

# Exploration update



Diggers & Dealers 2018



# 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.



## **Cash and investments total A\$23.3 million\*, comprising:**

- A\$15 million cash
- 4 million WGX shares worth A\$7.4 million
- 1 million GTT shares worth A\$0.9 million

## **Well funded but very low Enterprise Value – trading close to cash backing**

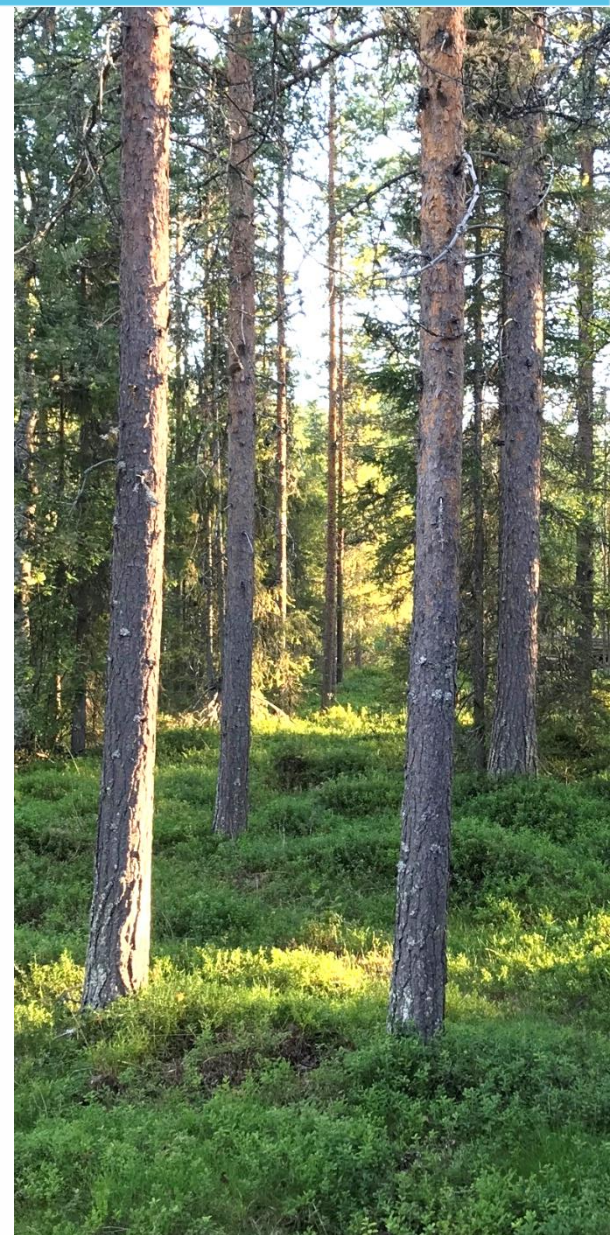
## **Exploring for giant Carlin-style gold deposits in Nevada:**

- In elephant country (Barrick's Cortez operations ~50Moz gold endowment)
- Recently extended mineral rights at Ecu via sublease from Newmont
- Gravity underway, AMT next, then first drilling in October





## **Exploring for world class lode gold and magmatic nickel-copper-cobalt-PGE deposits in northern Finland:**

- In elephant country (Agnico Eagle's Kittila gold mine, Anglo American's Sakatti nickel-copper-cobalt-PGE deposit)
- Major reconnaissance ionic leach geochemical survey 50% complete – identifying distinct new gold anomalous trends for follow up
- Large VTEM survey startup imminent – aiming to identify EM conductors prospective for massive sulphide mineralization

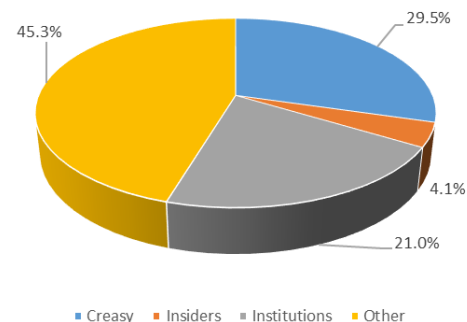
## **Retained nickel rights at Polar Bear following sale to Westgold**



## Experienced board with wide skill base and strong track record of creating value

	<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-focussed 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>

