

# Exploration update

May 2019



# Competent person and forward looking statement

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The information in this presentation that relates to Exploration Results is based on information compiled by Mr John Bartlett (for Australia and USA), Mr Andy Thompson (for Scandinavia) and Mr Anthony Goddard (for USA) who are employees and shareholders of the Company and which fairly represents this information. Mr Bartlett and Mr Thompson are members of the Australasian Institute of Mining and Metallurgy, and Mr Goddard is a member of the Australian Institute of Geoscientists and a Registered Professional Geoscientist (RPGeo). Mr Bartlett, Mr Thompson and Mr Goddard have sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bartlett, Mr Thompson and Mr Goddard consent to the inclusion in this presentation of the matters based on information in the form and context in which it appears. Exploration results are based on standard industry practices, including sampling, assay methods, and appropriate quality assurance quality control (QAQC) measures. Reverse circulation (RC), aircore (AC) and rotary air blast (RAB) drilling samples are collected as composite samples of 4 or 2 metres and as 1 metre splits (stated in results). Mineralised intersections derived from composite samples are subsequently re-split to 1 metre samples to better define grade distribution. Core samples are taken as half NQ core or quarter HQ core and sampled to geological boundaries where appropriate. The quality of RC drilling samples is optimised by the use of riffle and/or cone splitters, dust collectors, logging of various criteria designed to record sample size, recovery and contamination, and use of field duplicates to measure sample representivity. For soil samples, PGM and gold assays are based on an aqua regia digest with Inductively Coupled Plasma (ICP) finish and base metal assays may be based on aqua regia or four acid digest with inductively coupled plasma optical emission spectrometry (ICPOES) or atomic absorption spectrometry (AAS) finish. In the case of reconnaissance RAB, AC, RC or rock chip samples, PGM and gold assays are based on lead or nickel sulphide collection fire assay digests with an ICP finish, base metal assays are based on a four acid digest and inductively coupled plasma optical emission spectrometry (ICPOES) and atomic absorption spectrometry (AAS) finish, and where appropriate, oxide metal elements such as Fe, Ti and Cr are based on a lithium borate fusion digest and X-ray fluorescence (XRF) finish. In the case of strongly mineralised samples, base metal assays are based on a special high precision four acid digest (a four acid digest using a larger volume of material) and an AAS finish using a dedicated calibration considered more accurate for higher concentrations. Sample preparation and analysis is undertaken at Minanalytical, Genalysis Intertek, and Bureau Veritas' laboratories in Perth and Kalgoorlie, Western Australia, ALS laboratories in Loughrea, Ireland, and Bureau Veritas' laboratory in Elko, Nevada. The quality of analytical results is monitored by the use of internal laboratory procedures and standards together with certified standards, duplicates and blanks and statistical analysis where appropriate to ensure that results are representative and within acceptable ranges of accuracy and precision. Where quoted, nickel-copper intersections are based on a minimum threshold grade of 0.25% Ni and/or Cu, and gold intersections are based on a minimum gold threshold grade of 0.1g/t Au unless otherwise stated. Intersections are length and density weighted where appropriate as per standard industry practice. In Australia, all sample and drill hole co-ordinates are based on the GDA/MGA grid and datum unless otherwise stated. In Finland, all sample and drill hole co-ordinates are based on the ETRS-TM35FIN grid and datum unless otherwise stated. In Sweden, all sample and drill hole co-ordinates are based on the new SWEREF99TM and older RT-90 grids and datums unless otherwise stated. Exploration results obtained by other companies and quoted by S2 have not necessarily been obtained using the same methods or subjected to the same QAQC protocols. These results may not have been independently verified because original samples and/or data may no longer be available.

The information in this presentation that relates to Mineral Resource estimation is based on information compiled by Mr Brian Wolfe, Principal Consultant Geologist – IRS Pty Ltd and Mr Andy Thompson, an employee and shareholder of the Company. Mr Wolfe and Mr Thompson are members of the Australasian Institute of Mining and Metallurgy and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Wolfe and Mr Thompson consent to the inclusion in this presentation of the matters based on their information in the form and context in which they appear.



## Corporate

- Well funded with A\$13.4 million cash & investments: the capacity to explore
- Favourable capital structure: tuned for success
- Strong share register: big, long term shareholders that get what we do
- Experienced board: track record of delivering exploration, development and financial success
- 19.99% strategic stake in Todd River Resources (ASX:TRT): exposure to NT exploration opportunities

## Finland

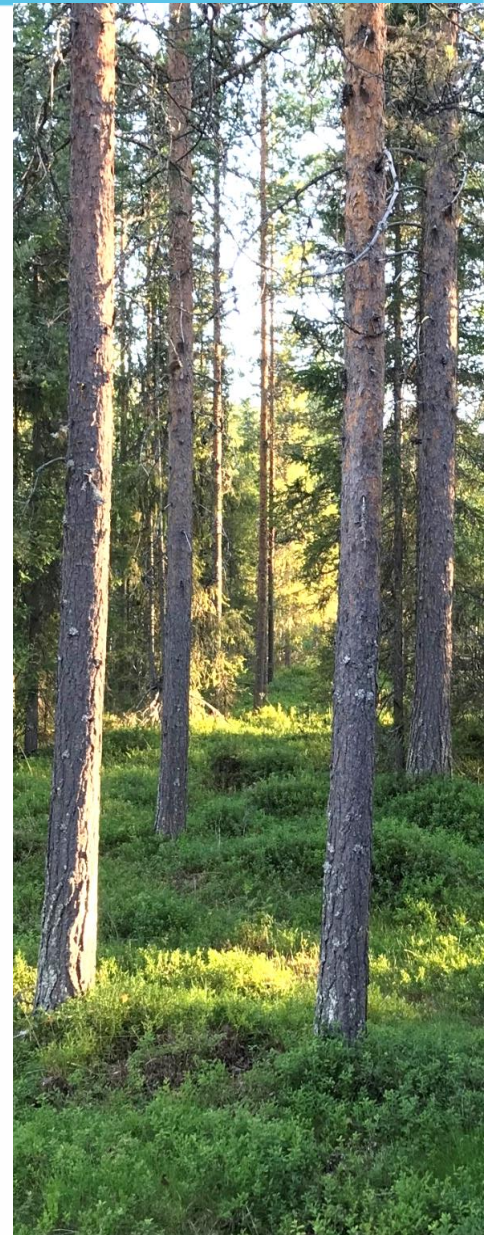
- Hard yards (early recon) completed: positive outcomes and increasing momentum
- New Aarnivalkea gold target drill ready: starting <7,000m diamond drill program in July
- New magmatic copper-nickel target in first EM at Ruopas: to be drilled later this year
- A range of other prospects in the pipeline: more gold and copper-nickel targets to come

## Australia

- Three Exploration Licence applications awarded: back in the Fraser Range nickel province
- Polar Bear nickel rights: drill-ready nickel sulphide prospect at Taipan North

## Nevada

- Earning 70% interest at Ecu, Nevada: a high risk, high reward play in elephant country



**Well funded & managed:**      **Cash + investments\***      **A\$13.4m**

**Debt**      **Nil**

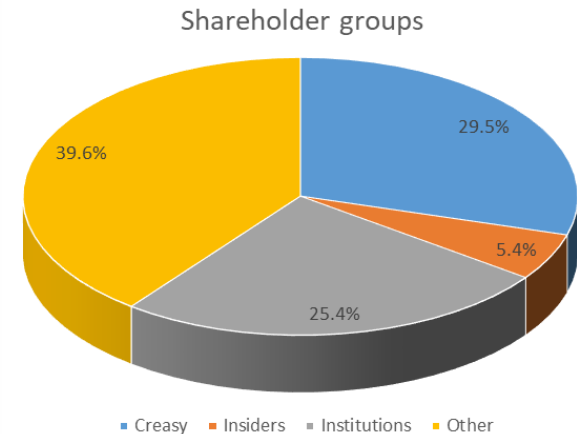
**Favourable capital structure:**      **Shares on issue**      **247.9m**

**Options on issue** (av. exercise price A\$0.35)      **53.4m**





**Market capitalisation** (@ A\$0.11/share)      **A\$27.3m**

**Enterprise value**      **A\$13.9m**

**Strong shareholder base:**      **Top twenty shareholders**      **60.9%**



## Experienced board with proven track record of finding, financing and developing mines:

	<b>Jeff Dowling</b> Non-executive Chairman	<ul style="list-style-type: none"> <li>• 40 year career in financial sector as an accountant and former managing partner with Ernst &amp; Young, WA</li> <li>• Extensive experience in corporate finance and transactions, and company management</li> <li>• Former director of Atlas Iron, NRW, current director of Fleetwood, Battery Minerals</li> </ul>
	<b>Mark Bennett</b> Managing Director & Chief Executive Officer	<ul style="list-style-type: none"> <li>• Founding managing director and CEO of Sirius Resources and S2 Resources, and PhD qualified geologist</li> <li>• Two-time winner of the “Prospector of the Year” award – for discovery of Thunderbox, Waterloo &amp; Nova-Bollinger</li> <li>• Experienced in equity capital markets, former director of IGO, and 2014 Mines &amp; Money “Legend in Mining”</li> </ul>
	<b>Anna Neuling</b> Executive Director & Company Secretary	<ul style="list-style-type: none"> <li>• Chartered accountant with BSc in Mathematics</li> <li>• Former executive director – corporate &amp; commercial, and company secretary of Sirius</li> <li>• Former auditor with Deloitte, London and Perth</li> </ul>
	<b>Grey Egerton-Warburton</b> Non-executive Director	<ul style="list-style-type: none"> <li>• Corporate financier and lawyer with extensive experience in equity capital markets, M&amp;A transactions</li> <li>• Former head of corporate finance at resources-focused stockbroker Hartleys Ltd, &amp; former corporate advisor to Sirius</li> <li>• Involved in &gt;\$2 billion of capital raisings plus numerous M&amp;A transactions</li> </ul>

\* Includes cash plus value of holding in Westgold (ASX:WGX) @ A\$1.26/share (currently A\$1.50) but excludes value of 19.99% stake in Todd River Resources (ASX:TRT)



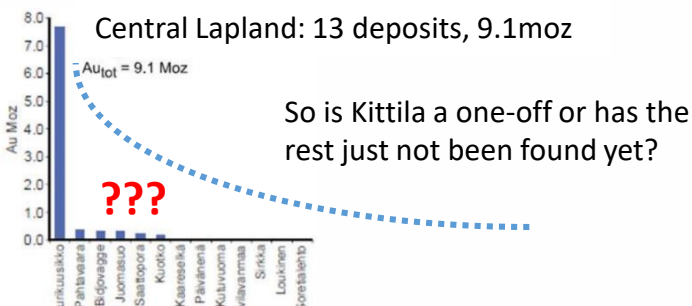
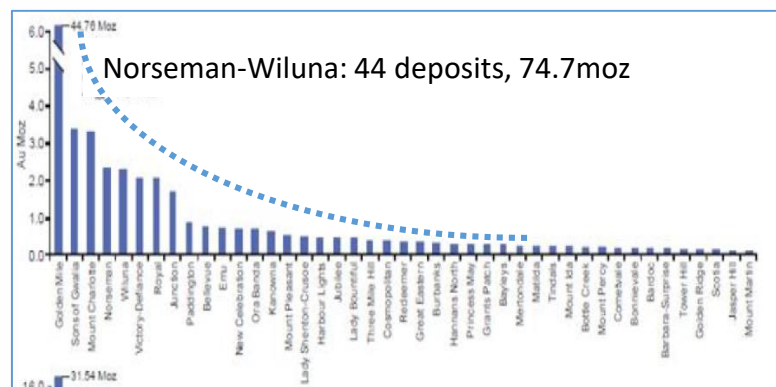
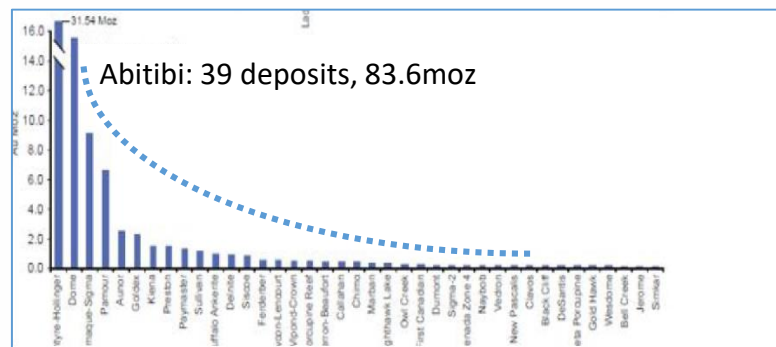


