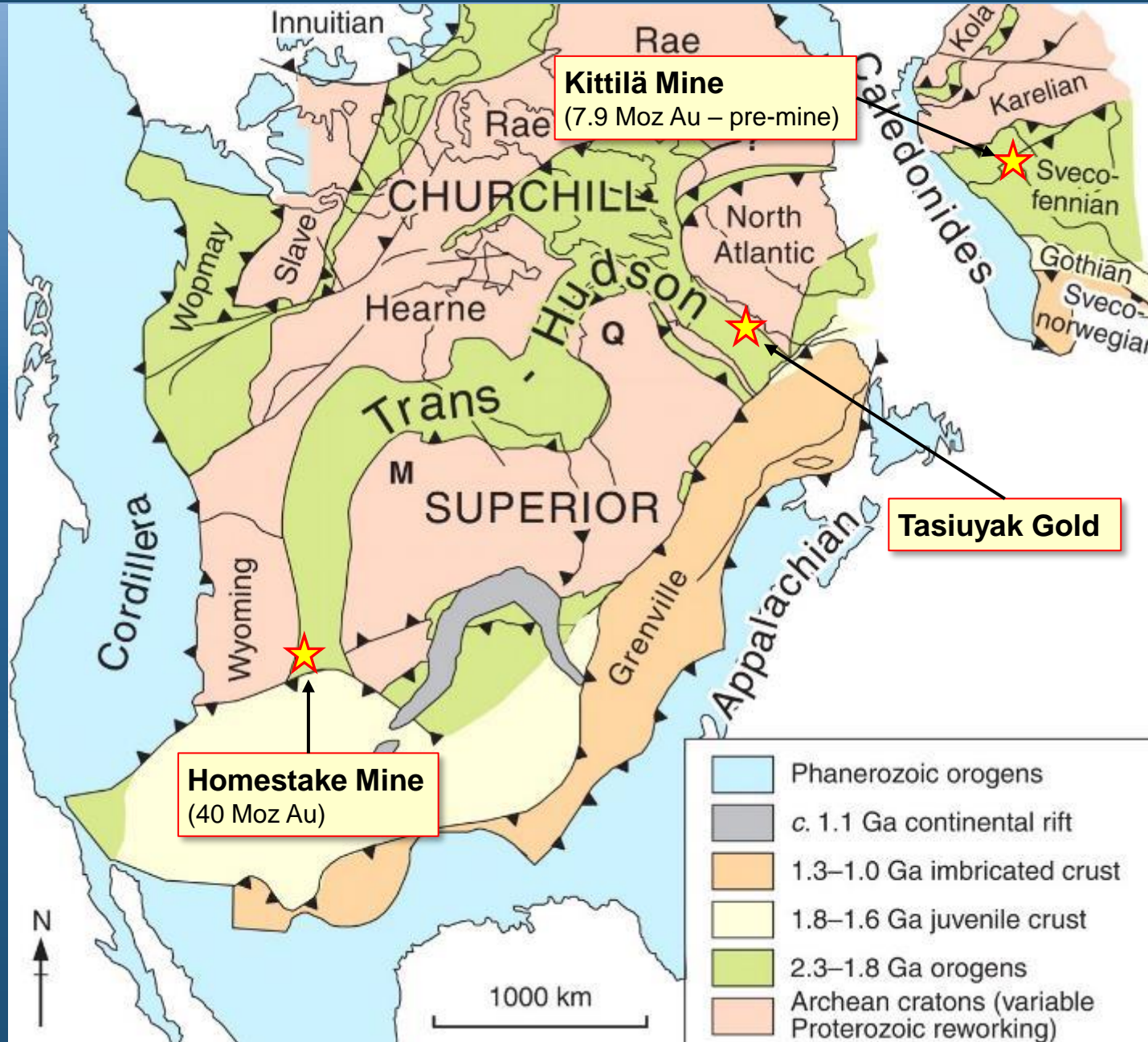
- gold discovered 1995 - junior company exploring for nickel - "Voisey's Bay rush"
- prospective for orogenic **iron formation-hosted gold** deposits
- formed during prolific period for orogenic gold deposits - analogues include **Homestake** - produced **>42 Moz gold & 9 Moz silver** (~152 Mt averaging ~8.4 g/t Au (0.24 oz/ton)\*

## ...prolific period in Earth's history - for orogenic gold deposits



Distribution of gold production - Precambrian orogenic gold deposits. After Goldfarb et al., (2001) and Groves et al., (2003). Approx. age Tongat Orogen after Bertrand et al., (1993). Homestake age after Morelli et al., 2010 (arsenopyrite (Re-Os) 1,736±8 Ma)

\*Resource/ grade figures - Caddey et al., 1991 (124.9 M tonnes mined to 1998)  
 Mineral Mountain Resources: <https://mineralmountainresources.com/> (mine closure - Dec. 2001)

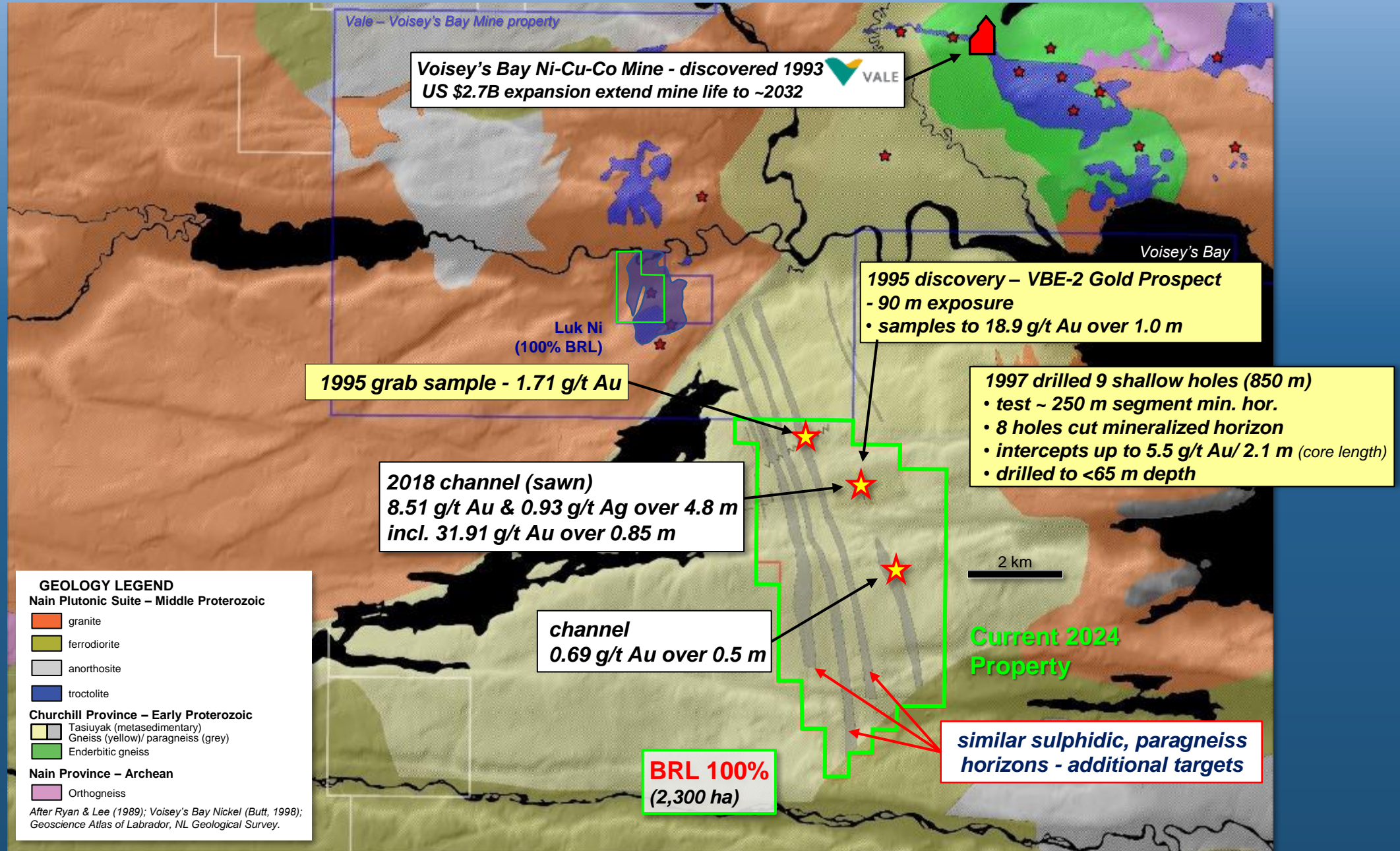


## Paleoproterozoic Gold

Tasiuyak covers rocks analogous with gold-bearing orogenic rocks that hosts similar age (~1.8 billion years old) gold deposits (i.e., Homestake & Kittilä)

ores dominated by sulphidic iron-rich rocks including metasediments (Homestake) and mafic volcanics (Kittilä)

“formational host” - not fault structures or veins - tend to form large-tonnage deposits with large gold inventories





*Discovery outcrop  
samples up to 18.9 g/t Au over 1.0 m*



**2018 Channel Sampling**



*1997 core  
tested horizon to <65 m  
depth over 250 m strike*

*looking south – July 2018*





~4.8 m

8.51 g/t Au & 0.93 g/t Ag over 4.8 m

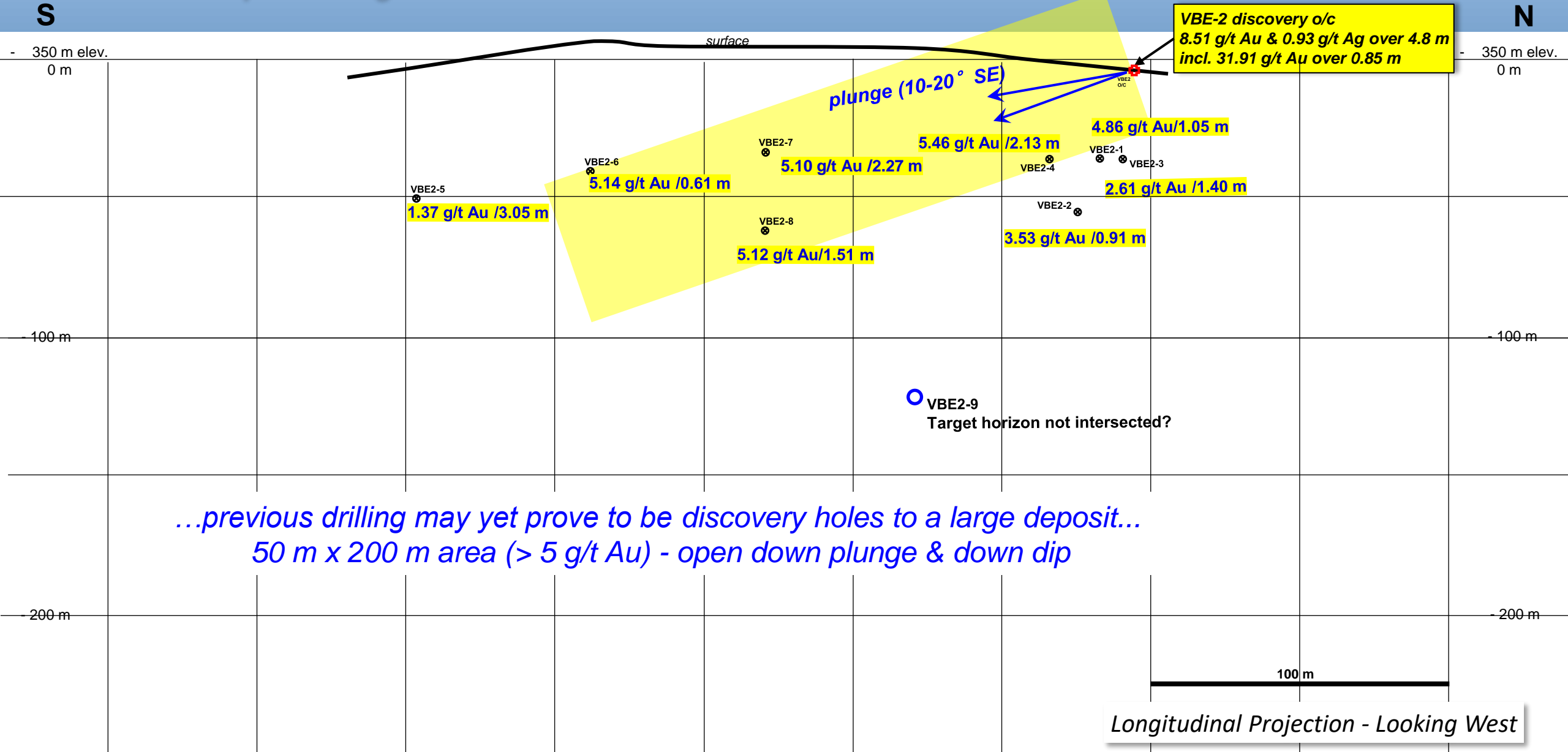
*Formational sulphide iron formation host (no Qtz veins)... significant tonnage potential*