Shareholder groups



12 month share price chart



<b>Shares on issue</b>	<b>247.9m</b>
<b>Options on issue</b> (average exercise price A\$0.35)	<b>52.2m</b>
<b>Cash + investments*</b>	<b>A\$23.3m</b>
<b>Debt</b>	<b>Nil</b>
<b>Market capitalisation</b> (at A\$0.10 per share)	<b>A\$24.8m</b>
<b>Enterprise value</b>	<b>A\$1.5m</b>
<b>Top twenty shareholders</b>	<b>63.5%</b>

\* Includes cash at bank plus value of investments in listed companies at end June 2018



# Nevada





# 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

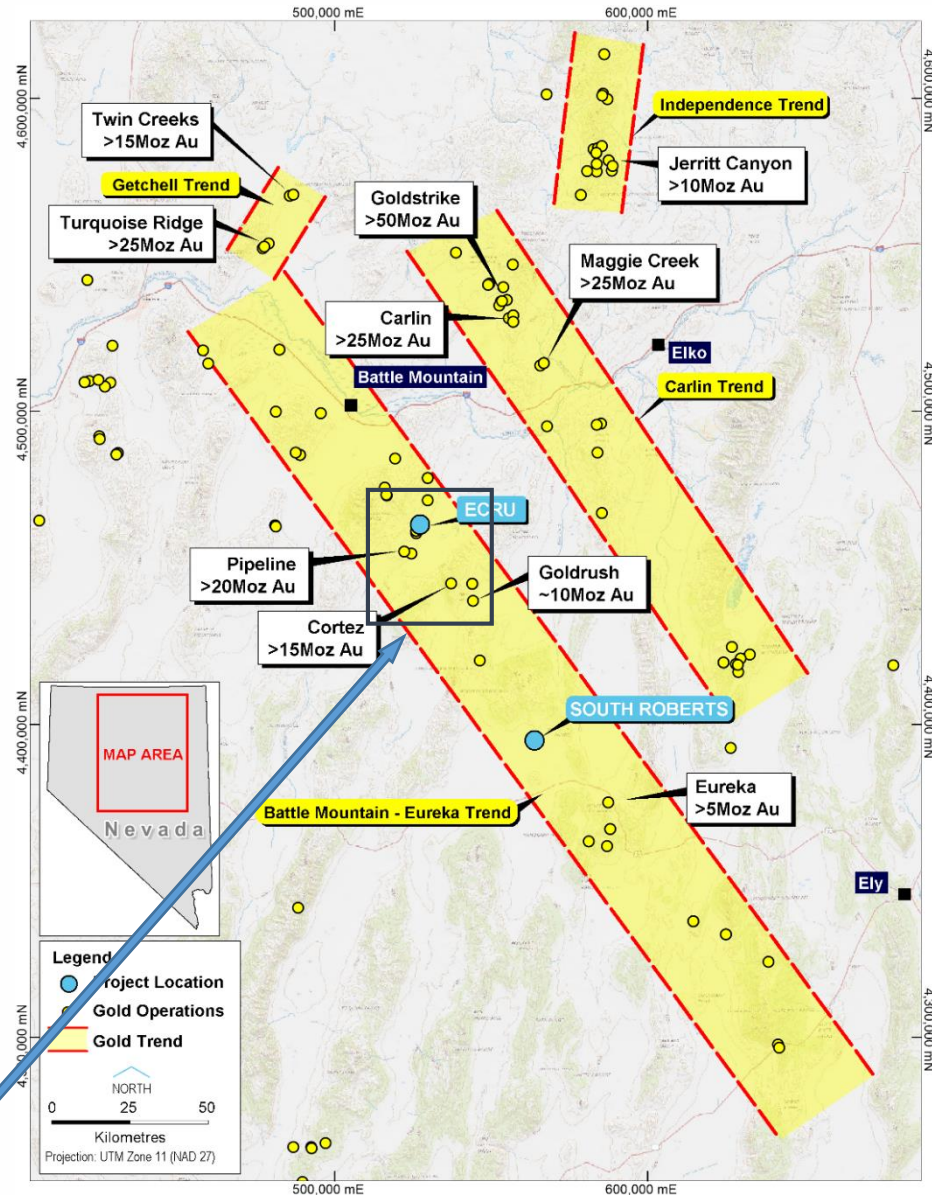
Established mining know-how and labour force