**The initial groundwork has been completed and the methodology is working  
This is now translating into drill testing of the first crop of gold and copper-nickel sulphide targets  
With a full pipeline of additional opportunities to follow**

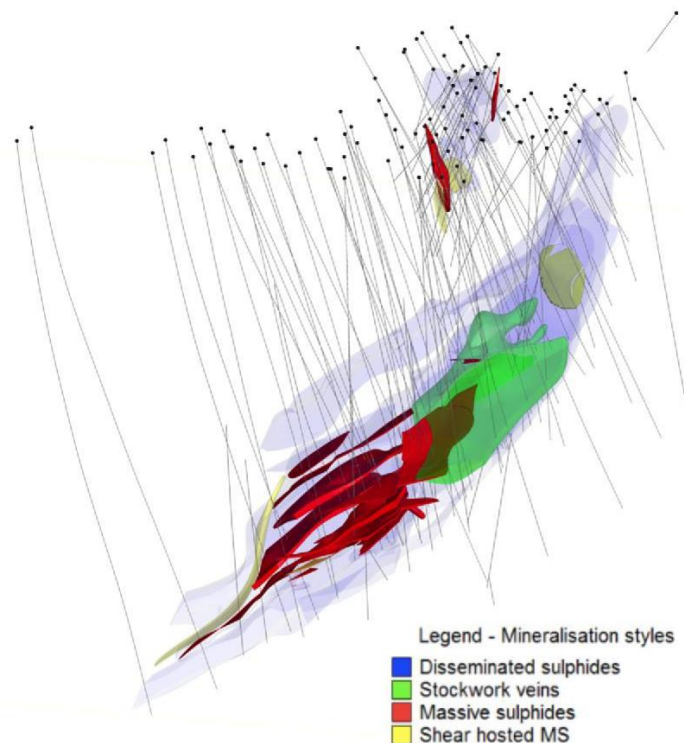


# Why the Central Lapland Greenstone Belt of northern Finland?

**Gold potential:** all well explored (mature) gold belts show a similar number and size distribution of gold deposits



**Magmatic copper-nickel-PGM potential:** Kevitsa mine (Boliden) and now the large Sakatti discovery (Anglo American):



SAKATTI CU-NI-PGE							
Class	Mt	Cu%	Ni%	Co%	Pt g/t	Pd g/t	Au g/t
Measured	-	-	-	-	-	-	-
Indicated	3.5	3.45	2.47	0.11	0.98	1.18	0.33
Inferred	40.9	1.77	0.83	0.04	0.61	0.43	0.33
Yht.	44.4	1.9	0.96	0.04	0.64	0.49	0.33

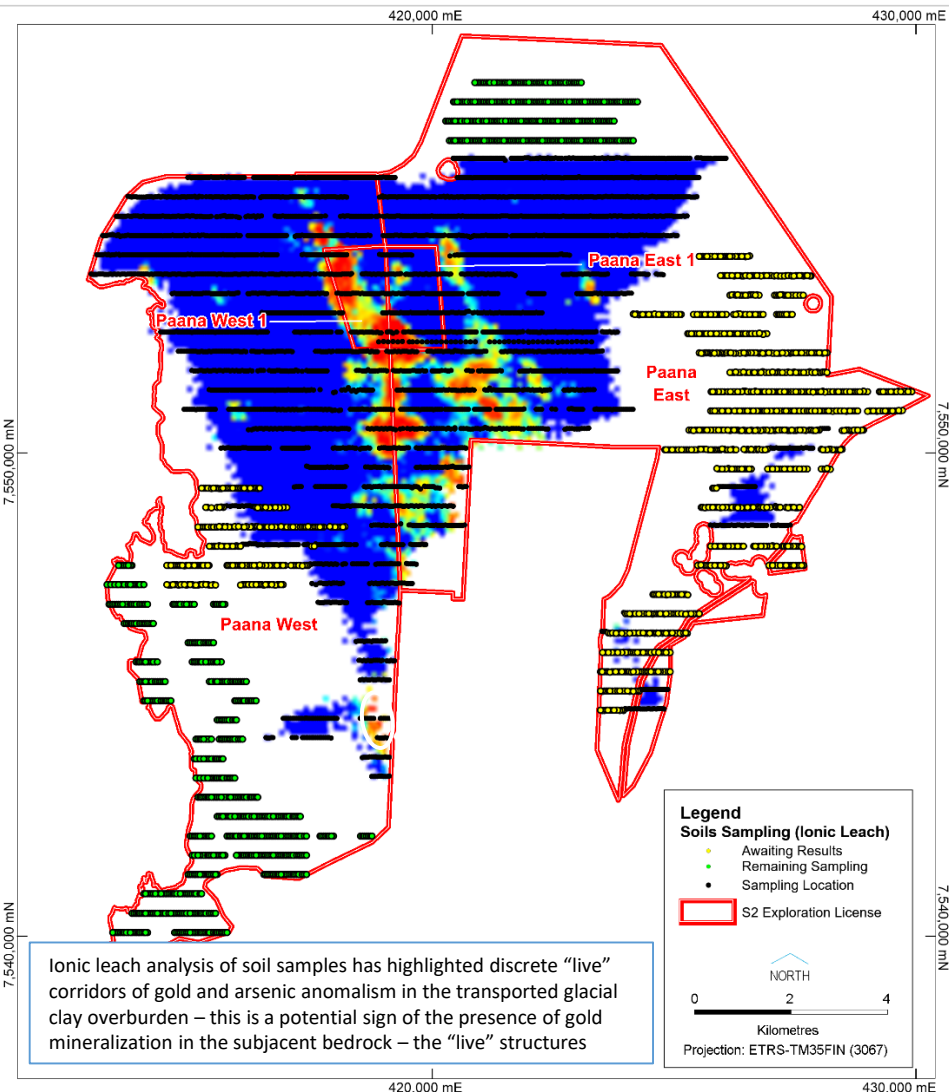
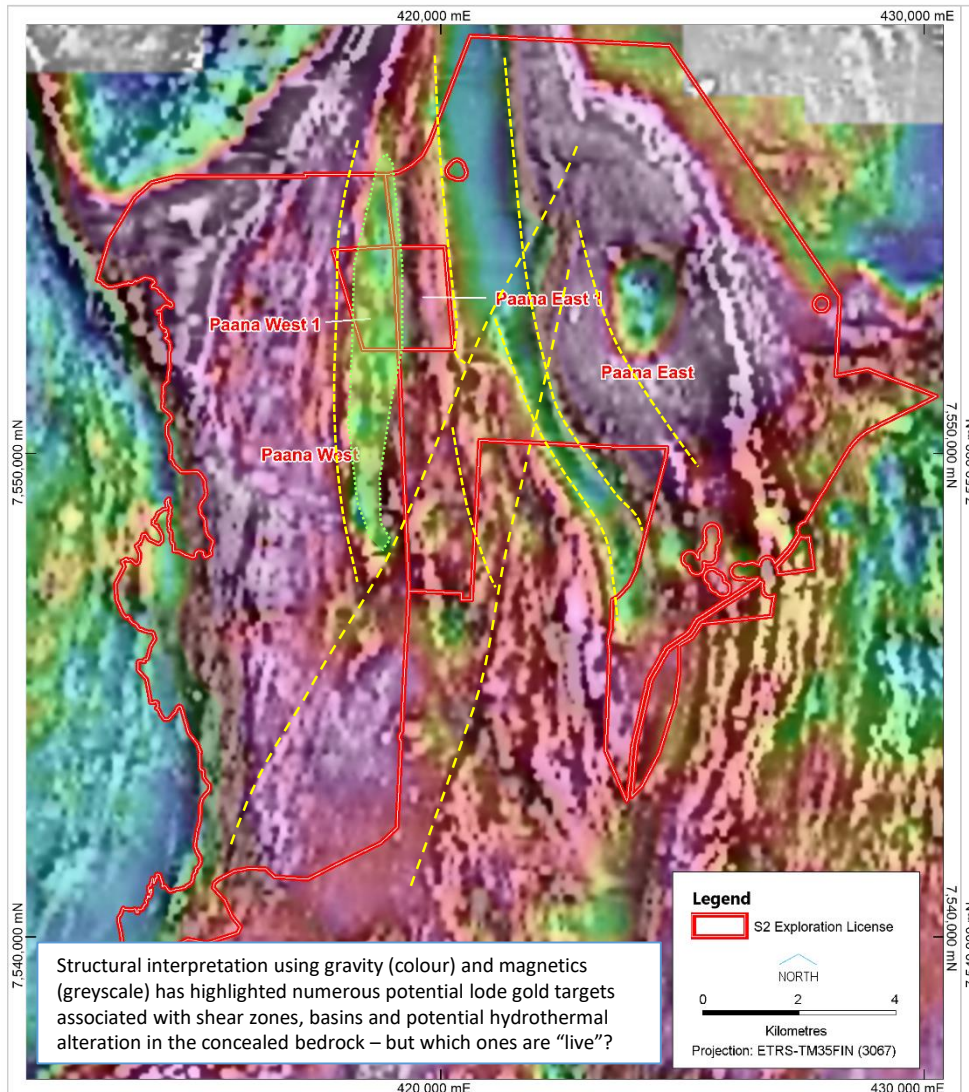
Image and table reproduced from Anglo American's presentation at the Fennoscandia Exploration and Mining conference, Levi, Finland, November 2017

# Aarnivalkea: textbook greenfields gold exploration

**Magnetic and gravity interpretation:** the aim is to define key structural and stratigraphic ingredients considered favourable for localising mesothermal lode gold mineralisation