31.91 g/t Au / 0.85 m / 320008

July 2018

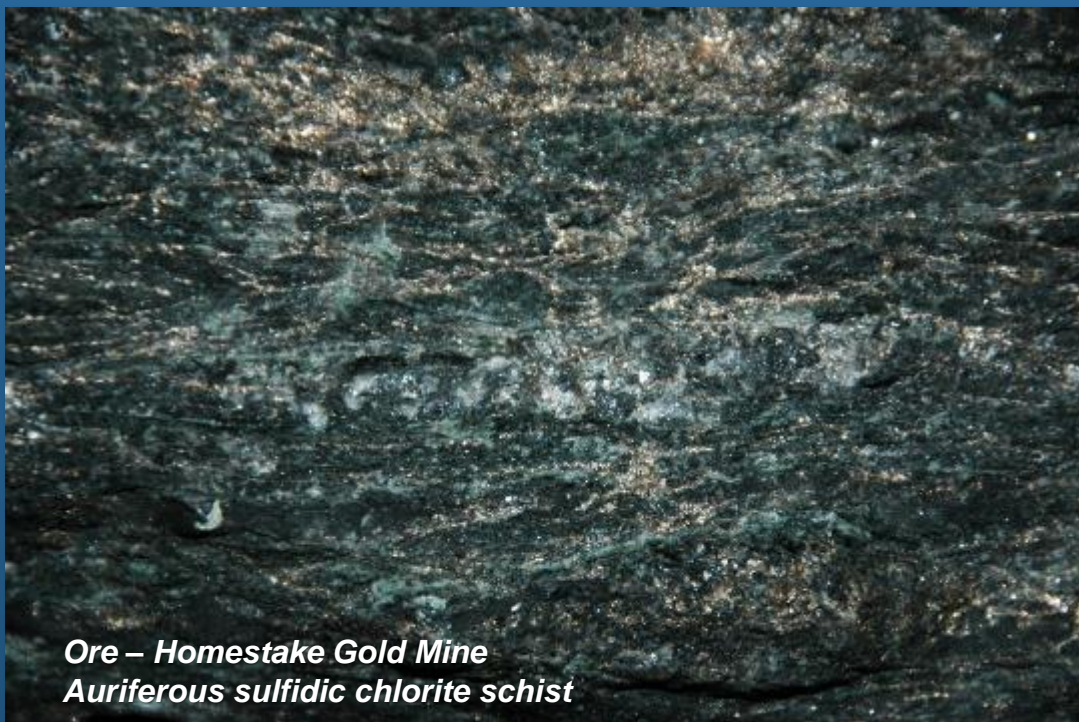
# VBE-2 Prospect

## Potential at Depth – Target Scale



## Possible Analogue

- Homestake - gold occurs almost exclusively in Homestake Formation... mostly stratabound ore as segregations of pyrrhotite, arsenopyrite, minor pyrite, gold, & minor (Caddey et al., 1991)
- Tasiuyak - gold occurs almost exclusively in sulphidic paragneiss... mineralization dominated by pyrrhotite (pyrite), chalcopyrite, arsenopyrite, minor löllingite & (\*free gold)



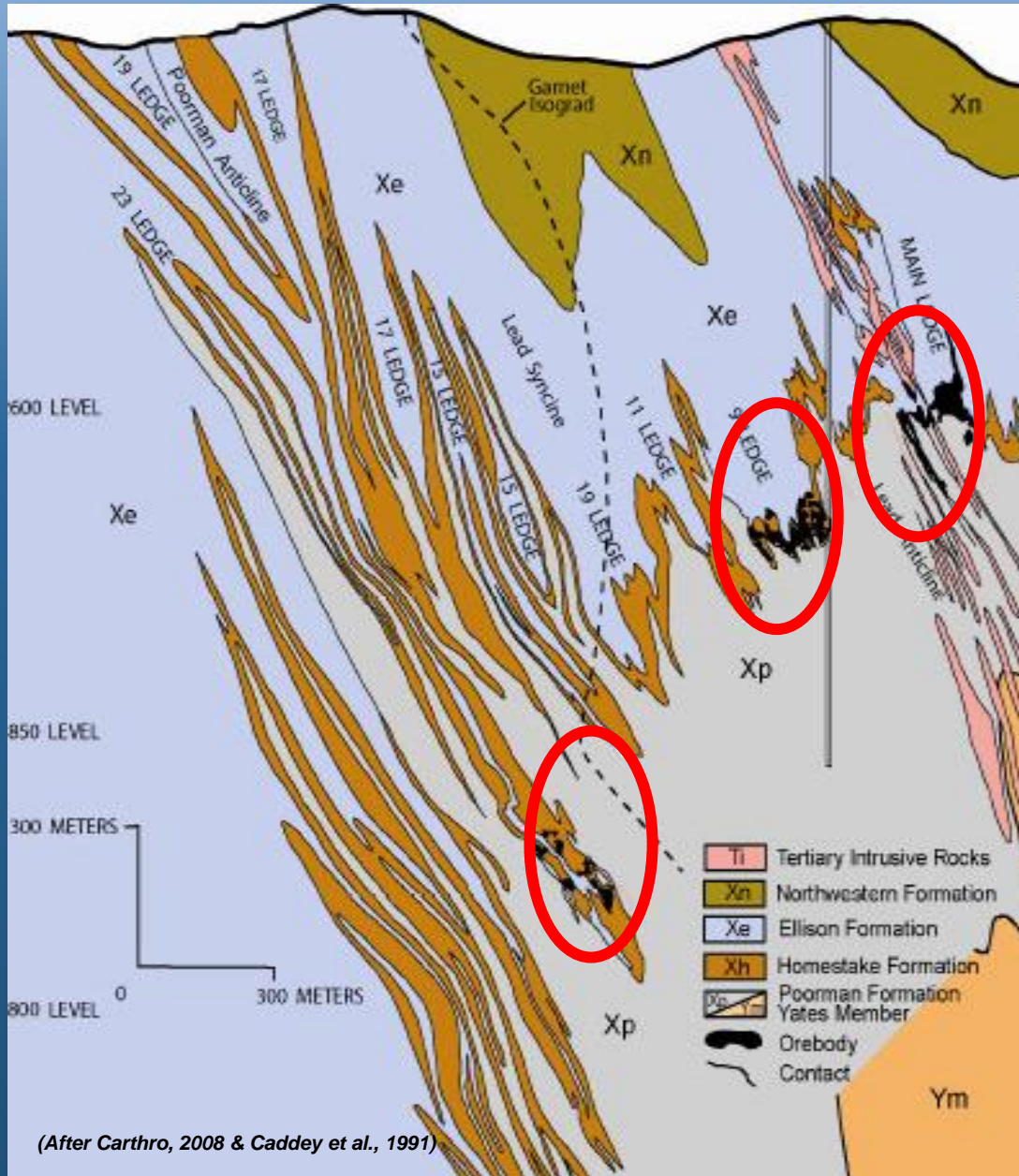
Ore – Homestake Gold Mine  
Auriferous sulfidic chlorite schist

## Homestake Gold Mine (South Dakota, USA)



- produced >42 Moz gold & 9 Moz silver from ~152 M tonnes ore averaging ~8.4 g/t Au (0.24 oz/ton)\*\* between 1876 and 2001

\*\* Resource/ grade figures - Caddey et al., 1991 (124.9 M tonnes mined to 1998)  
Mineral Mountain Resources: <https://mineralmountainresources.com/> (mine closure - Dec. 2001)



Also at HOMESTAKE...

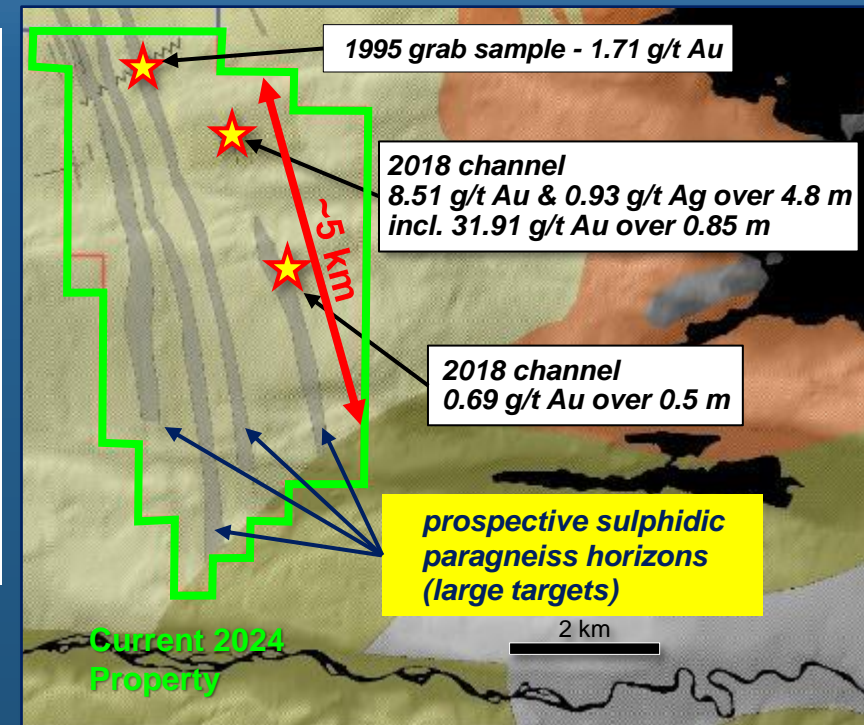
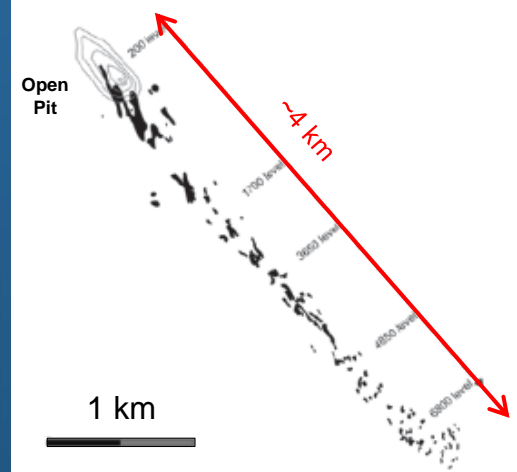
...“ledges”...synclinal folds...host most ore...

...ore ledges (hinges) linear zones extend up to >5 km down plunge

...targeting hinges may be key to exploring prospective horizons at Tasiuyak...isoclinal folds typical at Tasiuyak...