## Tax regime

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

## Geopolitical risk

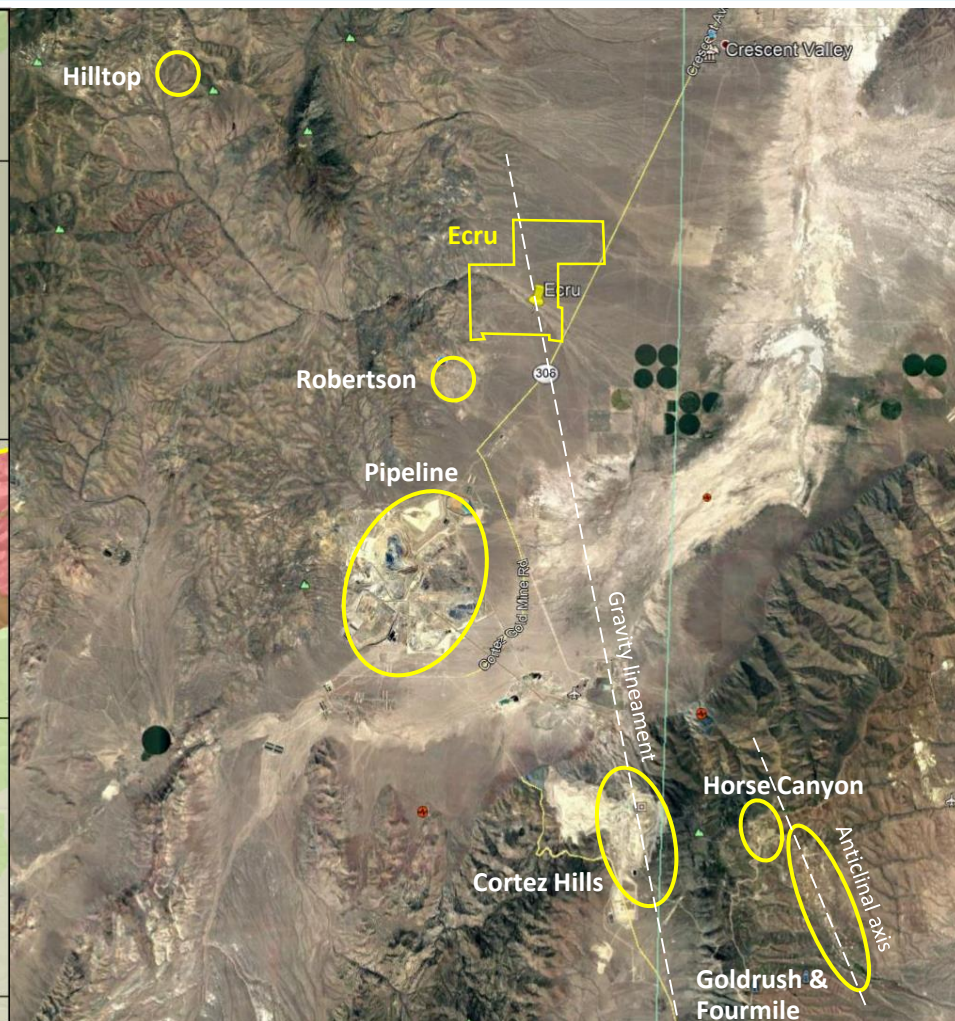
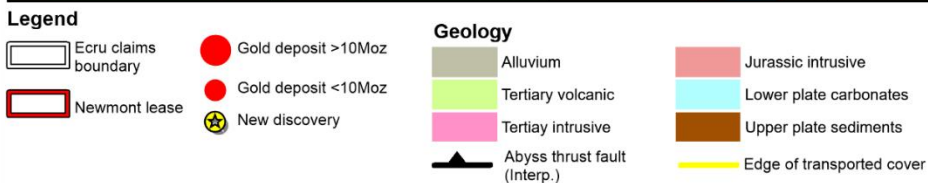