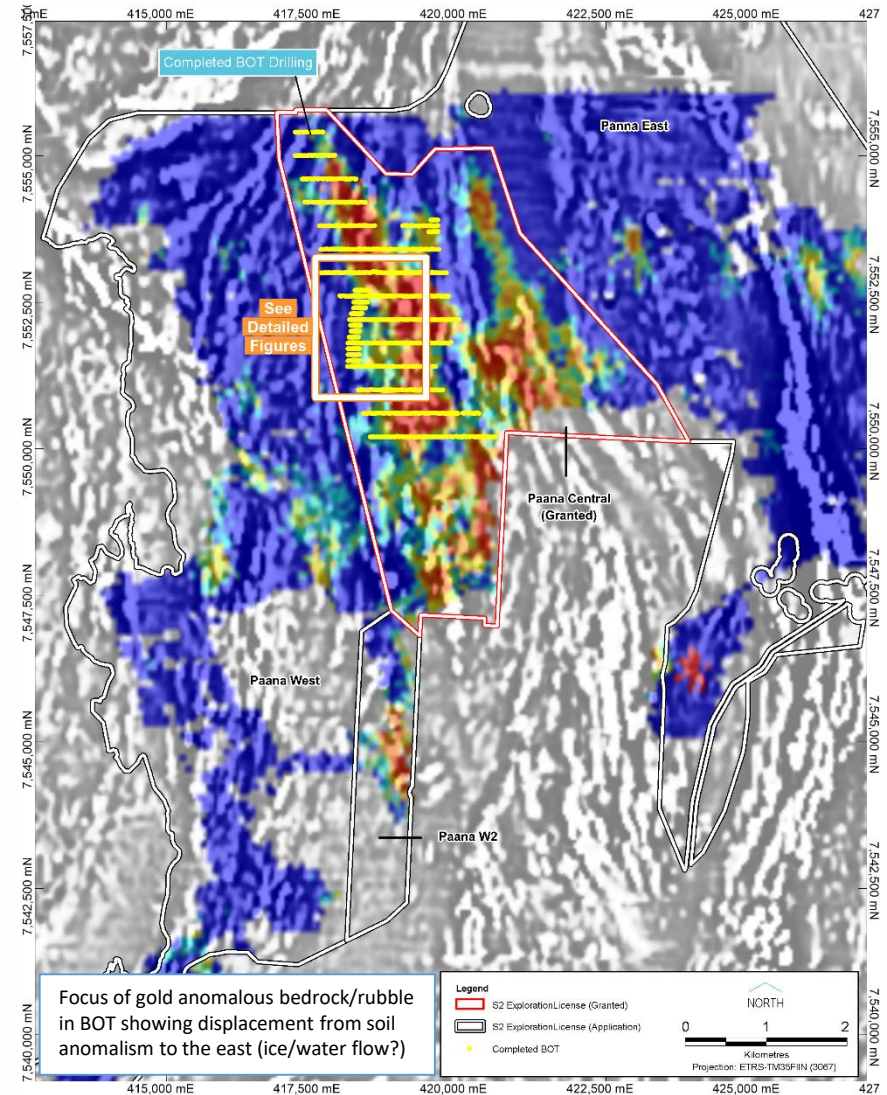
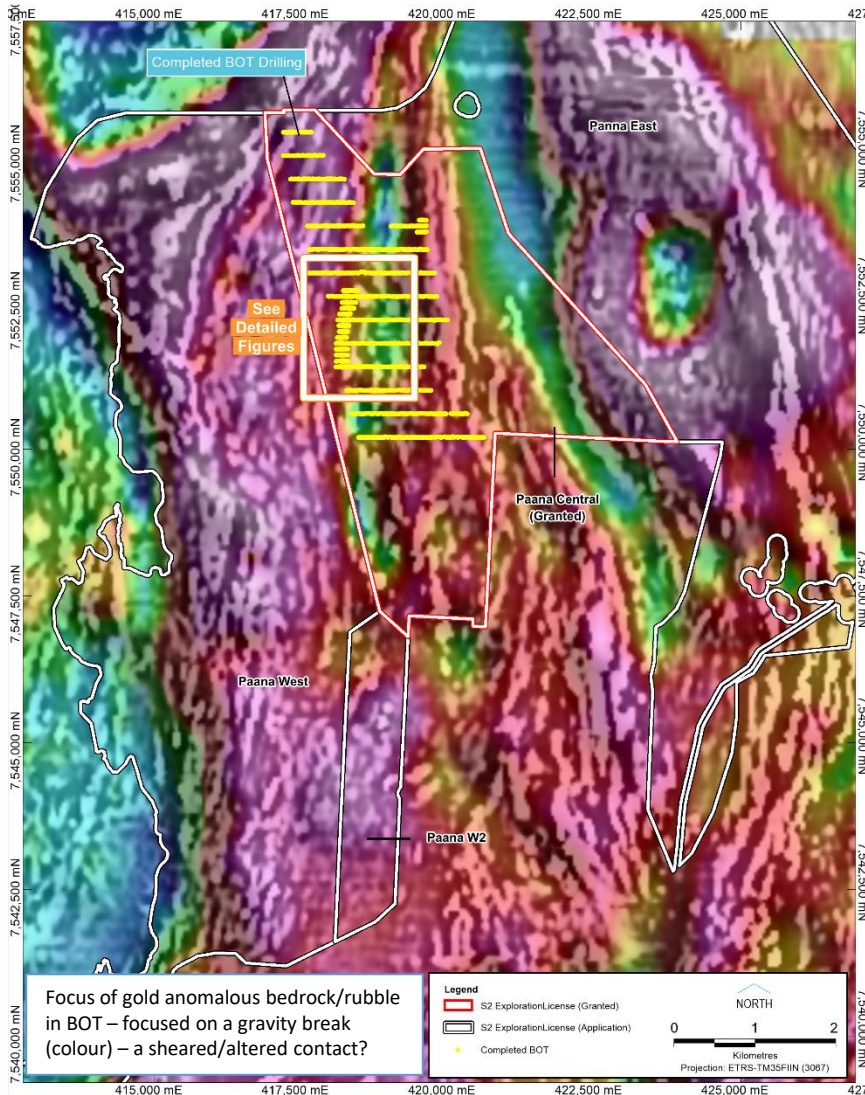
**Gold in ionic leach geochemical sampling:** the aim is to define “live” corridors to define areas for expedited granting of exploration licences in order to move to base of till (BOT) drilling





# Aarnivalkea: textbook greenfields gold exploration

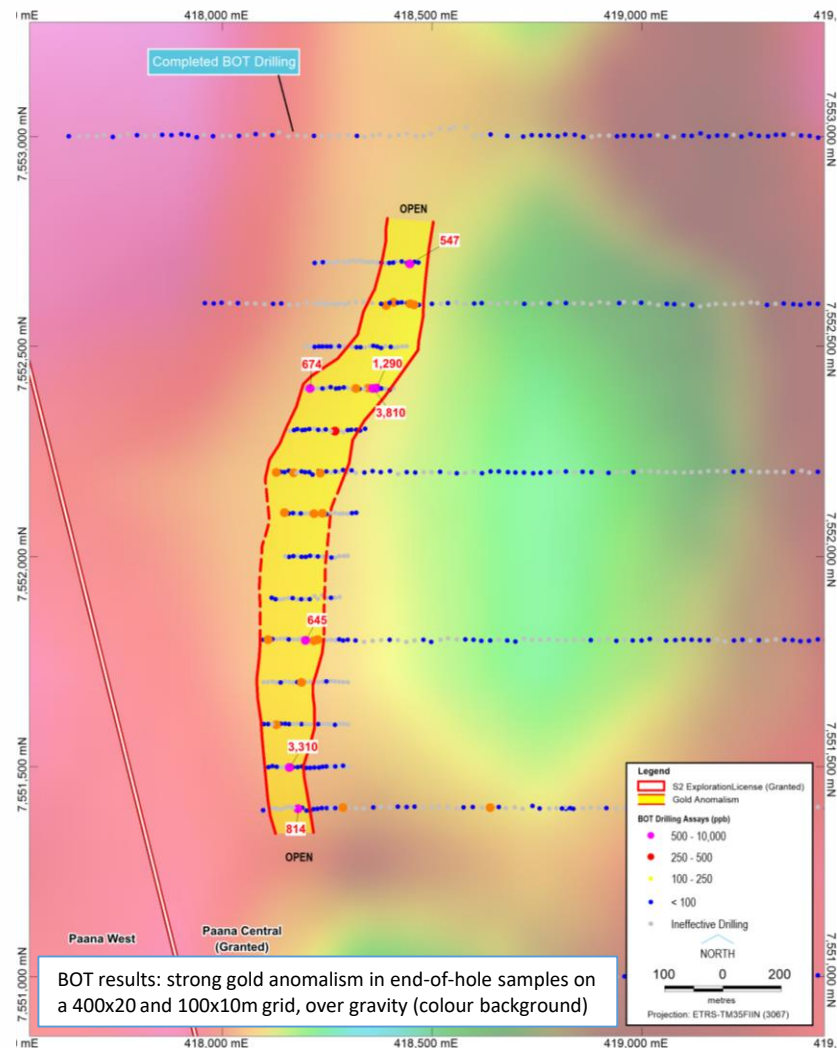
**Base of till (BOT) drilling:** the aim is to find the source of the gold in the ionic leach soil anomalies in the glacial cover. BOT holes are drilled through the transported cover (< 5 metres of clay and rubble) to sample the bedrock or rubble eroding from it. The lack of weathering and dispersion necessitates tight grid spacings (initial 400 x 20 metre and infill 100 x 10 metre spacing) for typical lode gold deposits



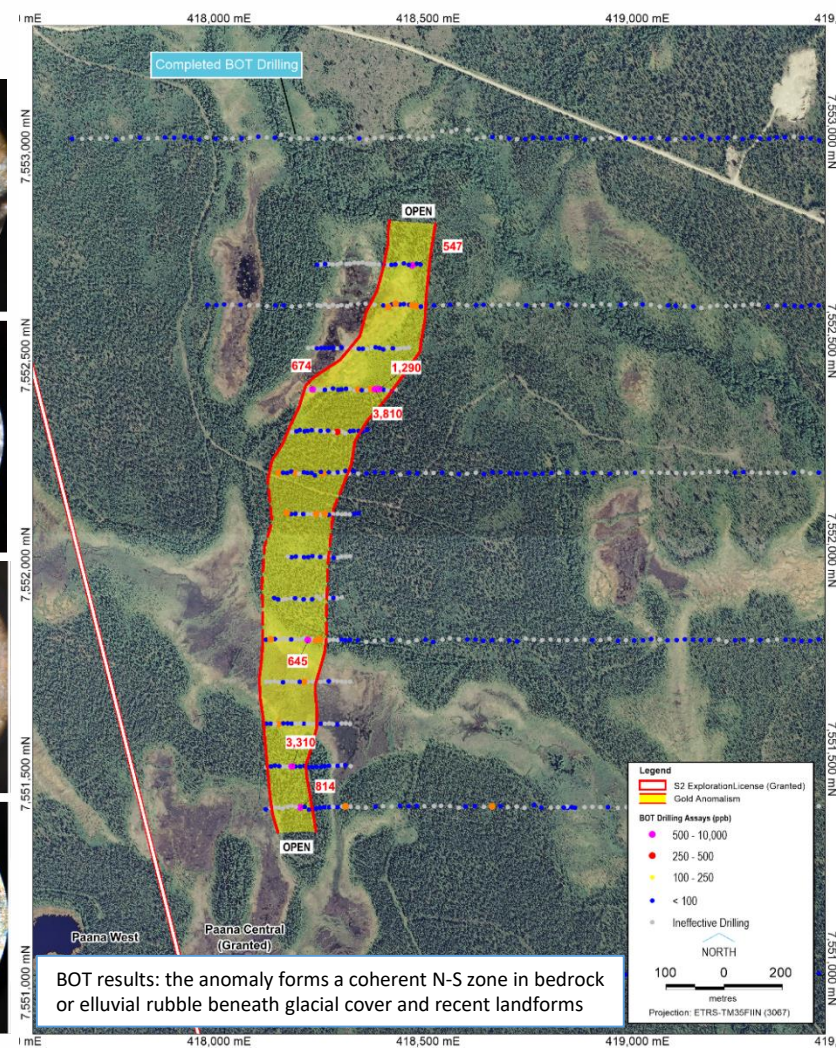
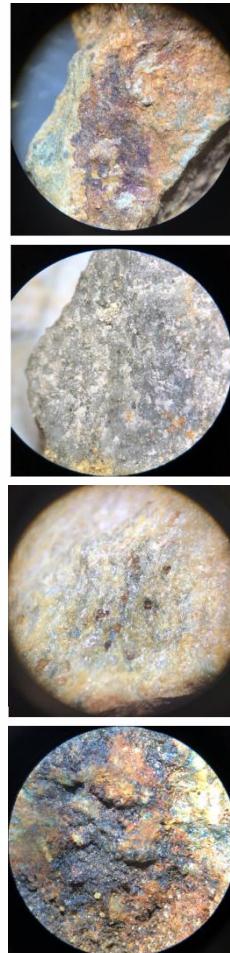


# Aarnivalkea: textbook greenfields gold exploration

**BOT drilling:** has defined a 1.3km long zone of gold anomalous/mineralised rock hidden beneath transported glacial cover in a previously unknown area. The end-of-hole samples are strongly sheared and silica-sericite-albite-pyrite-arsenopyrite altered with up to 3.8g/t gold and are interpreted as in-situ bedrock or close-to-source elluvial rubble along a shear zone. A 7,000m diamond drilling program starts in July, with initial wide-spaced fences to find the line, then closer drilling to define any sweet spots, and finally deeper drilling to chase these down dip