...multiple prospective sulphidic horizons - large targets

**Homestake**  
(Main Ledge - plunge ~35°)



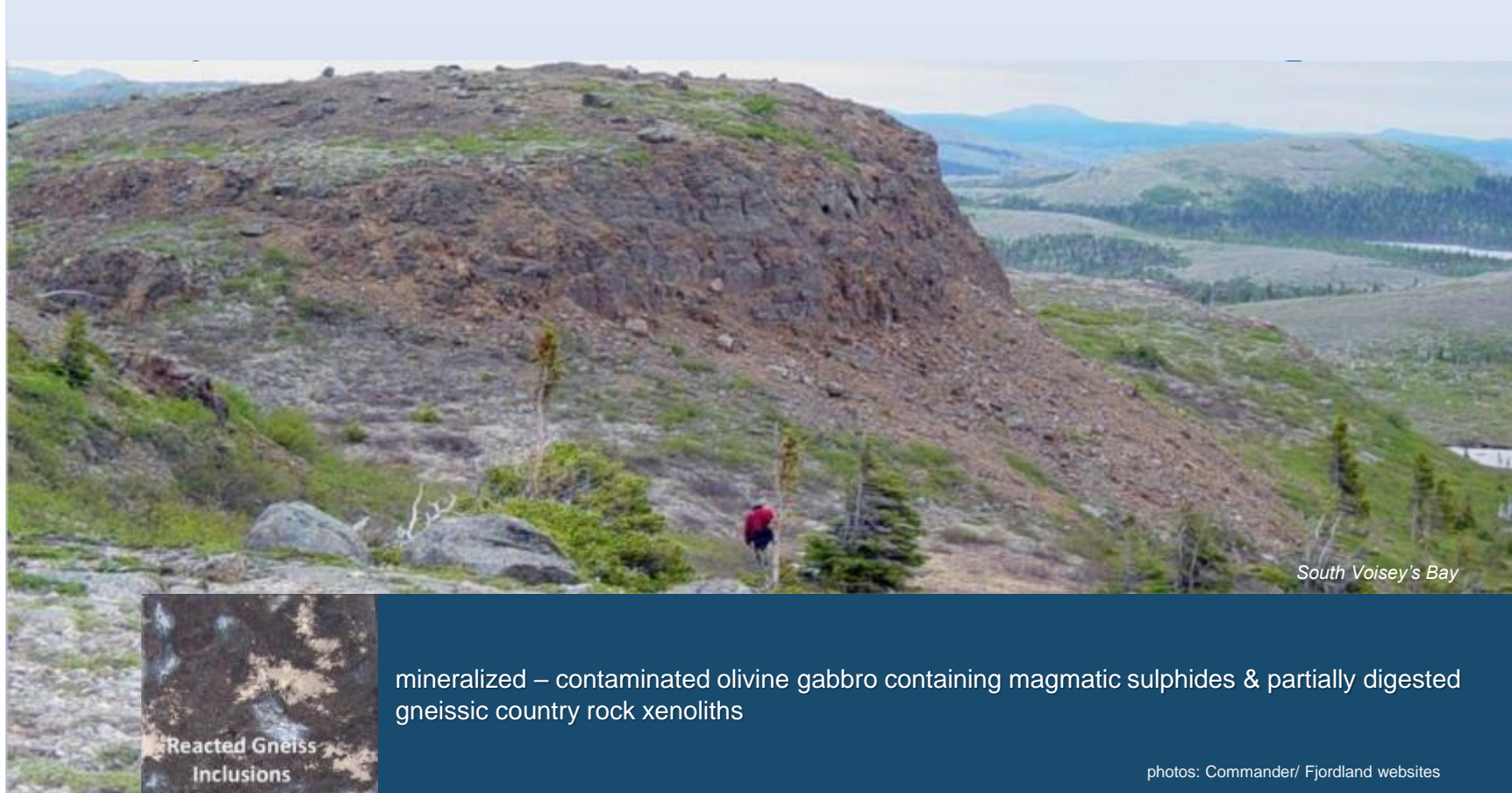
- *Outstanding opportunity* - prospecting may yield important discoveries
- *frontier area* - almost no prior gold exploration - gold discovered during Voisey's Bay Ni rush
- *district potential* - formational targets capable of yielding world-class accumulations of gold
- *multiple prospective horizons* to be prospected - target fold closures - "ledges"
- *drill ready* - VBE-2 "discovery" open down plunge (>250 m) and at depth >65 m
- *accessible* - 6 km from tide-water, established mining area adjacent to Vale's Voisey's Bay mine

# Buchans Resources

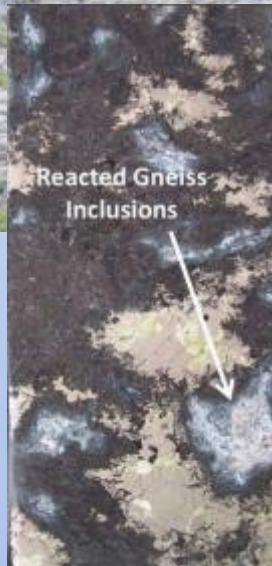
## Labrador Nickel-Copper-Cobalt Projects

### Voisey's Bay Meso-Proterozoic Magmatic Ni sulphides

Labrador, Canada



South Voisey's Bay



mineralized – contaminated olivine gabbro containing magmatic sulphides & partially digested gneissic country rock xenoliths

photos: Commander/ Fjordland websites

- Voisey's Bay – **discovered 1993** – Diamond Fields Resources – **exploring for diamonds**
- prospectors (Chislett & Verbiski) – **gossan seen from helicopter** – initial assays high Cu - low Ni (1993)
  - gossans associated with E-W trending troctolite dyke - *surrounding outcrops dominated by gneiss*
  - drilling 1994 - 2<sup>nd</sup> hole - **71 m @ 2.23% Ni, 1.47% Cu, 0.123% Co**

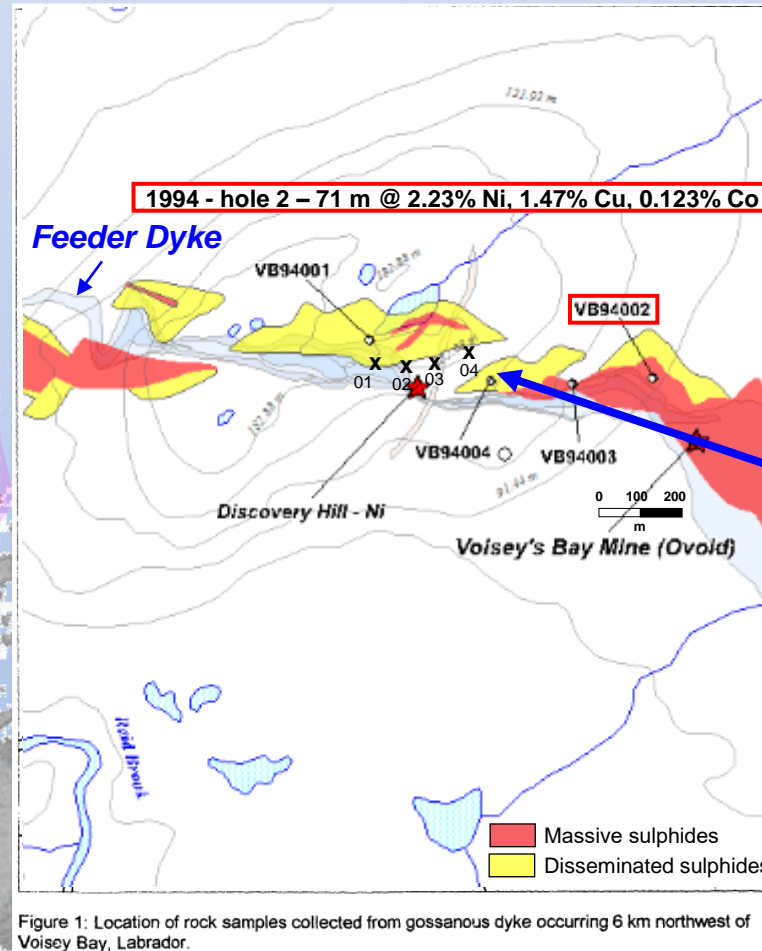
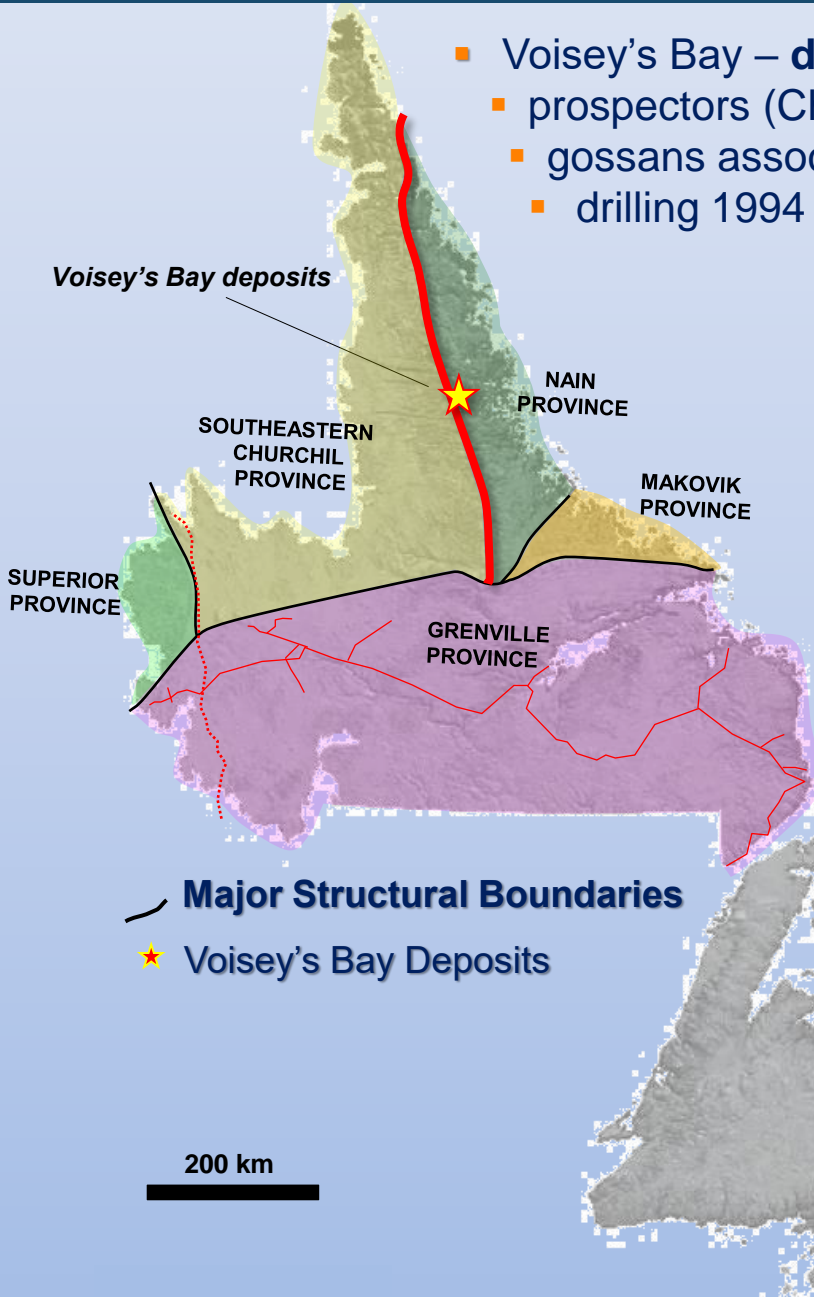
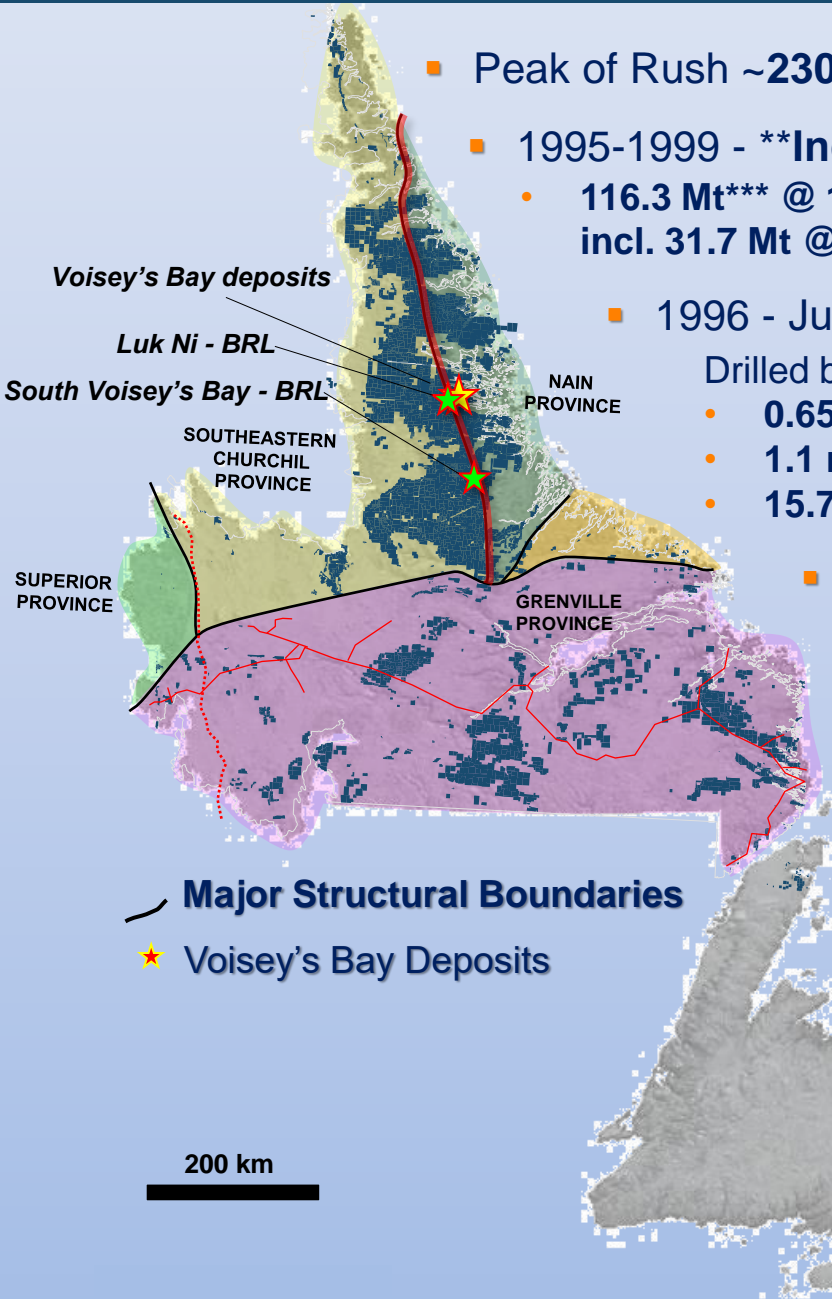


Figure 1: Location of rock samples collected from gossanous dyke occurring 6 km northwest of Voisey Bay, Labrador.