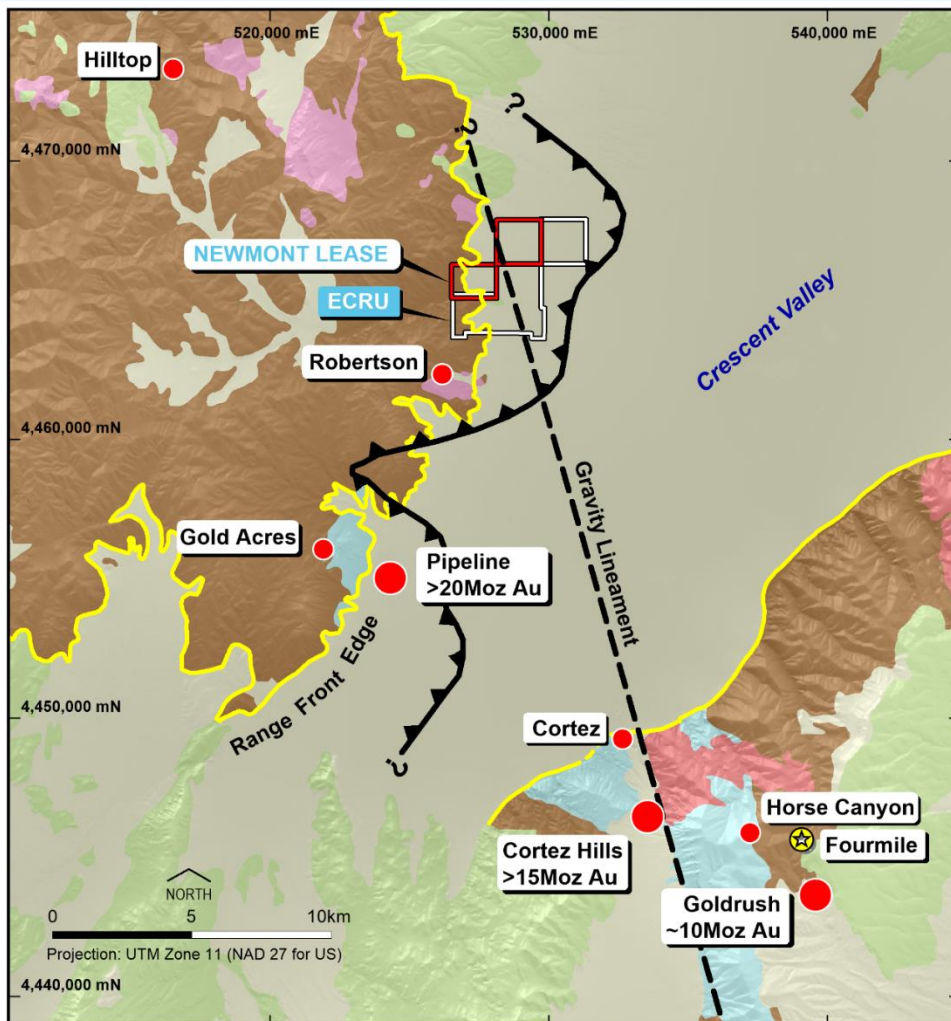
Ranks 3<sup>rd</sup> globally in Fraser Institute investment attractiveness index (behind Finland and ahead of Western Australia)