Mineralised end-of-hole rock chips





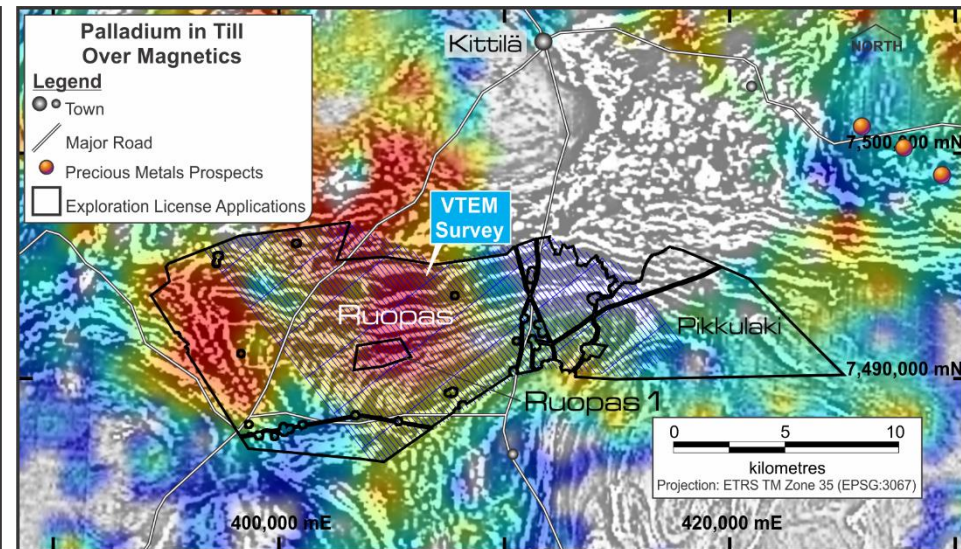
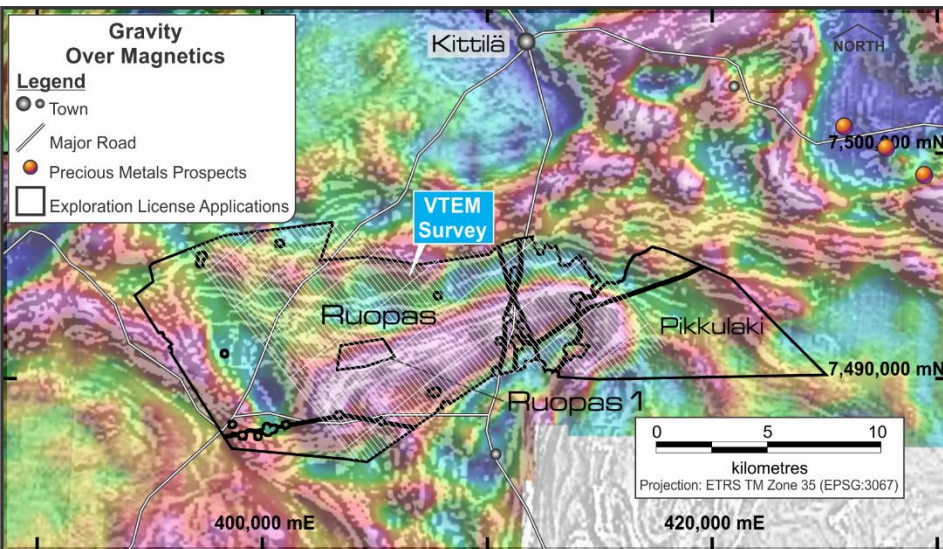
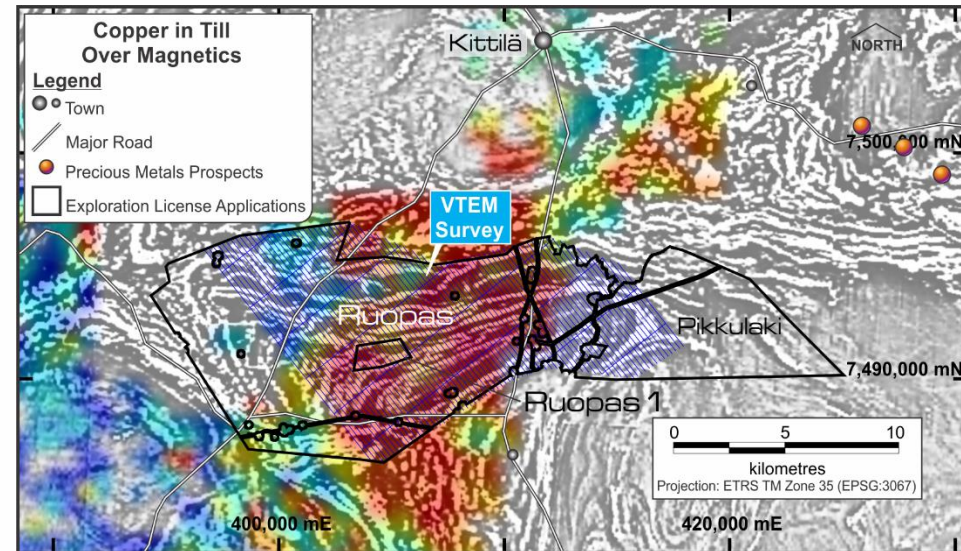
# Ruopas: searching for the next magmatic Cu-Ni-PGM deposit

The Central Lapland Greenstone Belt is highly prospective for magmatic copper-nickel-PGM mineralization, as evidenced by Boliden's Kevitsa mine and Anglo American's giant Sakatti deposit, located 85km to the east in the same belt

S2's Ruopas licence application area covers a 25km long sector of a major Archaean-Proterozoic crustal boundary (like the Fraser Range in Western Australia)

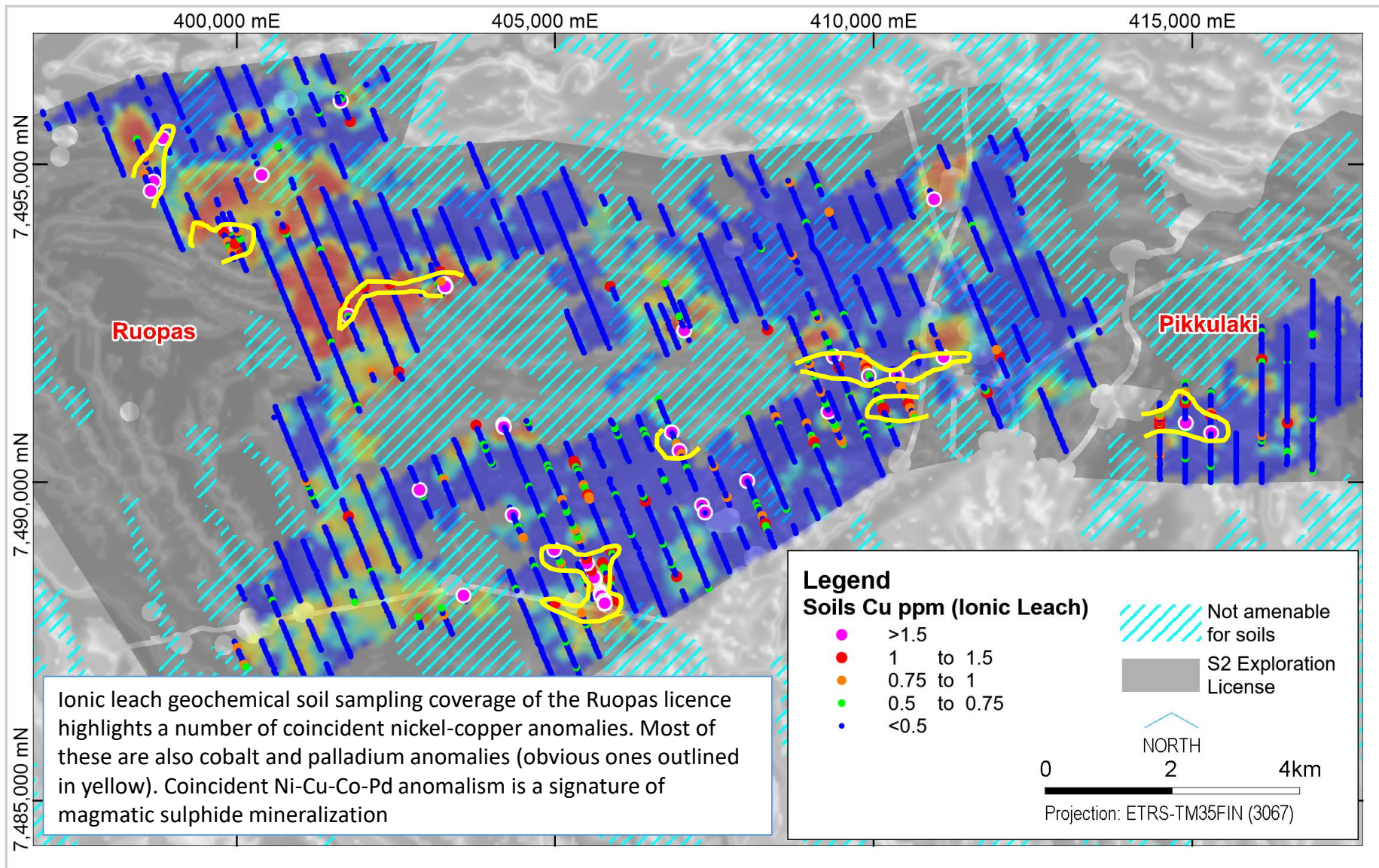
It contains a gravity ridge (= dense rocks such as ultramafics and mafics – as in the Fraser Range) and coincident copper and palladium anomalism identified in the GTK's (Geological Survey of Finland's) glacial till sampling database\*

This is a district scale magmatic sulphide exploration target in a district with significant proven endowment and limited effective exploration due to the extensive glacial cover