Client: Archean Resources Ltd. Au Fire Assay/Geochem Certificate  
 Geologist: A. Chislett Eastern Analytical Limited  
 Project: P.O. Box 187,  
 Sample: Rock Little Bay Road,  
 DskFile: 196-7418 Springdale, Nfld  
 DateIn: Sept 24/93 ROJ 170  
 DateOut: Sept 28/93 Fone: 709-673-3909  
 Fax: 709-673-3408

SAMPLE NUMBER	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Cu %	Ag oz/T
01	51	>10000	63	95	>6.0	214	6.30	1.00
02	39	>10000	12	100	>6.0	2300	1.49	0.20
03	12	>10000	52	52	>6.0	210	2.60	0.10
04	340	>10000	12	65	>6.0	900	1.72	0.18





- Peak of Rush ~230,000 claims in Labrador\* – mostly focused on Proterozoic igneous complexes
- 1995-1999 - \*\*Inco Purchased 100% Voisey's Bay for ~US \$4.4 billion (equiv. shares & cash)
  - 116.3 Mt\*\*\* @ 1.71% Ni, 0.92% Cu & 0.09% Co (1998 pre-mining all categories – measured, indicated & inferred) incl. 31.7 Mt @ 2.83% Ni, 1.68% Cu, & 0.12% Co (Ovoid Open Pit) - mining started 2005
- 1996 - Junior Co. ~85 km south Voisey's Bay - **mineralized olivine gabbro (Pants Lake) - SVB**
  - Drilled by Teck (JV)
    - 0.65 m - 1.93% Ni, 1.07% Cu and 0.26% Co (hole 97-67)
    - 1.1 m of 11.9% Ni, 9.6% Cu, and 0.43% Co (hole 97-75)
    - 15.7 m - 1.13% Ni, 0.78% Cu, 0.20% Co (hole 97-96)
- 2016 - BRL (BMC) staked key portions SVB project - incl. high-grade intercepts
  - compiled historic data - **Priority target - untested AMT anomaly near high-grade intercepts**
- 2018 - BRL staked claims - within Vale's Voisey's Bay mine property - **Luk Project**
  - 2022 - Vale announce Reid Brook Extension discovery ~8 km NE of Luk
  - 2023 - BRL compiled historic data - **identified exploration potential at depth**

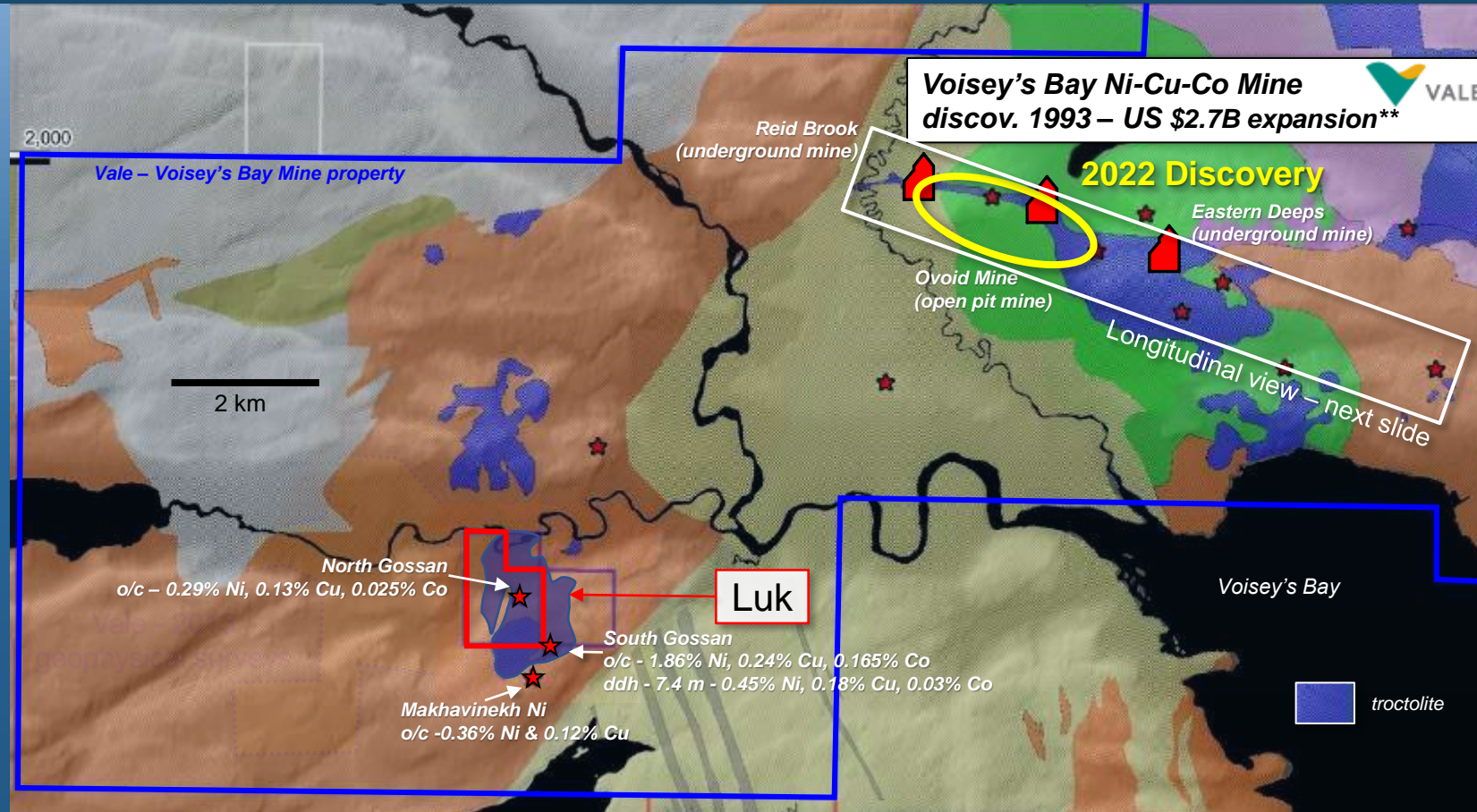
\* Historic Claims (NL Geoscience Atlas, July 2023)

\*\* Reuters (May 26, 2004) & Company Reports (Inco)

\*\*\* pre-mining resource estimates – Inco 1998 Annual Report



# Voisey's Bay – Labrador (Ni-Cu-Co) LUK Property



## Luk Property - Voisey's Bay

100% BRL - 1.25 km<sup>2</sup> property covers Voisey's Bay Troctolite surrounded by Vale's Voisey's Bay mine property <8 km southwest of VB mine

2018 - US \$2.7 billion mine expansion (almost complete) - mine to operate to 2034 (transition open pit to underground)

2022 - Vale exploration success below 1,000 m (\*\*Reid Brook Extension - **2.79% Ni, 1.31% Cu/ 92.6 m**)

2023 - Vale intends to drill **300 km over next 5 yrs**

## BRL LUK Property Highlights

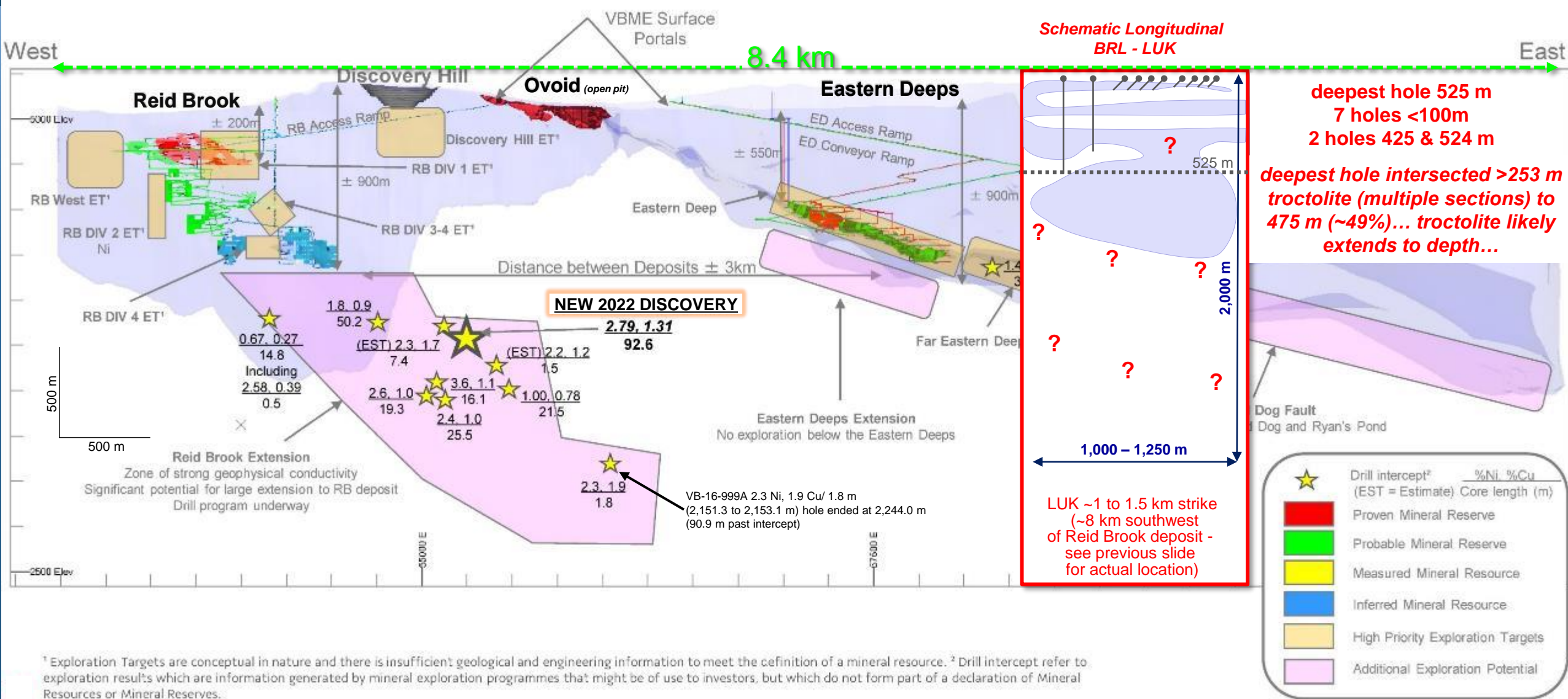
- historic surface samples incl. assays up to **1.86% Ni, 0.24% Cu, 0.165% Co**
- drilled intercepts up to **7.4 m @ 0.45% Ni, 0.18% Cu, 0.03% Co**

BRL - 2023 compiled exploration data - **exploration potential at depth >500 m**

\* pre-mining resource estimates – Inco 1998 Annual Report

\*\* 2022 Vale XXII Analyst & Investor Tour Presentation, Sept. 7th, 2022  
2023 Vale - PDAC-Atlantic Edge presentation

# Voisey's Bay – Labrador (Ni-Cu-Co) LUK Property – Vale's Recent Exploration Success



<sup>1</sup> Exploration Targets are conceptual in nature and there is insufficient geological and engineering information to meet the definition of a mineral resource. <sup>2</sup> Drill intercept refer to exploration results which are information generated by mineral exploration programmes that might be of use to investors, but which do not form part of a declaration of Mineral Resources or Mineral Reserves.