Location of next slide



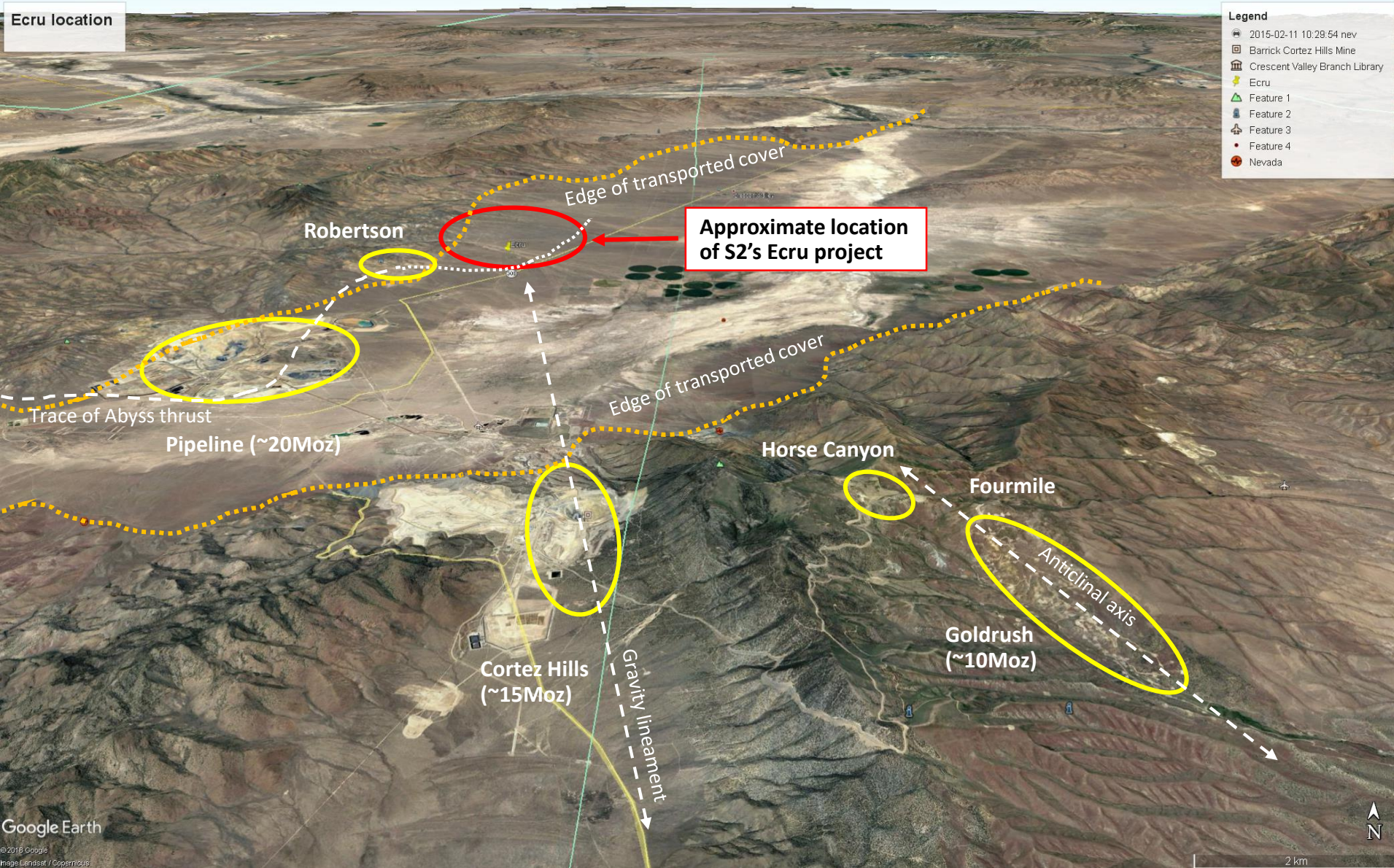
# Ecru: elephant country



Ecru (now with expanded mineral rights on the Newmont lease\*) is located in the heart of Barrick's Cortez mining district, which has an estimated gold endowment of ~50Moz



# Ecru: elephant country

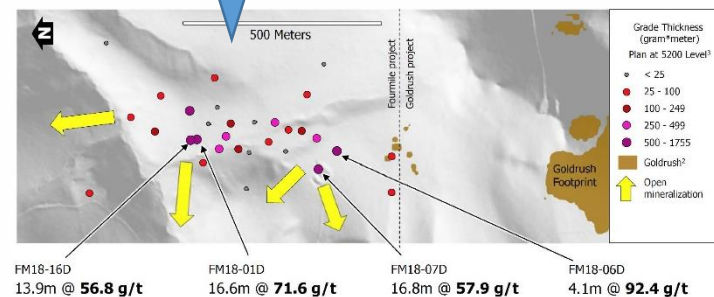
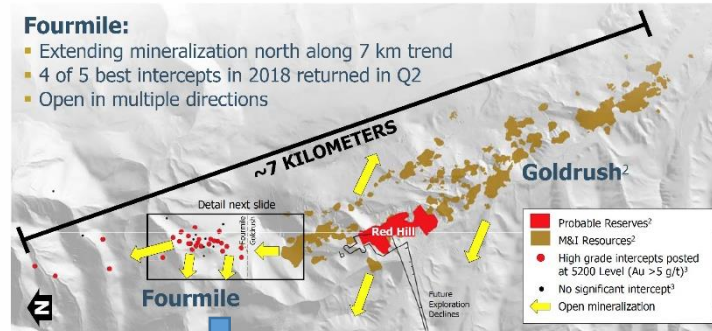