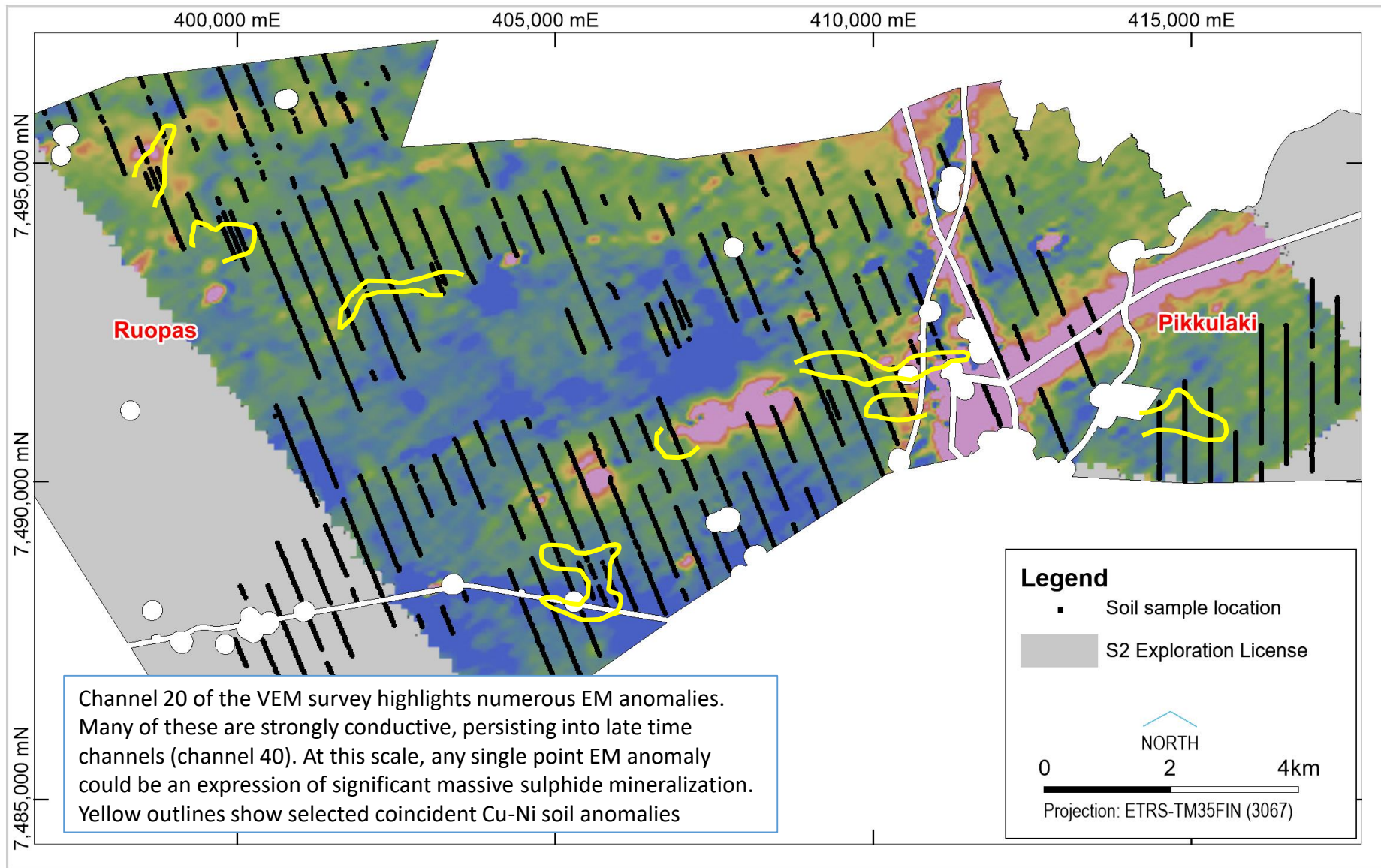




# Ruopas: searching for the next magmatic Cu-Ni-PGM deposit

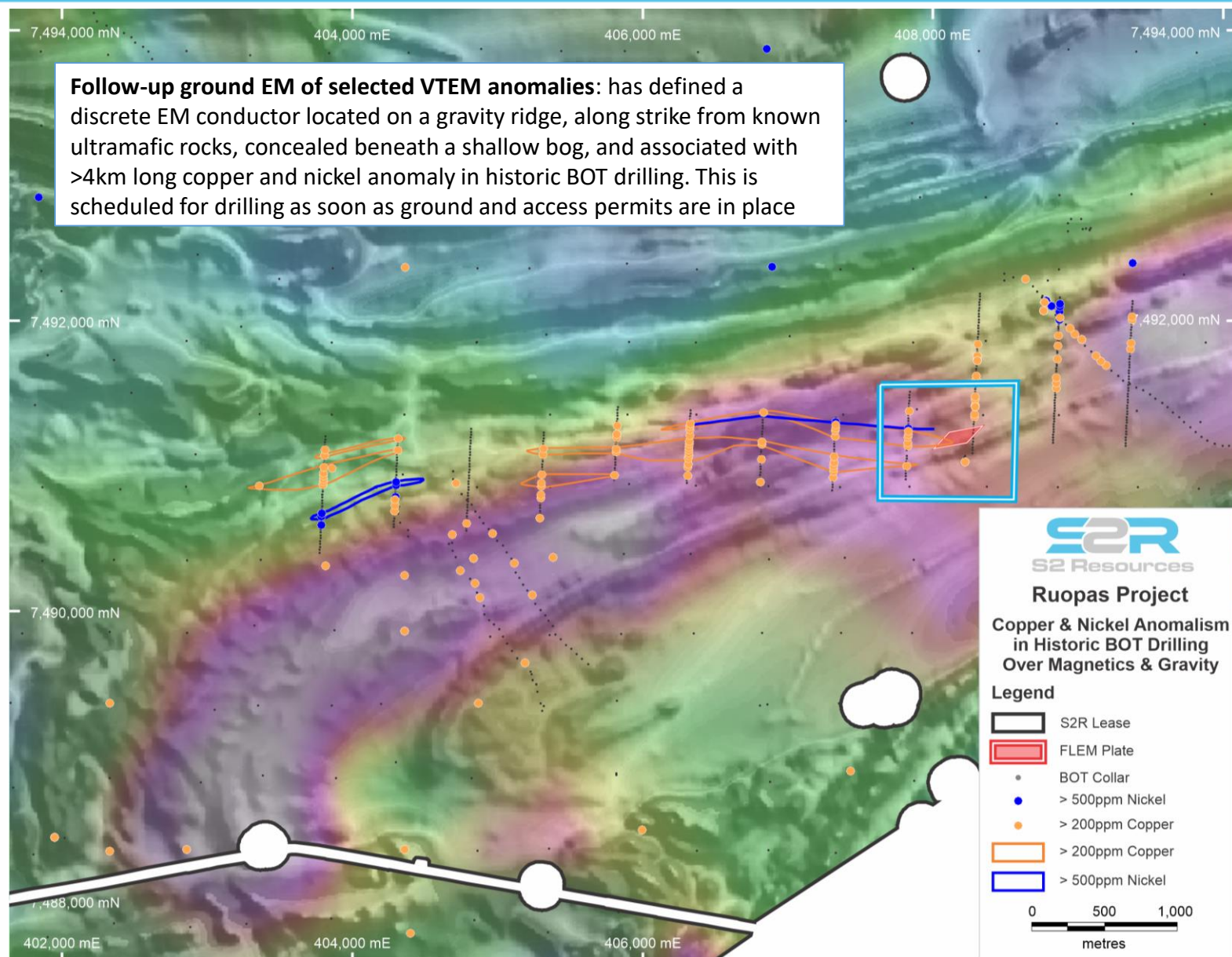


# Ruopas: searching for the next magmatic Cu-Ni-PGM deposit





# Ruopas: searching for the next magmatic Cu-Ni-PGM deposit





# The greenfields pipeline: overview

S2 holds a significant ground position in the Central Lapland Greenstone Belt

First pass ionic leach soil geochemistry has been completed over ~60% of S2's ground

Follow up ionic leach has been completed over ~10% of this

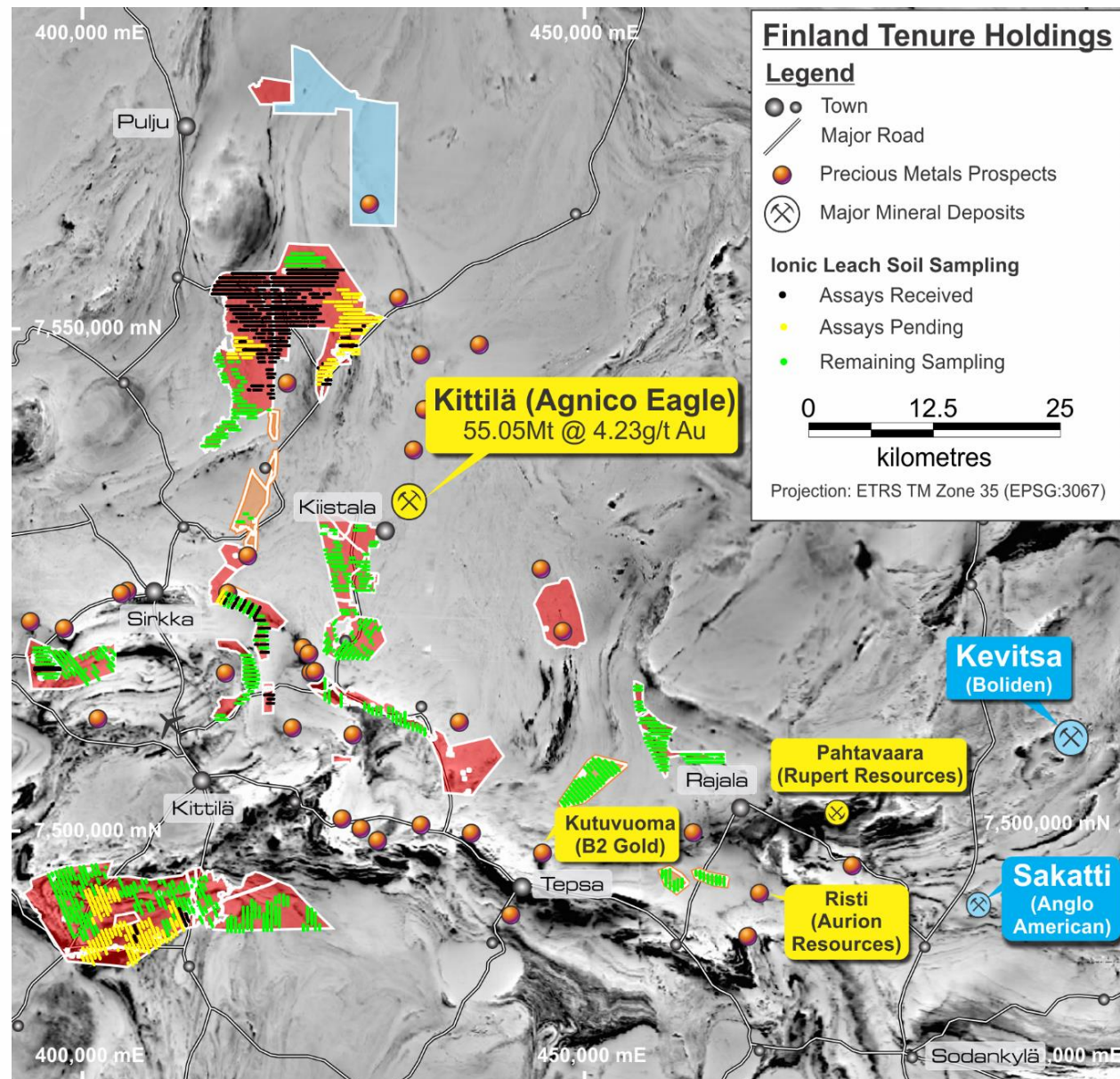
BOT drilling has been undertaken on a small proportion of the ionic leach anomalies

VTEM has been flown over the Ruopas area (south of the town of Kittilä)

Limited ground EM (MLEM & FLEM) has been undertaken on selected VTEM anomalies

S2's first diamond drill program of one of its targets (Aarnivalkea) will commence in July

Much more ionic leach soil geochemistry, BOT drilling, ground EM and diamond drilling to come



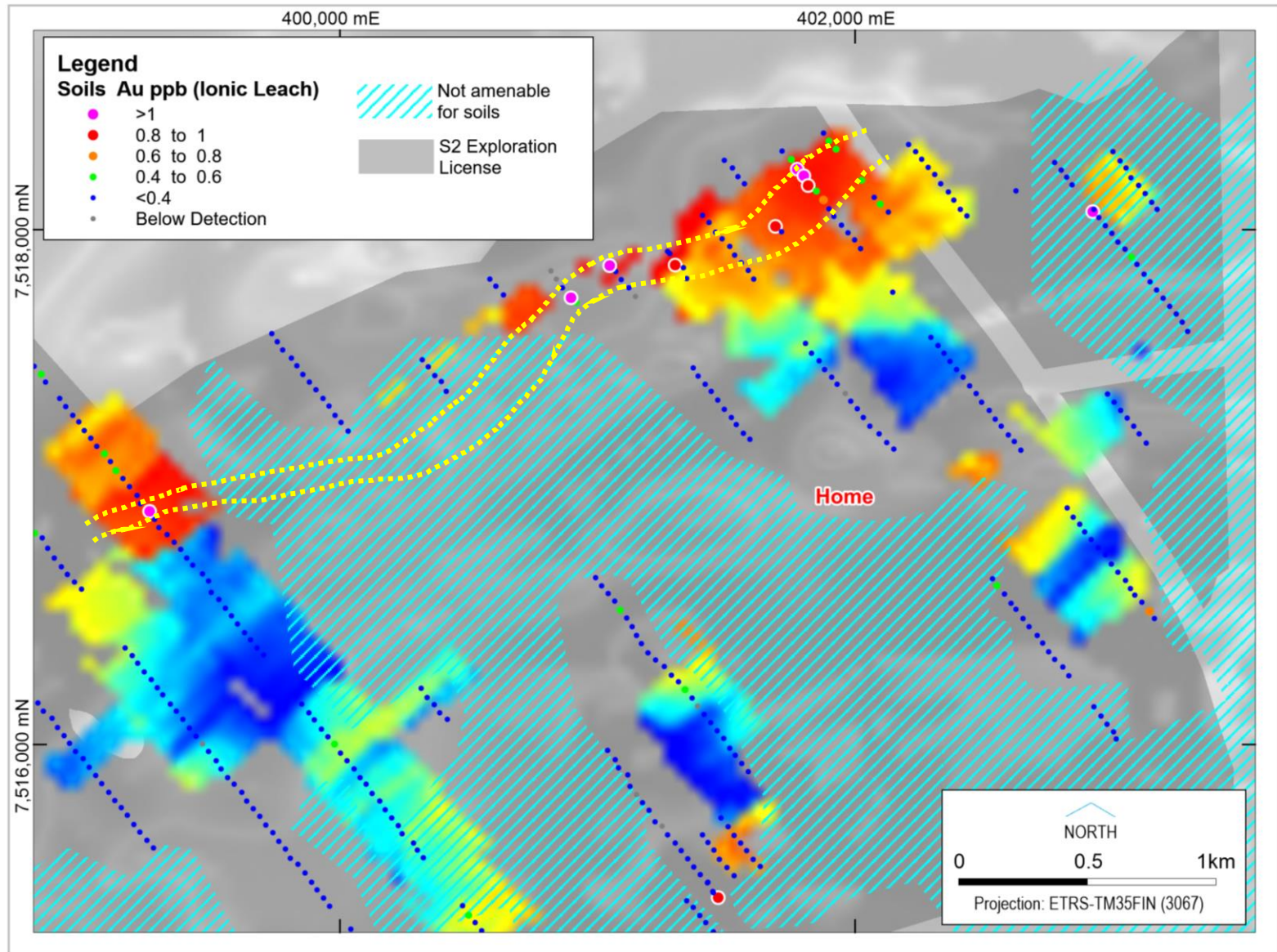


# The greenfields pipeline: Home

Ionic leach geochemical sampling has defined a 4 kilometer long linear gold anomaly on the Home licence