# Voisey's Bay – Labrador (Ni-Cu-Co) South Voisey's Bay Property

Mineralized olivine gabbro sill overlying gneissic country rock

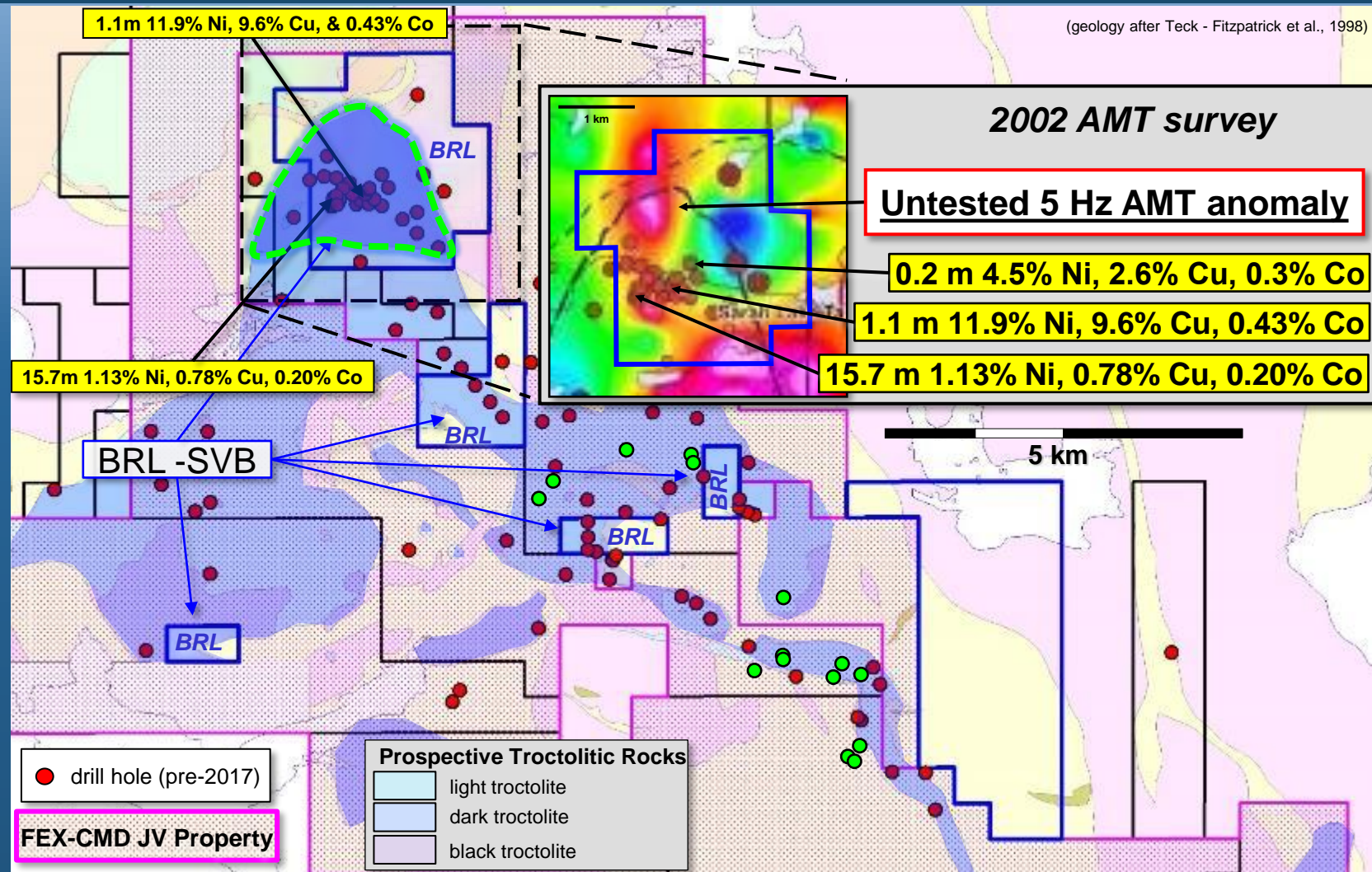


mineralized - contaminated olivine gabbro containing magmatic sulphides & partially digested gneissic country rock xenoliths (*confirmed Voisey's Bay style/age mineralization*)

GG showing - BRL Claims - South Voisey's Bay

photos: Commander/ Fjordland websites

# Voisey's Bay – Labrador (Ni-Cu-Co) South Voisey's Bay Property



BRL - 10.75 km<sup>2</sup> property covering mineralized troctolite - 85 km south of Voisey's Bay mine

Poss. extension of Voisey's Bay magmatic event (*intrusive rocks similar geology/ age/ mineralization*)

Drilled intercepts up to **1.1 m 11.9% Ni, 9.6% Cu, & 0.43% Co** & **15.7 m 1.13% Ni, 0.78% Cu, 0.20% Co** (BRL claims)

Deep **untested 5 Hz MT anomaly** adjacent to multiple high-grade massive sulphide intercepts - *remains untested*

BRL staked in 2016 - surrounded by Fjordland-Commander JV - previously JV'd to Ivanhoe Electric (Robert Friedland-led company)

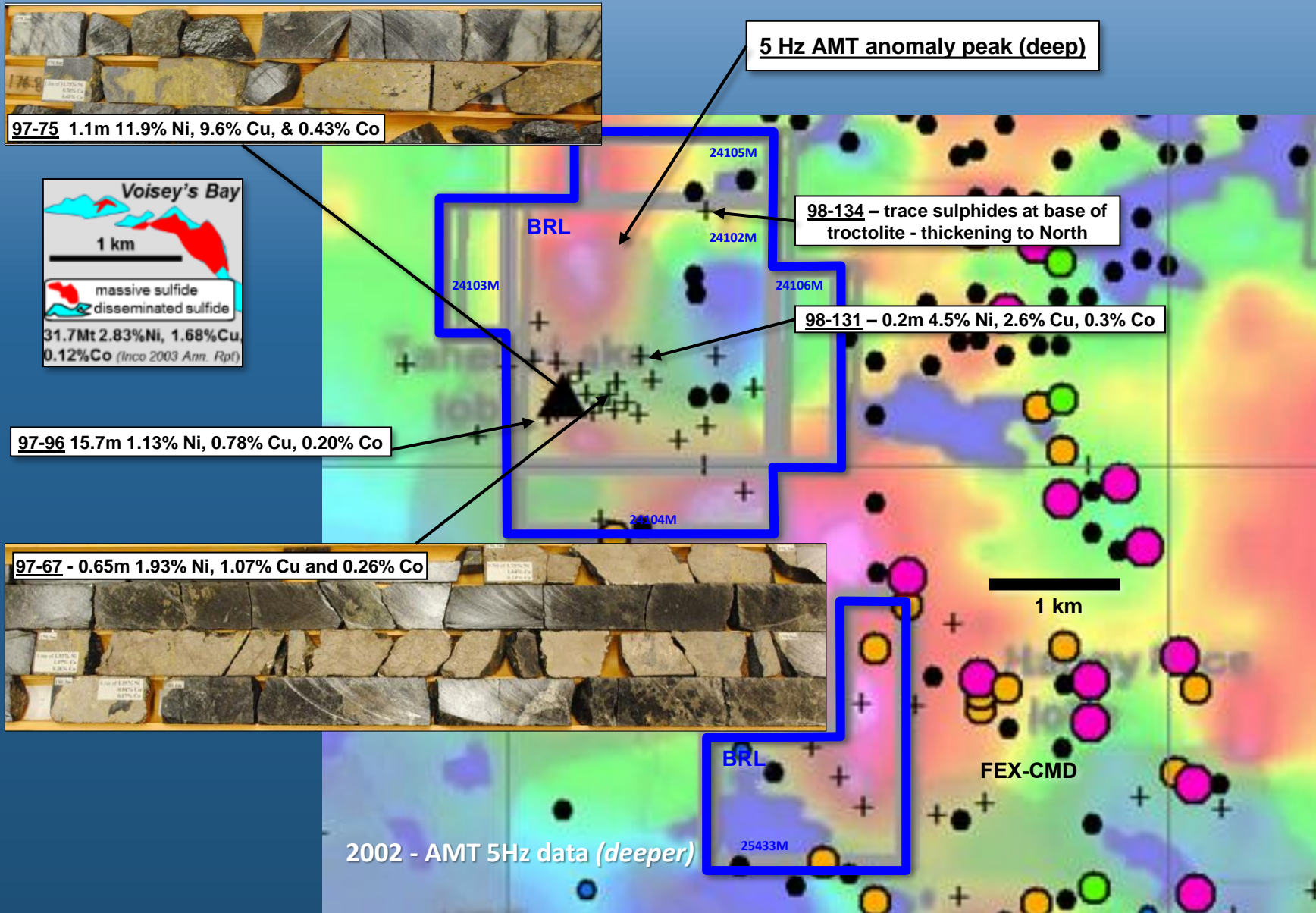
● **FEX-IVE JV drill holes**

*Ivanhoe abandoned JV April 17, 2023*

- BRL property covers favourable **“Black Troctolite” - highest Ni grades** (tenors) within Pants Lake Intrusive Suite

# Voisey's Bay – Labrador (Ni-Cu-Co)

## South Voisey's Bay Property



Previous intercepts located close to deep **untested AMT anomaly** detected below depth capability of previous geophysical surveys (>>200 m)

- BRL's Ni projects - *excellent exploration opportunities - discovery world-class Voisey's Bay deposits*
- previous exploration - short-lived exploration rush - *identified several overlooked opportunities*
- BRL Ni projects - Voisey's Bay & South Voisey's Bay - *priority target areas with confirmed Voisey's Bay-style mineralization*
- BRL - experienced team (former Teck/ Inco-VBNC) - *able to operate existing projects*
- LUK - *strategic location with deep exploration potential*
- South Voisey's Bay - *"drill ready" target (untested AMT anomaly)*
  - incl. drilled intercept of 1.1 m @ 11.9% Ni, 9.6% Cu, & 0.43% Co



**THANK YOU**

Presentation available at [www.buchansresources.com/investors/](http://www.buchansresources.com/investors/)

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(Vale)

***Exploring opportunities with demonstrated potential for exceptional mines***

**Labrador Gold & Nickel/Copper/Cobalt Projects**

Newfoundland & Labrador, Canada

**BuchansResources**

*May 2024*

# VBE-2 Prospect 1997 Drilling

VBE-2 discovery o/c  
8.51 g/t Au & 0.93 g/t Ag over 4.8 m  
incl. 31.91 g/t Au over 0.85 m

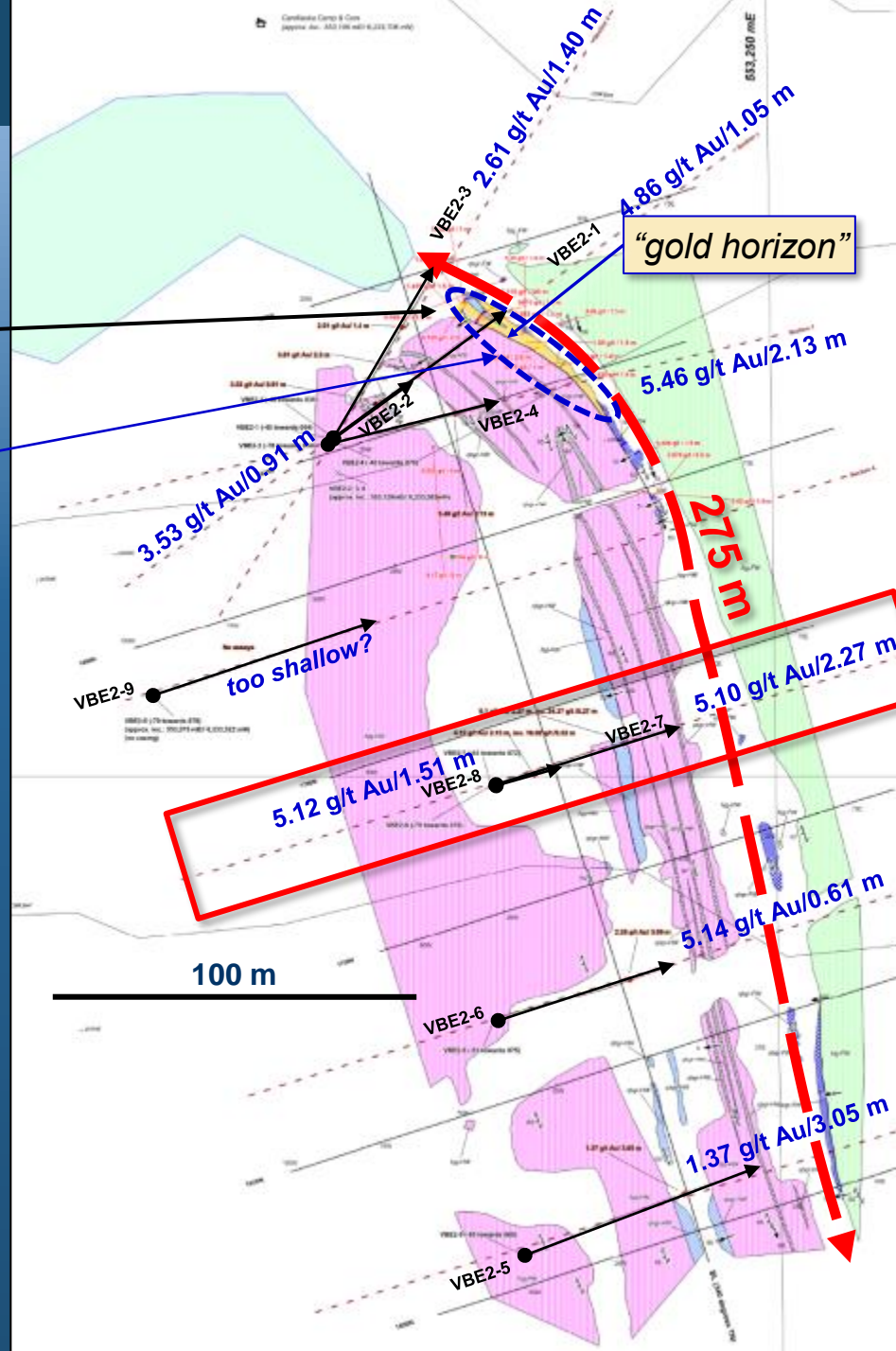
90 m outcrop exposure

drilled ~275 m strike  
<65 m depth

...open in all directions...  
"discovery holes" already drilled...