# Ecrú: elephant country

An example of gold endowment and continuing discovery potential of the Cortez district:

Barrick's recent Fourmile discovery, NNW of Goldrush, comprises thick, extensive, high grade gold mineralization\*





# Ecru: upcoming exploration

## **Drone survey**

Aerial photographic survey

Aim: identify location of numerous small workings and ground disturbance before start of drilling

Starts: anytime - on standby due to smoke from California wildfires

## **Gravity survey**

Gravity coverage over new ground

Aim: map gravity high which may represent an upthrown block containing favourable host rocks

Starts: ~10<sup>th</sup> August

## **AMT survey**

Audiomagnetotelluric (AMT) survey over existing and new ground

Aim: map 3D stratigraphy, structure and potential alteration zones to finesse drill targeting

Starts: planned to start mid-September

## **Drilling**

Two deep stratigraphic/reconnaissance diamond core holes

Aim: confirm presence/depth of preferred hostrocks and detect signatures of mineralization

Starts: scheduled to start mid-October





# Finland





# Central Lapland Greenstone Belt: the opportunity

## Good known endowment

Proven endowment of significant gold and nickel-copper deposits, namely Agnico Eagle's 8Moz Kittila gold mine and Anglo American's Sakatti nickel-copper deposit (44.4Mt @ 1.9% Cu, 0.96% Ni, 0.04% Co, 1.46g/t Pt+Pd+Au)

## Limited effective exploration

"Drilling-lite" compared to most prospective districts elsewhere in the world

A consequence of terrain (thick forest, swamps), climate (long winters, short summers), and absence of deep weathering (no oxide zone - not suited to Australian-style RAB/AC blitz drilling)

## High potential endowment

The combination of good proven endowment and limited effective exploration creates high potential endowment

## Good government databases

Comprehensive country-wide geophysical and geochemical datasets, albeit on a wide spacing

*(although lack of an accessible online open file system for previous exploration work is inhibitive)*

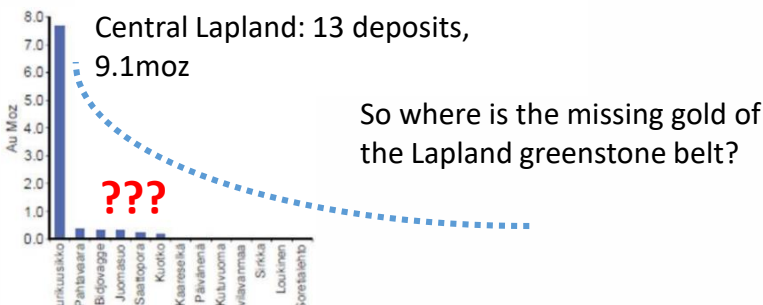
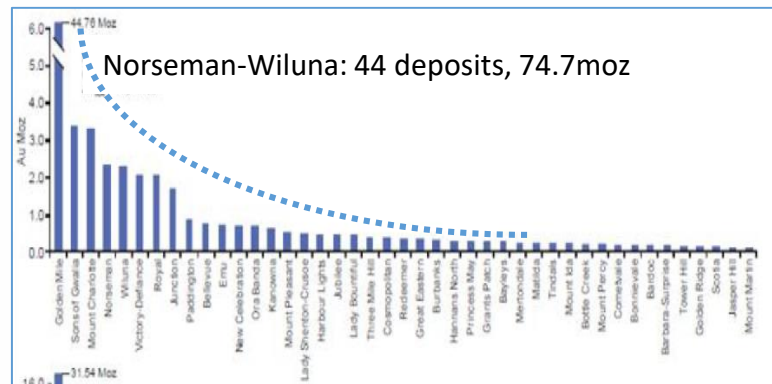
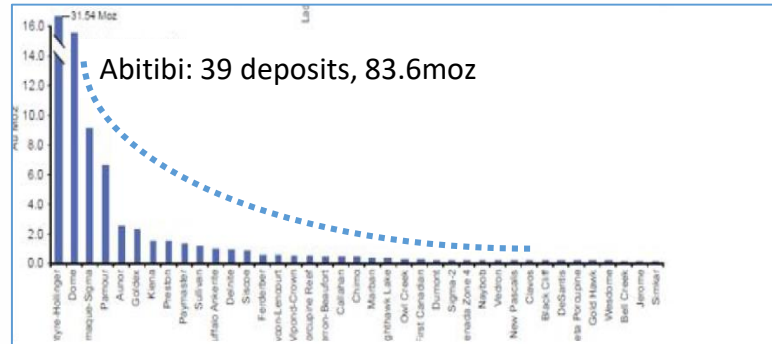
## Less competition