The central part of this trend is concealed by bog and therefore not sampled

An obvious place for follow up BOT drilling to verify its source



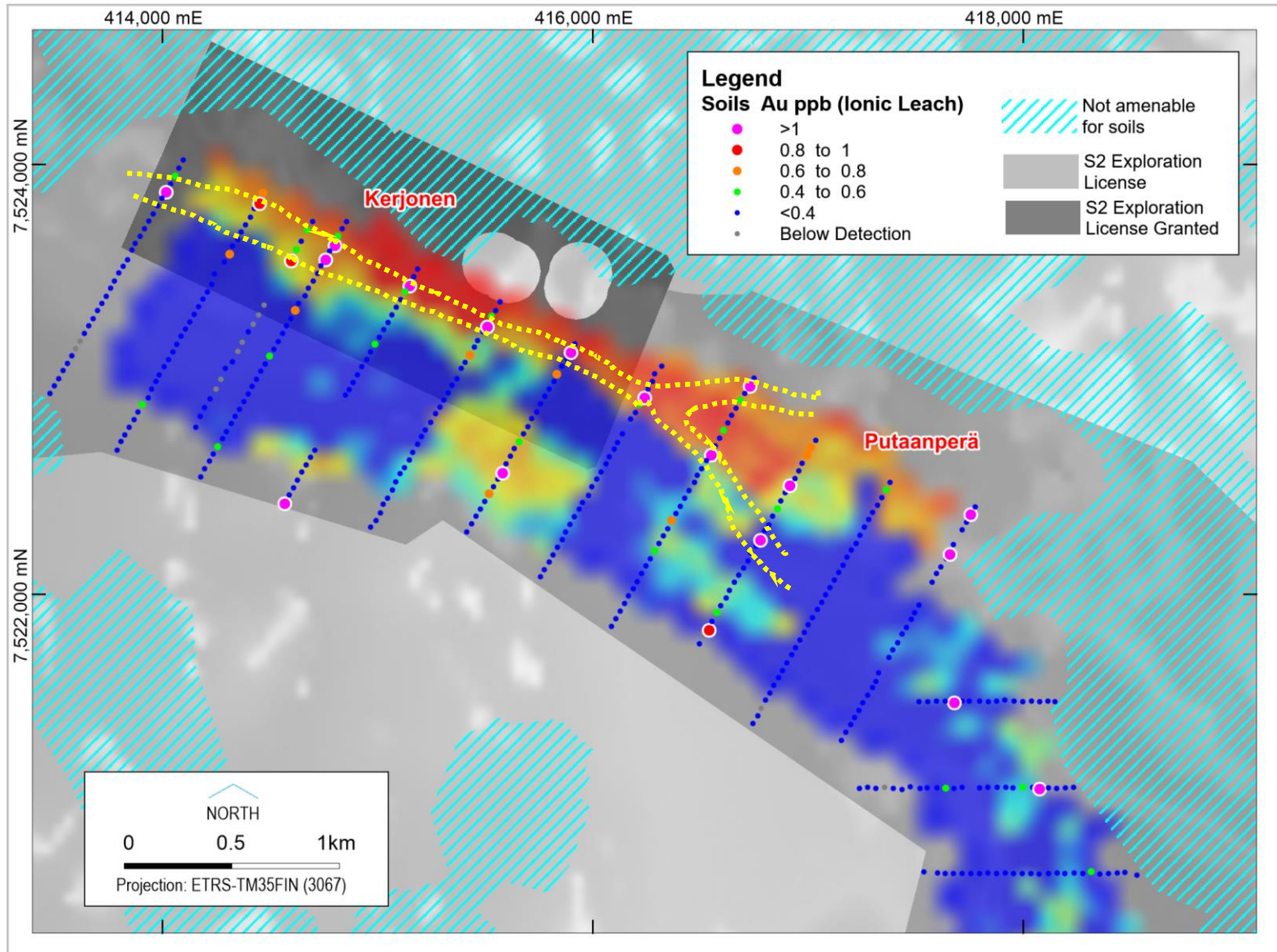


# The greenfields pipeline: Putaanpera/Kerjonen

Ionic leach geochemical sampling has defined a 3 kilometer long linear gold anomaly on the Putaanpera / Kerjonen licence, coincident with the trend of the Sirkka shear zone

The eastern end of this trend is concealed by bog and therefore not sampled, so it may extend further east

An obvious place for follow up BOT drilling to verify its source



**S2 is back in the Fraser Range, where it all began with Sirius ("S1")**  
**S2 also has the nickel rights at Polar Bear where it intends to follow up its previous nickel intercepts**





# Fraser Range: back to the future

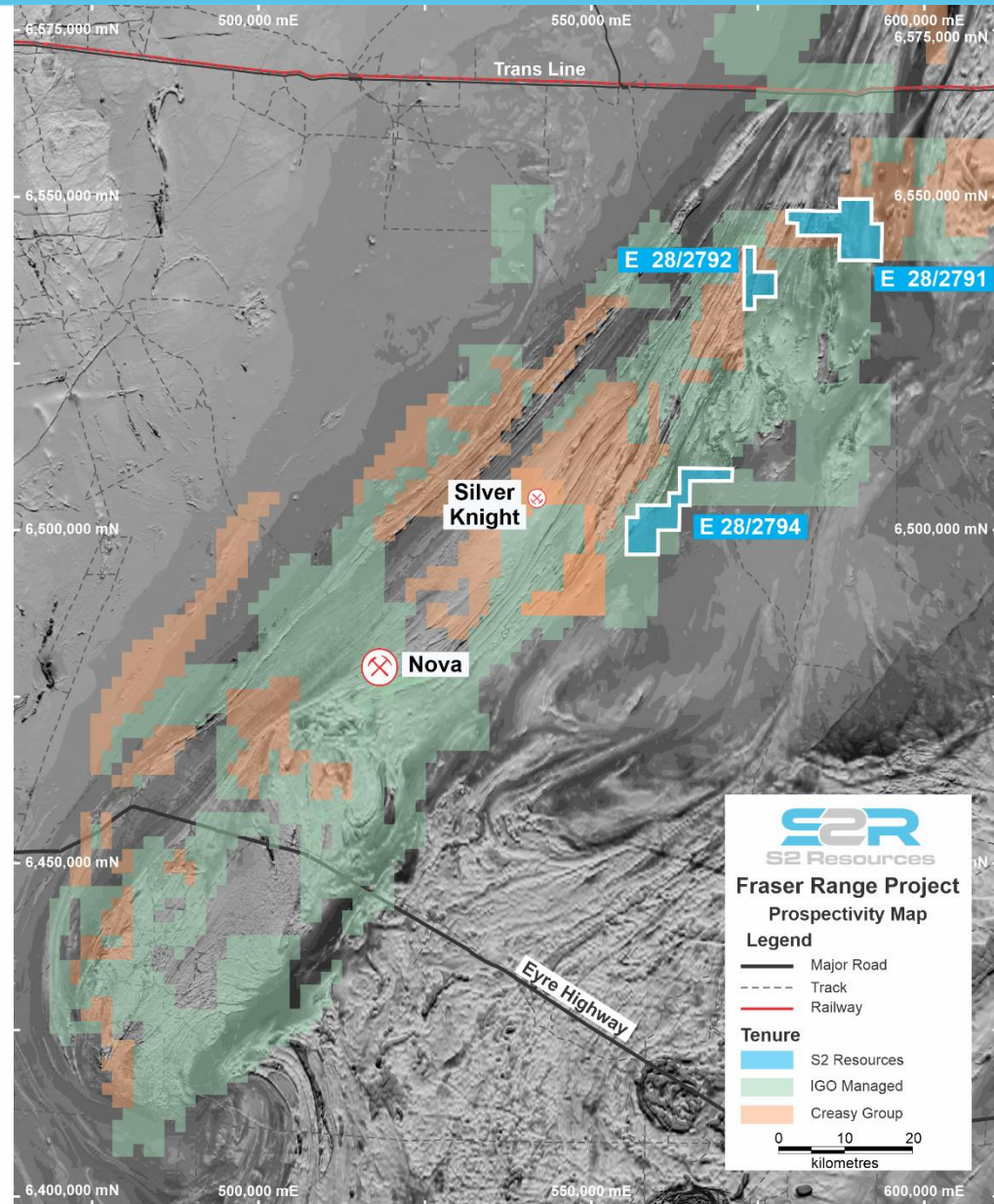
S2 won 3 ballots for ground releases in the Fraser Range

These ballots were contested by numerous other players

S2 now has sole exploration licence application rights over 170 square kilometres of ground in a district otherwise dominated by Mark Creasy and IGO

Public domain and prior exploration data is being compiled during the pre-grant phase so that exploration can commence immediately upon grant

Much of the area is under cover so the limited previous exploration may be ineffective



S2 is back in the Fraser Range where its personnel discovered Nova in 2012



# Polar Bear nickel: Taipan North

S2 retains the nickel rights on the Polar Bear tenements which were sold to Westgold for A\$9 million

The tenements include the Halls Knoll, Taipan and Taipan North nickel sulphide prospects

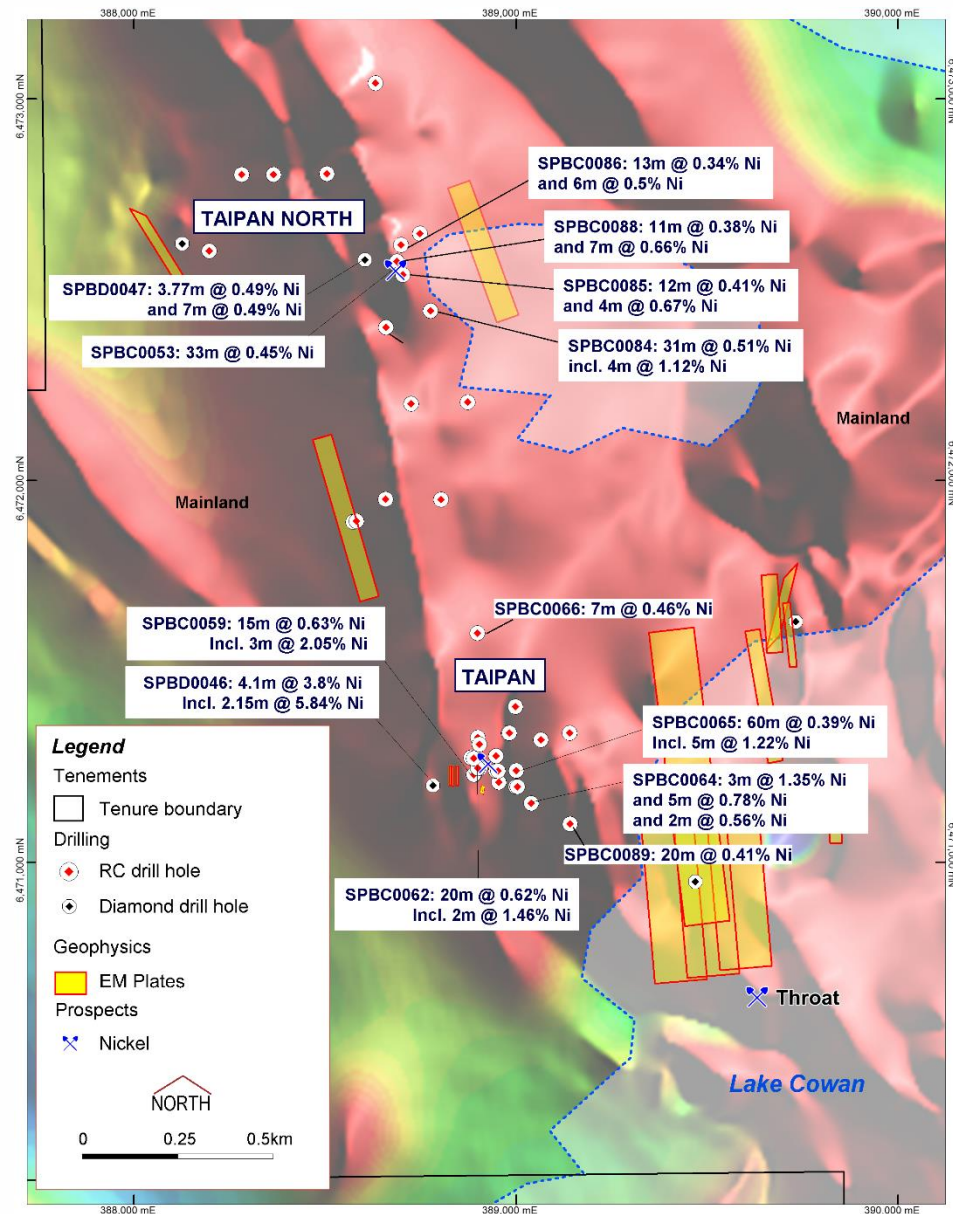
These were drilled by S2's forerunner, Sirius Resources, but drilling was curtailed as a result of the takeover of Sirius by IGO, the demerging of these assets into S2, and S2's subsequent focus on other areas