## LEGEND

- Hanging wall plagioclase-quartz-garnet paragneiss
  - Quartz-pyroxene-garnet gneiss
  - Quartz-biotite-graphite schist
  - Footwall gneiss plagioclase-quartz-garnet paragneiss
- (after Cavalero and Mersereau, 1997b)

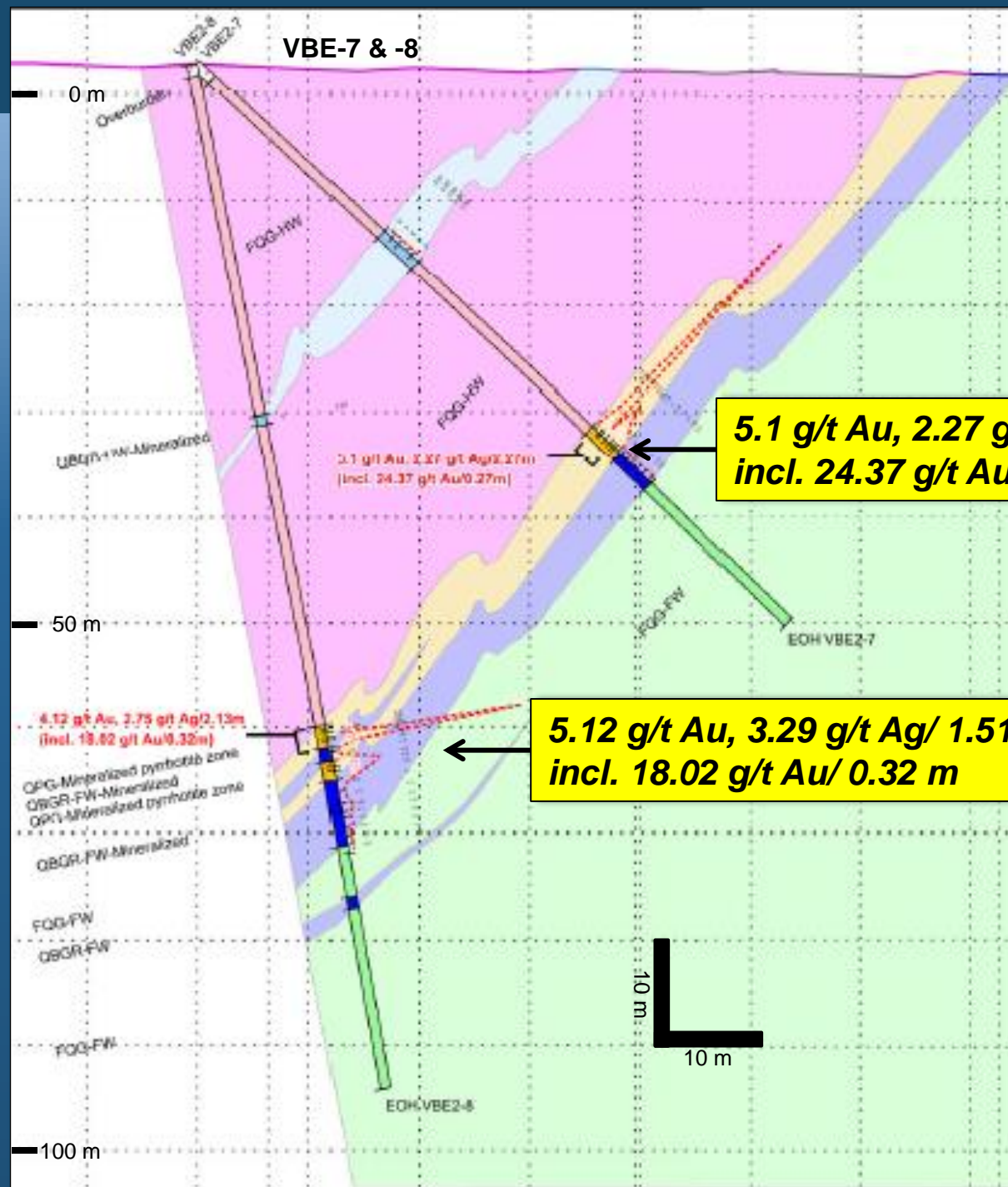


# BuchansResources

DDH	From (m)	To (m)	width (m)	Au (g/t)	Ag (g/t)
VBE2-1	47.85	51.74	3.89	2.46	2.93
	47.85	50.14	2.29	3.81	2.82
	47.85	48.91	1.05	4.86	1.71
	48.91	50.14	1.23	2.92	3.77
	50.14	51.21	1.07	0.34	3.43
VBE2-2	51.21	51.74	0.53	0.92	2.4
	56.24	57.15	0.91	3.53	2.74
	49.83	51.24	1.40	2.61	3.09
	47.52	49.65	2.13	5.46	3.52
	47.52	48.37	0.85	1.50	3.09
VBE2-3	48.37	49.07	0.70	10.62	4.11
	49.07	49.65	0.58	5.05	3.43
	64.31	67.36	3.05	1.37	2.37
	64.31	65.09	0.78	0.91	2.72
	65.09	66.20	1.11	0.67	2.06
VBE2-4	66.20	67.36	1.16	2.35	2.42
	56.57	60.56	3.99	2.26	2.76
	56.57	57.01	0.44	2.08	3.09
	57.01	57.62	0.61	5.14	4.11
	57.62	58.25	0.62	2.95	3.43
VBE2-5	58.25	58.77	0.52	0.55	1.71
	58.77	59.06	0.29	3.16	2.74
	59.06	59.88	0.82	1.43	2.06
	59.88	60.56	0.69	1.12	2.4
	50.75	54.09	3.34	3.78	2.30
VBE2-6	51.15	53.42	2.27	5.10	2.27
	50.75	51.15	0.40	0.27	1.61
	51.15	51.65	0.50	2.84	2.66
	51.65	51.92	0.27	24.37	4.43
	51.92	52.49	0.56	0.63	1.44
VBE2-7	52.49	53.04	0.55	4.20	0.91
	53.04	53.42	0.38	2.15	3.37
	53.42	53.75	0.34	1.74	2.8
	53.75	54.09	0.34	1.00	2.86
	64.04	69.27	5.23	2.73	2.42
VBE2-8	64.04	65.55	1.51	5.12	3.29
	64.04	66.17	2.13	4.12	2.75
	67.48	69.27	1.78	2.86	2.26
	64.04	64.45	0.41	1.76	3.35
	64.45	64.83	0.38	2.41	4.43
VBE2-9	64.83	65.23	0.40	0.81	1.56
	65.23	65.55	0.32	18.02	4.02
	65.55	66.17	0.62	1.70	2.42
	66.17	66.57	0.40	0.11	1.46
	66.57	67.48	0.91	0.39	1.69
VBE2-8	67.48	68.02	0.53	3.86	2.58
	68.02	68.40	0.38	3.34	2.28
	68.40	69.27	0.87	2.04	2.05
	VBE2-9	- no significant assays, gold-bearing horizon not intersected			



# VBE-2 Prospect 1997 Drilling



**5.1 g/t Au, 2.27 g/t Ag/ 2.27 m  
incl. 24.37 g/t Au/ 0.27 m**

**5.12 g/t Au, 3.29 g/t Ag/ 1.51 m  
incl. 18.02 g/t Au/ 0.32 m**

**LEGEND**

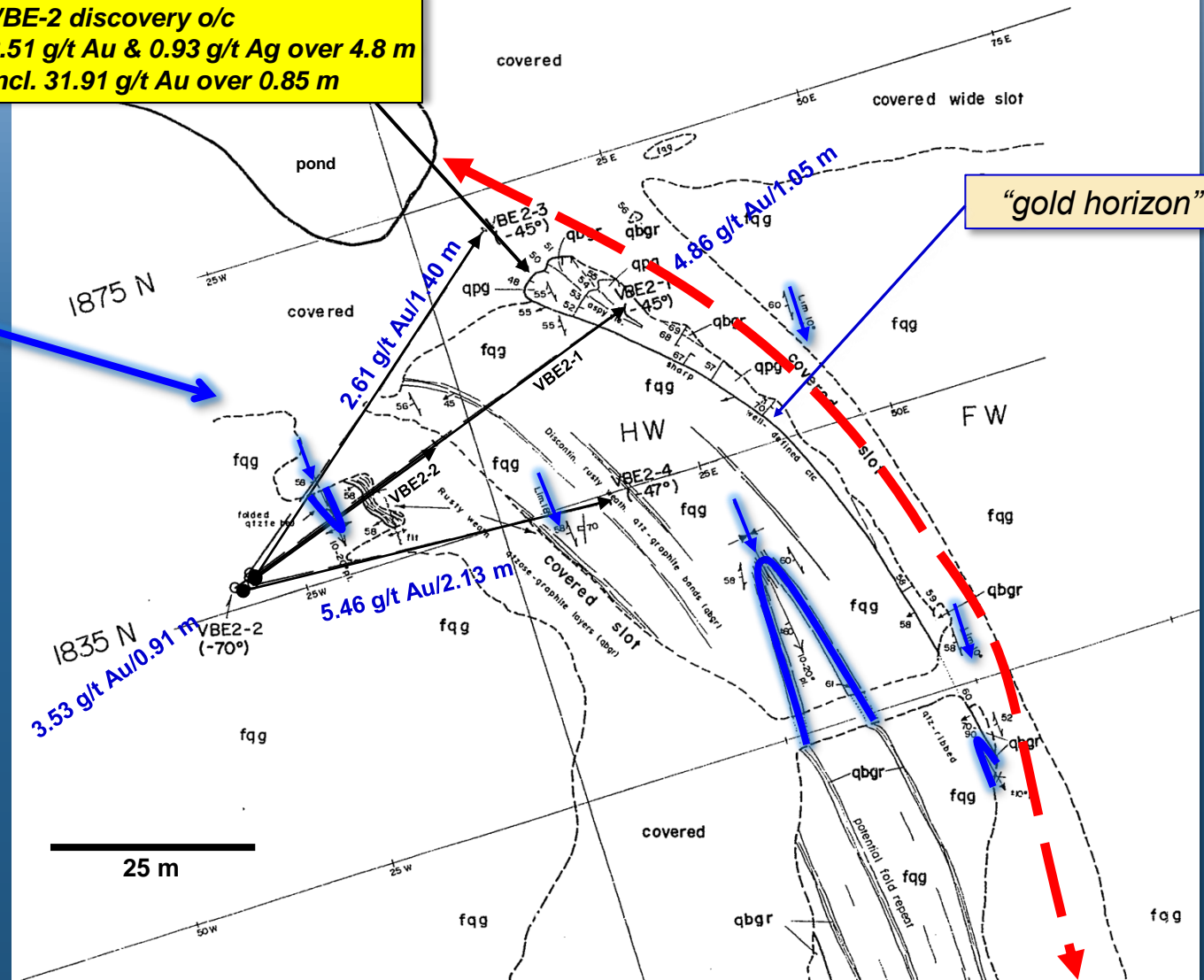
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- Quartz-pyroxene-garnet gneiss
- Quartz-biotite-graphite schist
- Footwall gneiss plagioclase-quartz-garnet paragneiss