Fewer competitors than most well endowed/underexplored regions

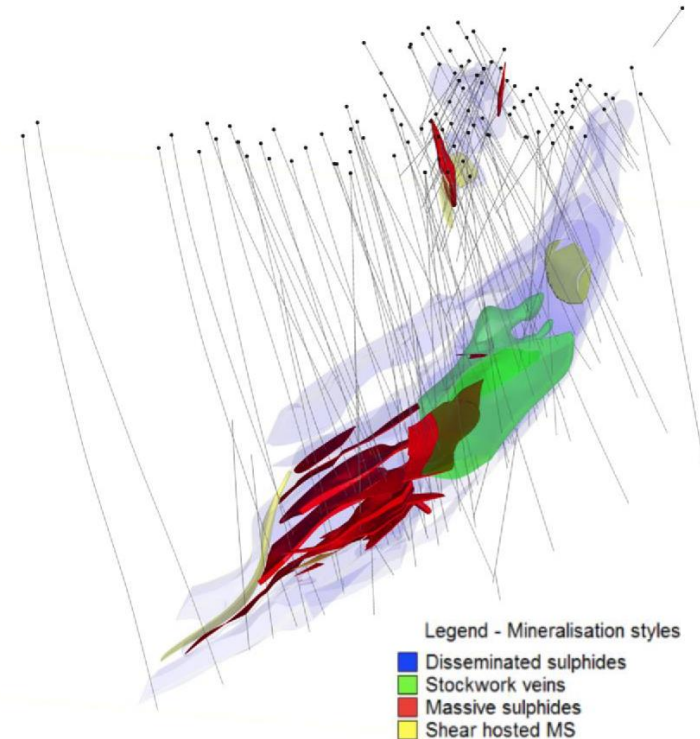


# Examples of known and potential endowment

**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):



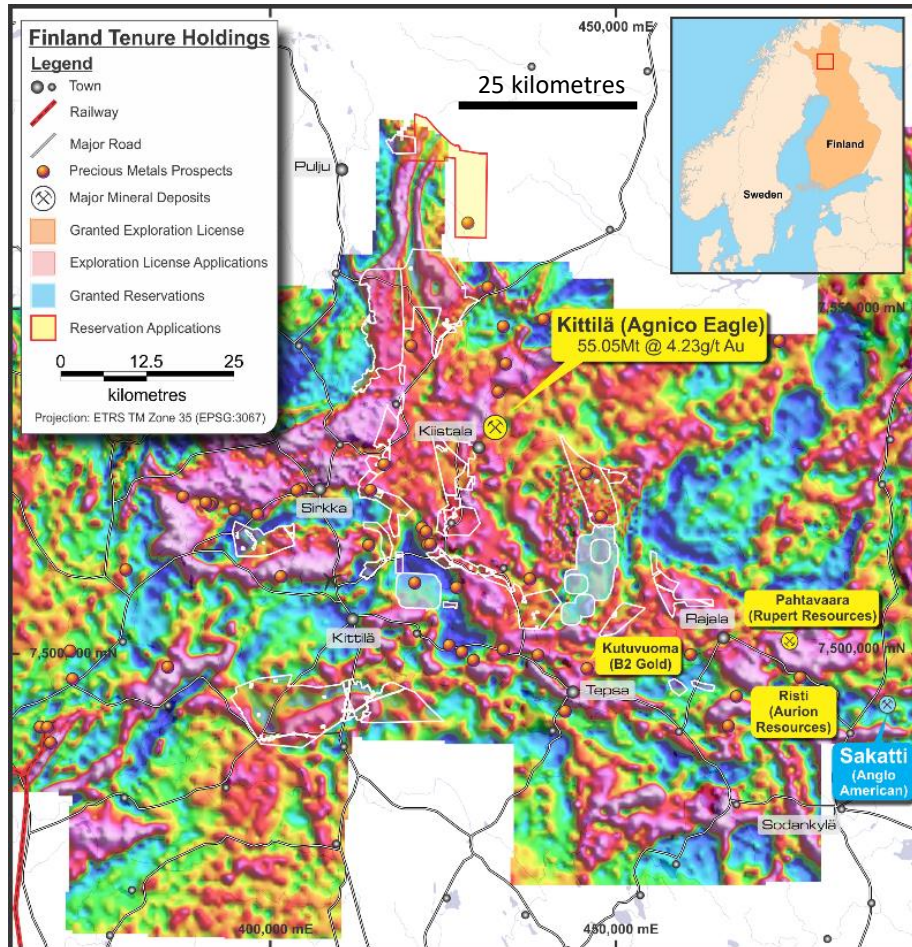
SAKATTI CU-NI-PGE							
Class	Mt	Cu%	Ni%	Co%	Pt g/t	Pd g/t	Au g/t
Measured	-	-	-	-	-	-	-
Indicated	3.5	3.45	2.47	0.11	0.98	1.18	0.33
Inferred	40.9	1.77	0.83	0.04	0.61	0.43	0.33
Yht.	44.4	1.9	0.96	0.04	0.64	0.49	0.33