The Taipan North prospect comprises a thick, south plunging lava channel of high magnesium, low chrome cumulate ultramafics (the best sort) with thick intervals of disseminated and blebby nickel sulphides

Re-evaluation of the previous drilling has shown that the intensity of mineralization (grade x width) appears to be increasing down plunge

Previous drilling was RC and therefore also depth limited, so the mineralized zone is open below a vertical depth of 160 metres

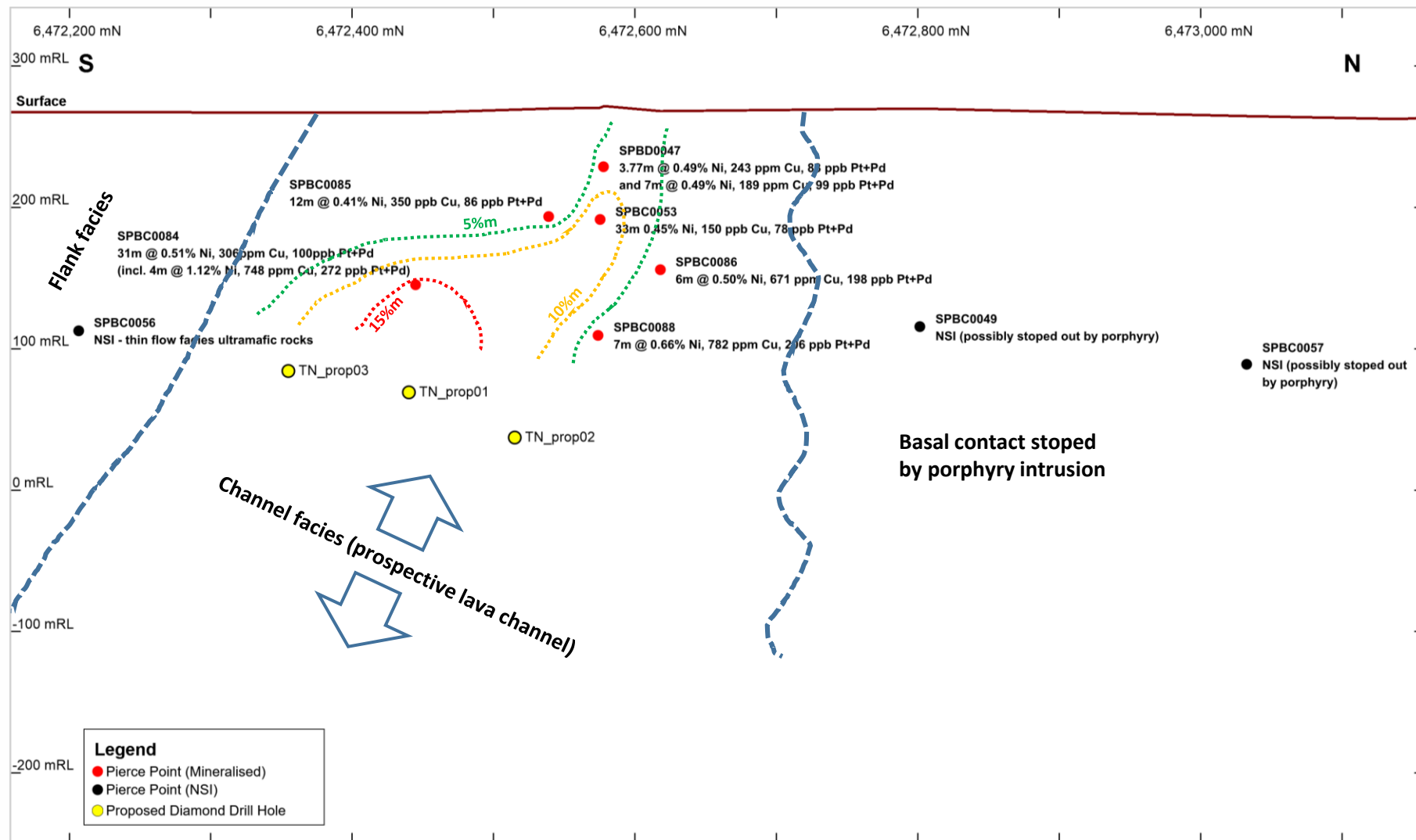
An initial three diamond holes have been planned to test the potential down plunge continuation of this zone





# Polar Bear nickel: Taipan North

Long projection of the Taipan North nickel prospect showing previous drilling by Sirius (S2's forerunner) and the three diamond holes planned to test down plunge from previous intercepts: geology and grade/width contours show increasing intensity of mineralization down plunge within a steep south plunging lava channel







# Why Nevada?

## Endowment

Demonstrably elephant country – numerous >10Moz gold deposits

## Exploration opportunity

Surprisingly under-explored for such a major gold producing region

## Accessibility

Exploration friendly infrastructure, topography and climate (counter-seasonal to Finland)

## Permitting

Best jurisdiction in USA, being further streamlined by new legislation

## Talent pool

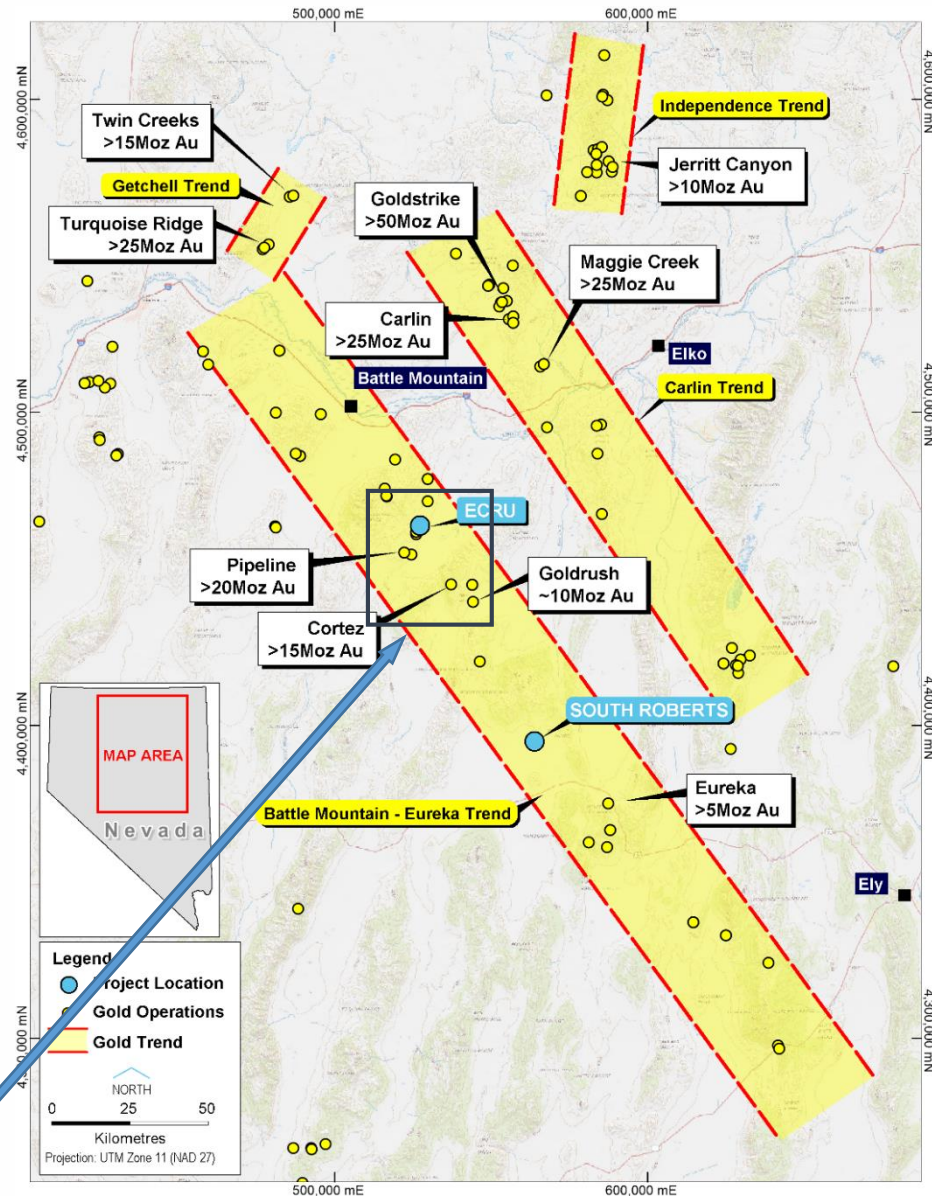
Established mining know-how and labour force

## Tax regime

Best in USA (which is why the Tesla giga-factory is near Reno)

## Geopolitical risk

Ranks 1st globally in Fraser Institute investment attractiveness index

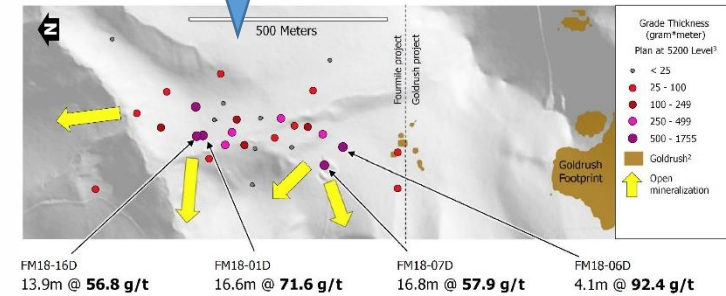
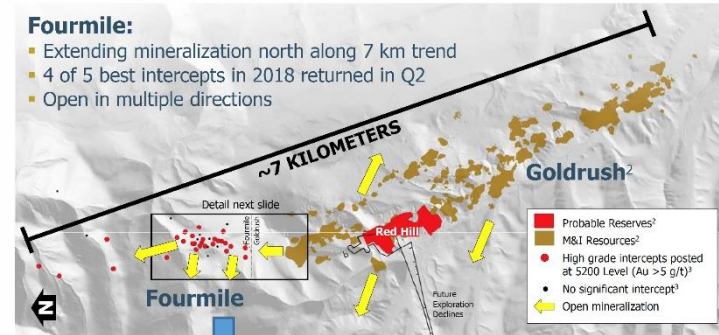


Location of next slide



# Why Ecu?

Ecu is located in the heart of elephant country – adjacent to Barrick's Cortez district landholdings which contain ~50Moz gold  
Barrick's recent Fourmile discovery reaffirms the potential and the opportunity in this district, comprising thick, extensive, high grade gold mineralization\*