*(after Cavalero and Mersereau, 1997b)*

**VBE-2 discovery o/c**  
8.51 g/t Au & 0.93 g/t Ag over 4.8 m  
incl. 31.91 g/t Au over 0.85 m

**Multiple fold hinges and mineral lineations suggest shallow plunge (10-20° SE)**

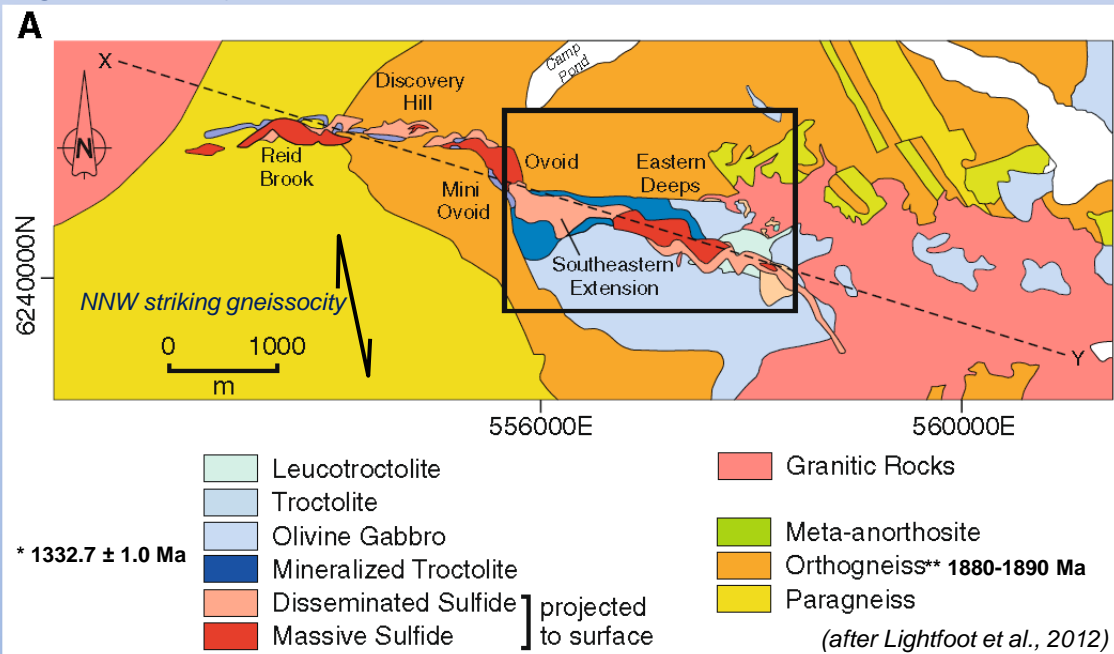
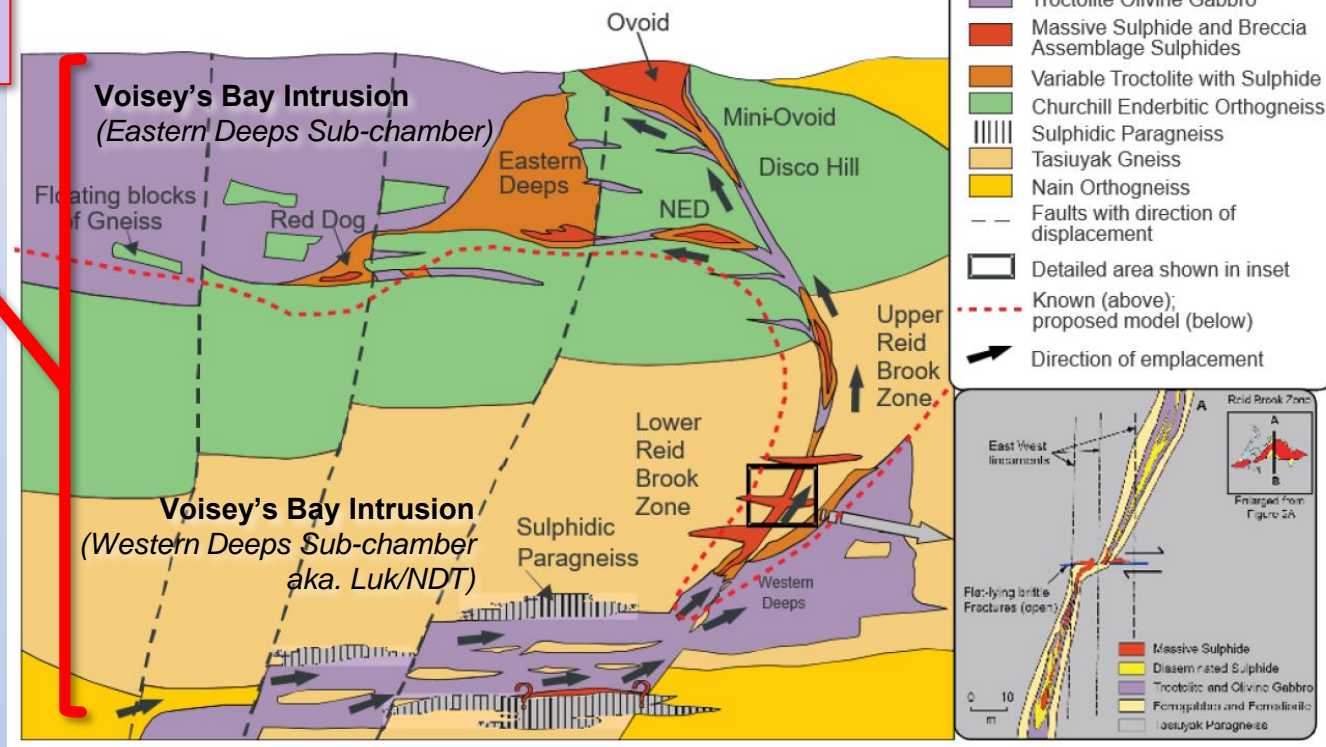
*...fold ledges...*



Multiple "levels" mineralized - sulphides accumulate in feeder environment

- Recent models identify the "feeder" as the dominant mineralized environment – generally 10 to several 100 metres wide
- Instead of exploring for sub-horizontal conductive bodies at the base of large intrusions – better to explore for sub-vertical dyke-like bodies ...small footprint...
- Voisey's Bay – dyke ~perpendicular (E-W) to NNW striking gneissosity

(after Lightfoot et al., 2012)



\* Voisey's Bay Intrusion age - Amelin et al., 1999

\*\* Enderbitic/ortho gneiss (Churchill) age - Rawlings-Hinchey et al., 2003



Target - Voisey's Bay Feeder Dyke  
~30 m wide - <100 m from ore

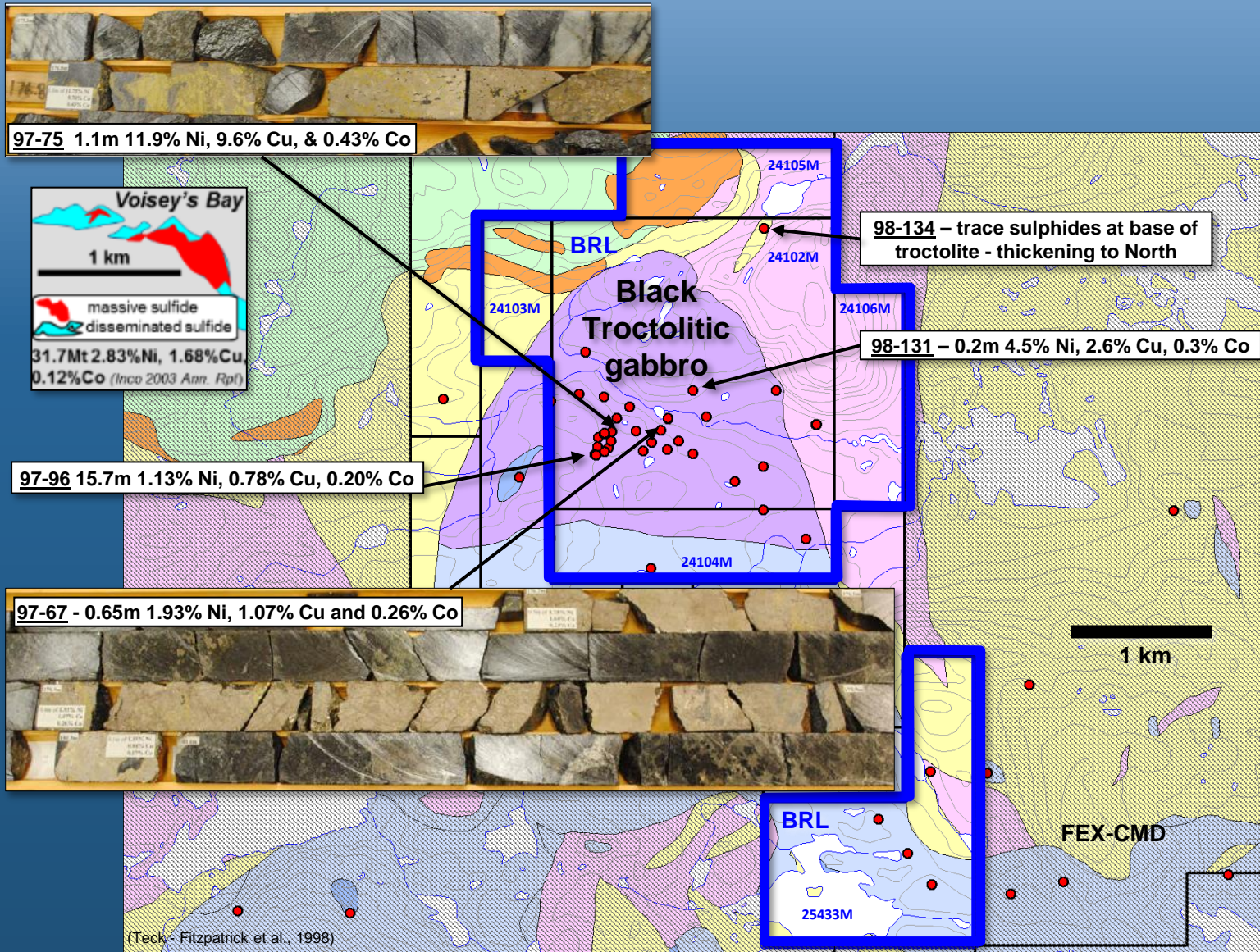
~20 m

- **Optimal Target** – troctolite feeder dykes - adjacent/ below troctolitic intrusions - preferably mineralized intrusions & dykes
- ... favourable crustal level for sulphide saturation - contact with Tasiuyak gneiss (S source - digested by mafic magma - scavenge Ni-Cu-Co before segregation-accumulation magmatic sulphides)...*explore areas of Tasiuyak gneiss - not middle of NPS intrusions...*
- ...*expect conductive anomalies associated with feeders will have orientations - resolvable (i.e., not parallel) regional gneissosity*  
*...could evaluate large areas by airborne EM (e.g., Ztem) & recon. geological investigation/prospecting...*  
*...at SVB & LUK...re-apply up-to-date deeper-seeking geophysics & drill test for feeders below & adjacent to larger troctolitic bodies...*

# Voisey's Bay – Labrador (Ni-Cu-Co)

## South Voisey's Bay Property

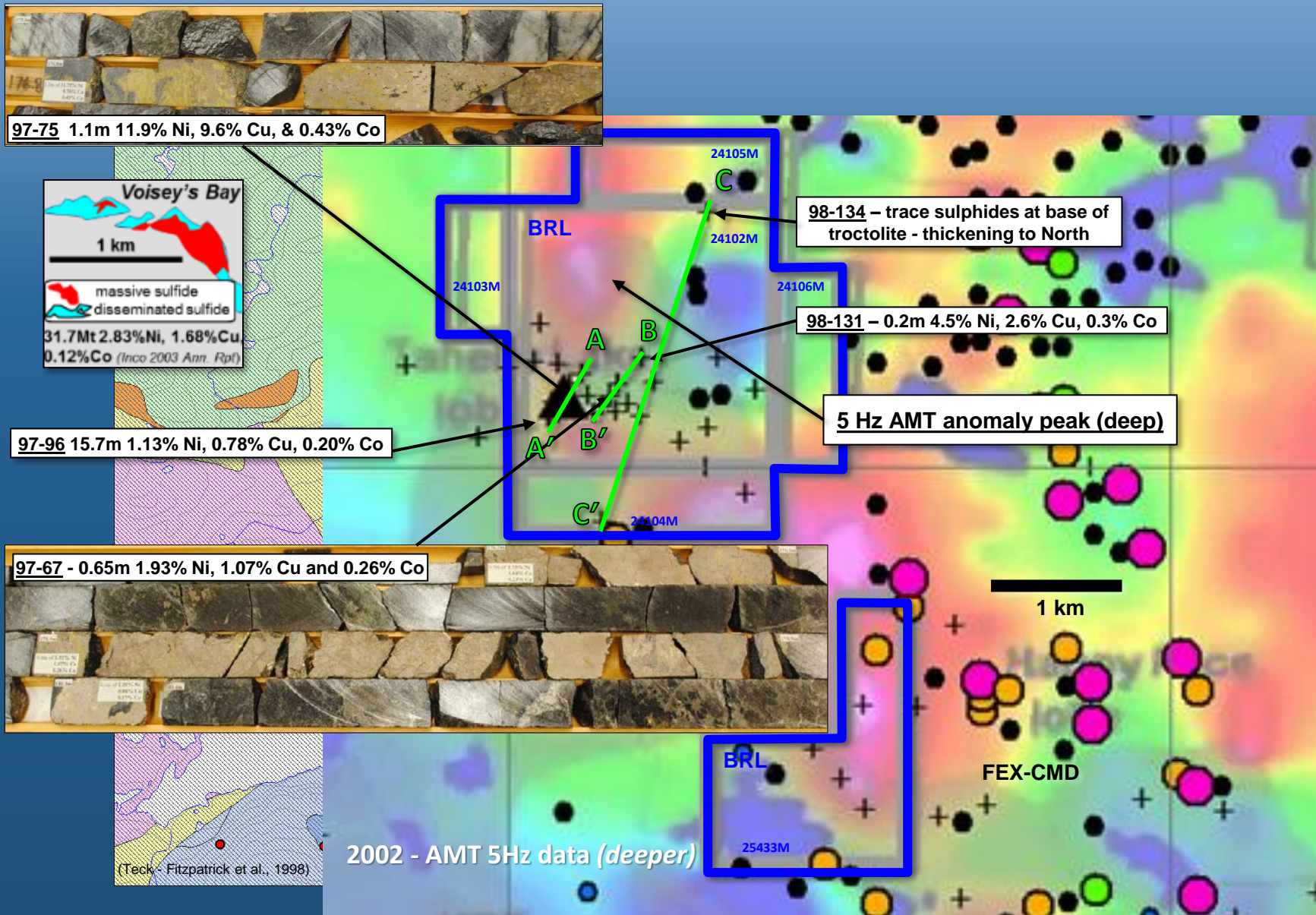
Multiple high-grade massive sulphide intercepts associated with shallow conductive anomalies (<200 m deep)