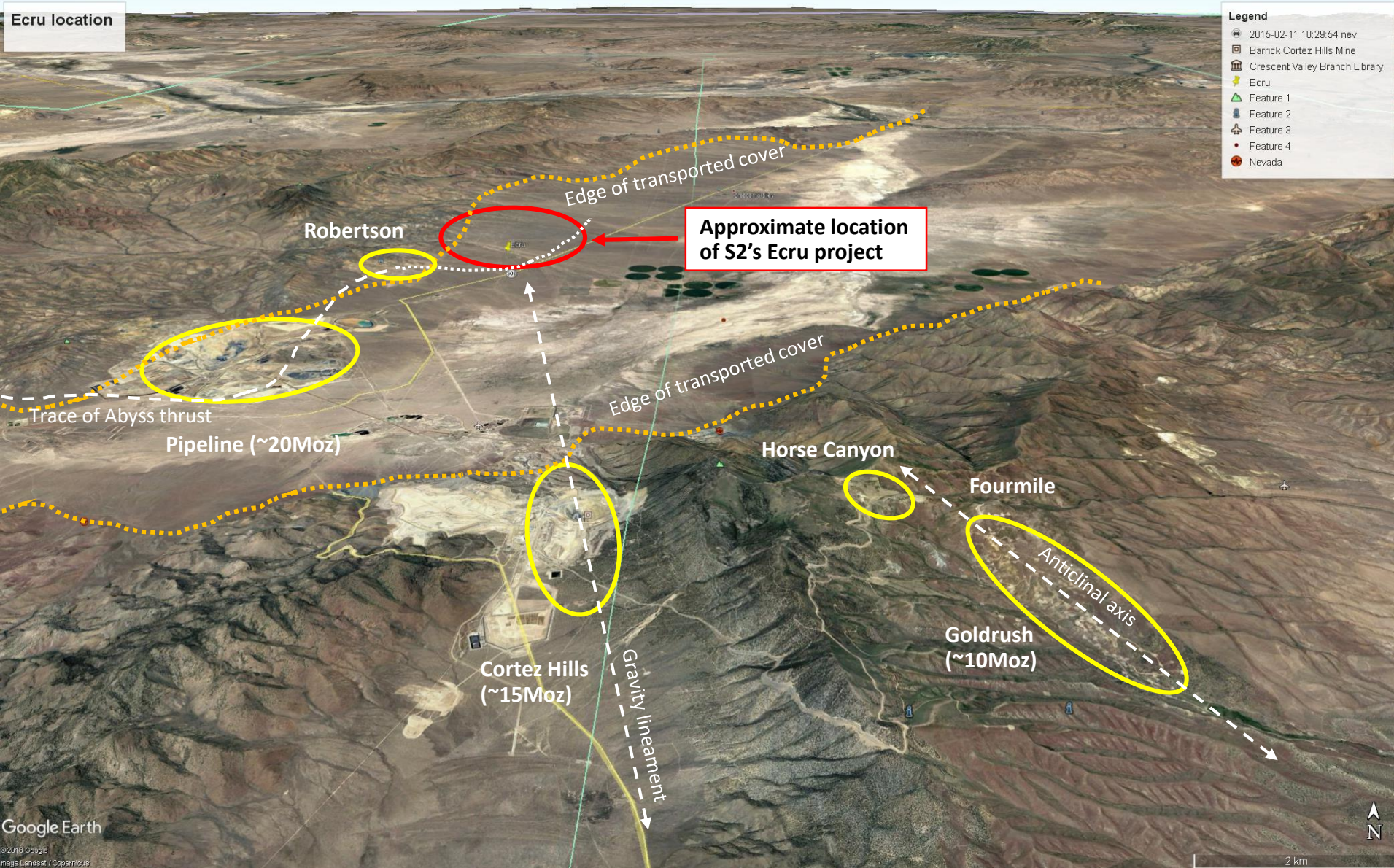
Detailed sample results from significant intercept of 16.6 m @ 71.6 g/t

From (m)	To (m)	Au g/t
715.8	717.3	43
717.3	718.9	70.6
718.9	720.2	42.1
720.2	721.8	60.1
721.8	723.3	53.2
723.3	724.8	82.0
724.8	726.3	160.5
726.3	727.9	106.5
727.9	729.4	81.7
729.4	730.9	70.2
730.9	732.4	14.35





# Ecrú: elephant country

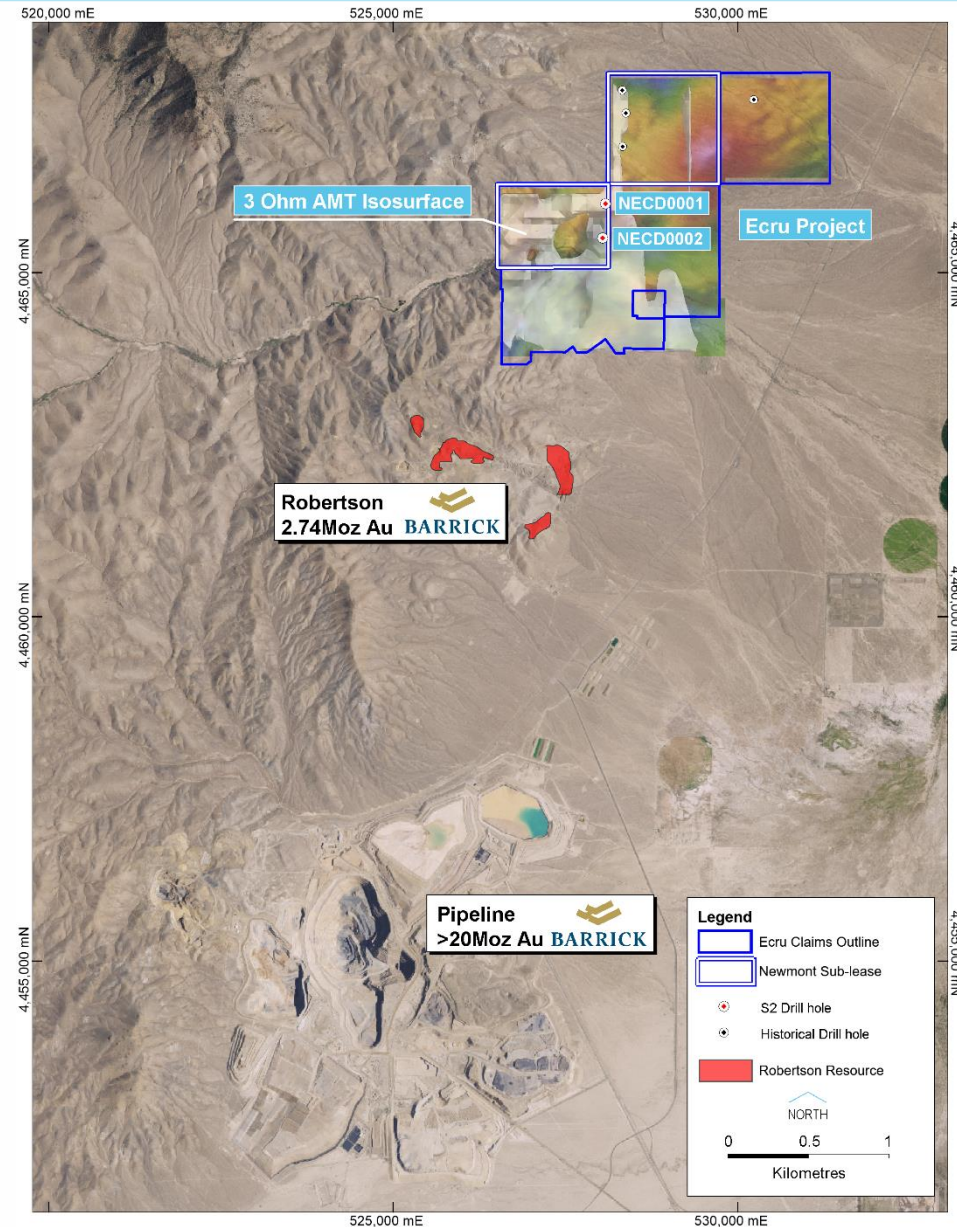




# Ecru: location

Ecru is along the projected strike extension of the thrust fault that controls Barrick's >20 million ounce pipeline gold mine

Detailed AMT and gravity surveys have defined a broad, highly conductive zone measuring 2 kilometres across, open to the south towards Barrick's Robertson resource

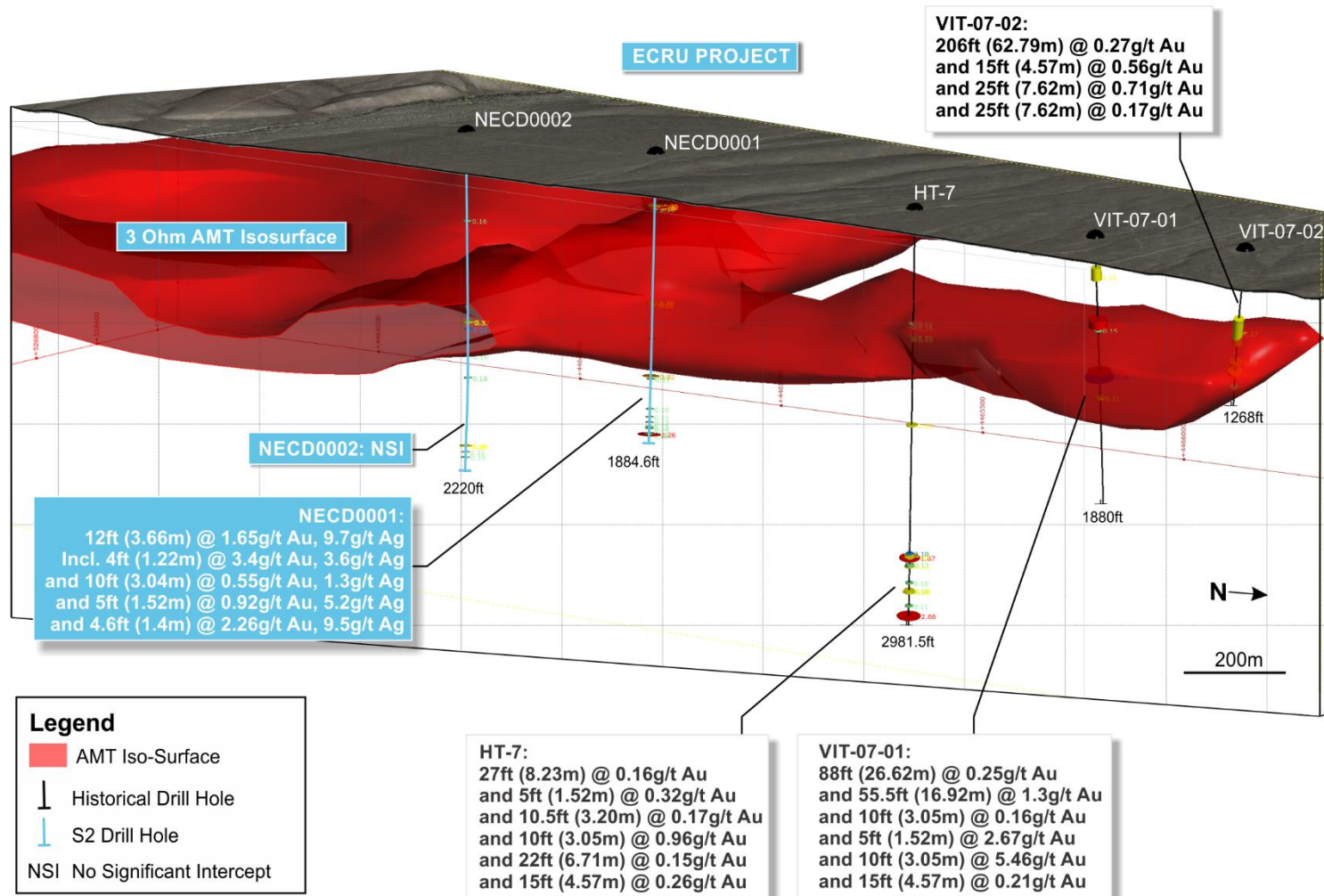




# Ecru: status

S2's first two drillholes (NECD0001 & 0002) did not reach target depth (lower plate) due to drilling problems, but encountered low level gold in the upper plate rocks above the target zone

Considering moving south towards Barrick's Robertson resource, which is in upper plate rocks and can be tested with shallower RC drilling



- S2 is well funded to realise its exploration opportunities with A\$13.4 million and prudent financial management
- In Finland the hard yards have been done (proof of concept and methodology, initial recon) and we are positioned to begin drill testing our first crop of gold and copper-nickel sulphide targets
- In the Fraser Range S2 now has sole application rights to 170 square kilometres of ground in the Nova nickel province – our first foray back into the district where we discovered Nova in 2012
- At Polar Bear we have identified an ultramafic lava channel of the right kind (thick and hot) with significant disseminated nickel sulphide mineralisation which we can chase down plunge relatively quickly and cheaply
- In Nevada we are awaiting “bug dates” to better understand the stratigraphy before the next round of drilling in a world class district