# Voisey's Bay – Labrador (Ni-Cu-Co)

## South Voisey's Bay Property

Previous intercepts located close to deep **untested AMT anomaly** detected below depth capability of previous geophysical surveys (>>200 m)

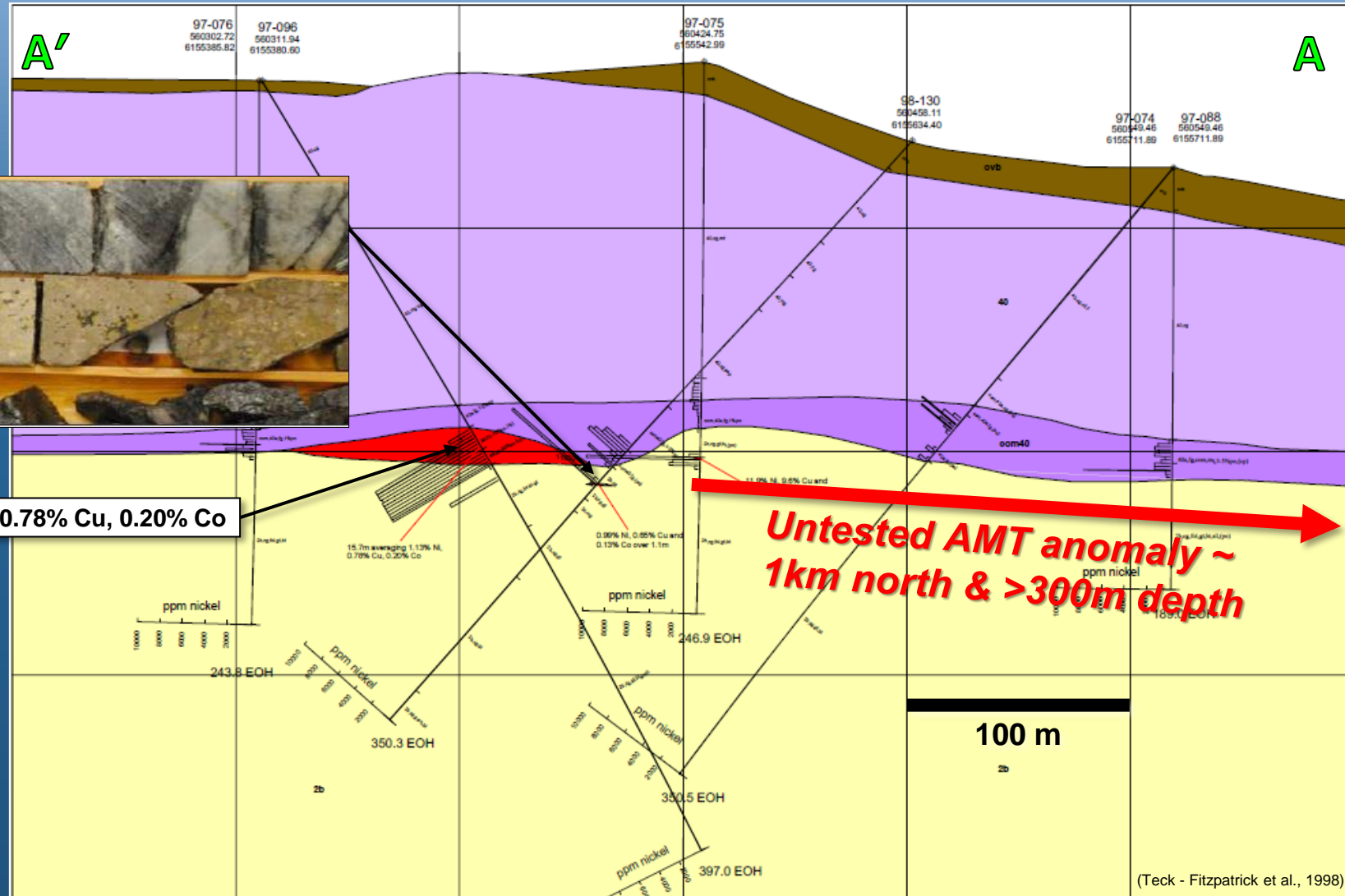


# Voisey's Bay – Labrador (Ni-Cu-Co)

## South Voisey's Bay Property



**97-96 15.7m 1.13% Ni, 0.78% Cu, 0.20% Co**



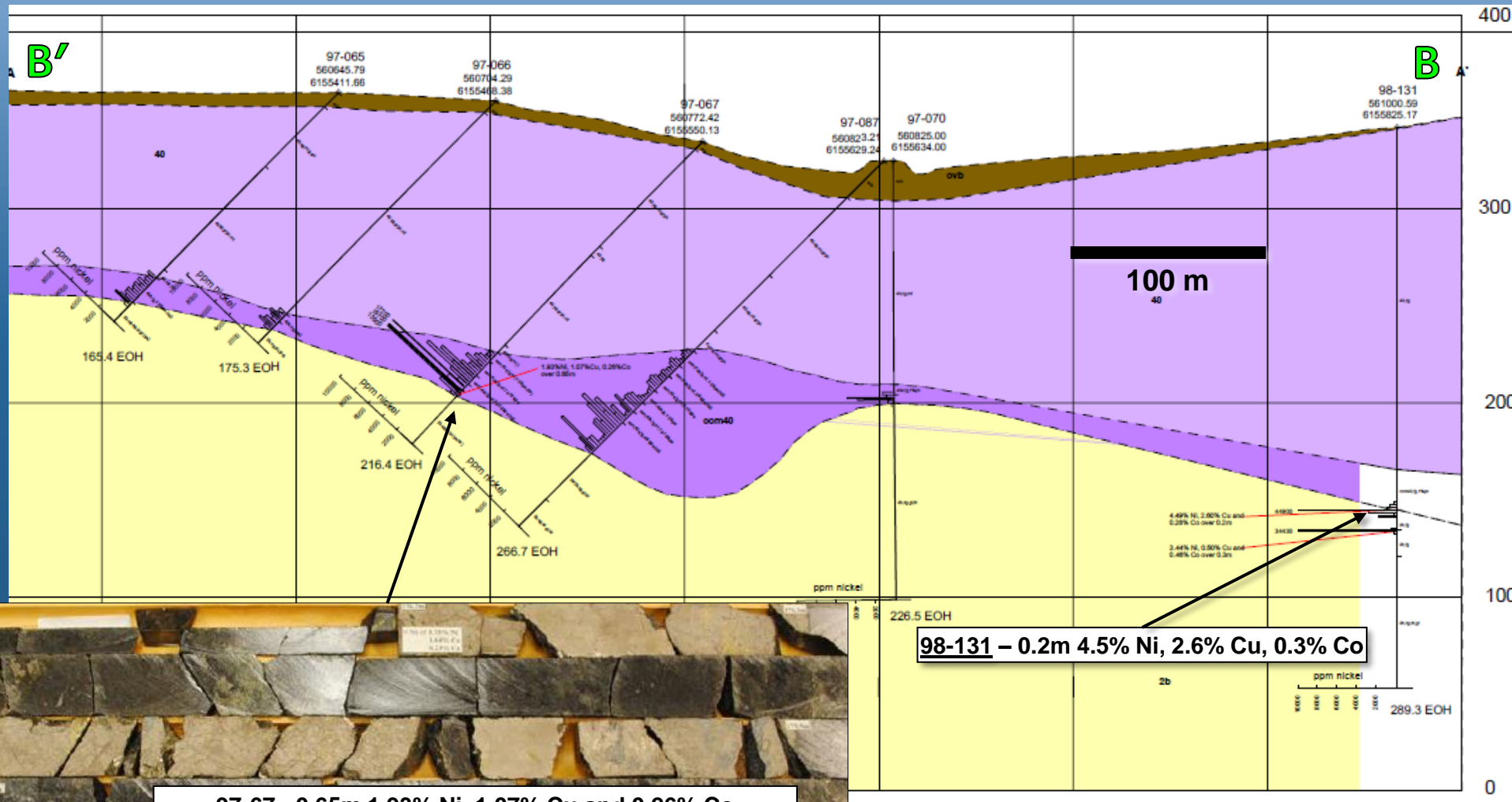
**Untested AMT anomaly ~ 1km north & >300m depth**

Area of previous intercepts located ~ 1 km south of deep **untested 5 Hz MT anomaly** adjacent to area hosting multiple high-grade massive sulphide intercepts

Section A-A' - Drill section looking Northwest (grid blocks are 100 m x 100 m)

# Voisey's Bay – Labrador (Ni-Cu-Co)

## South Voisey's Bay Property

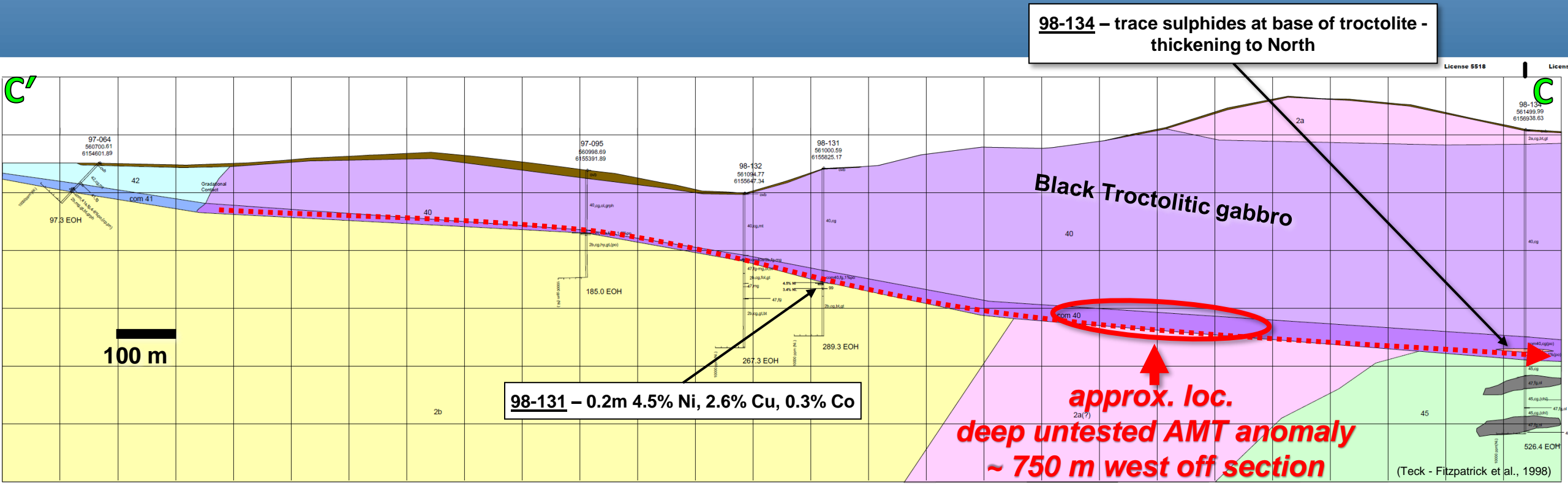


Section B-B' - Drill Section looking Northwest (grid blocks are 100 m x 100 m)



South

North



Sect C-C' - Drill section looking Northwest (grid blocks are 100 m x 100 m)