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

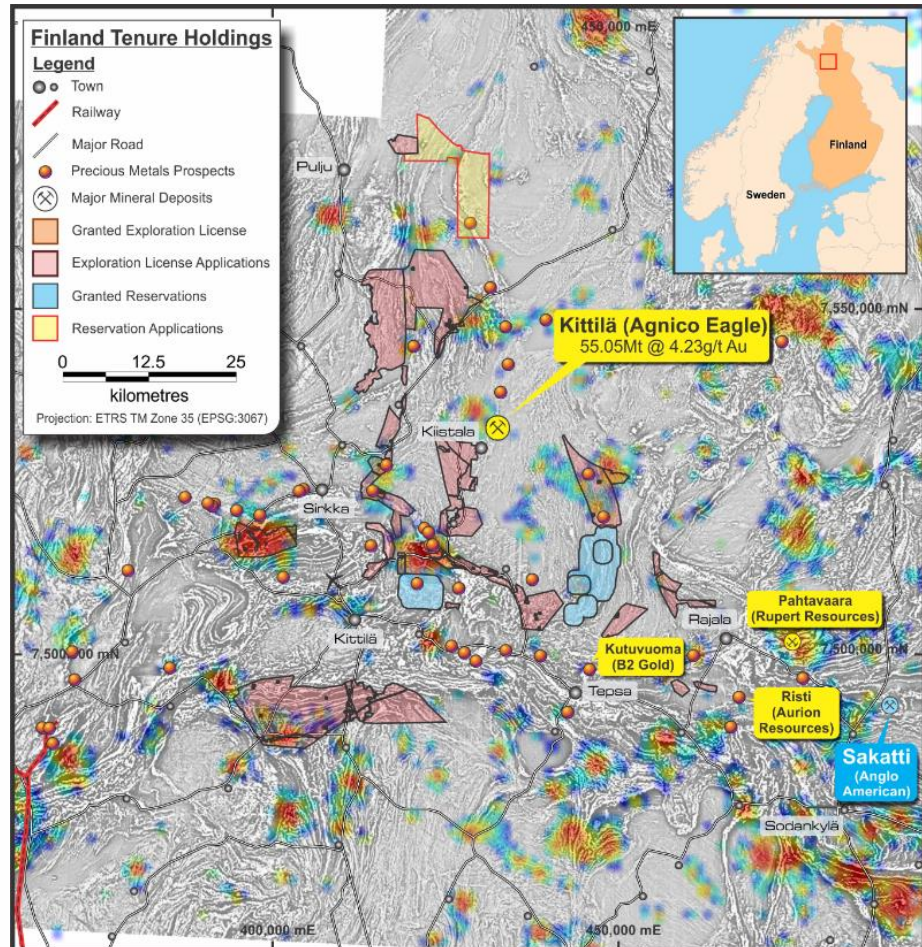


# Examples of government data

The Finnish Geological Survey (GTK) has compiled excellent datasets\* for exploration



Regional gravity image showing extent of greenstone belt and major intra-greenstone density domains and structures



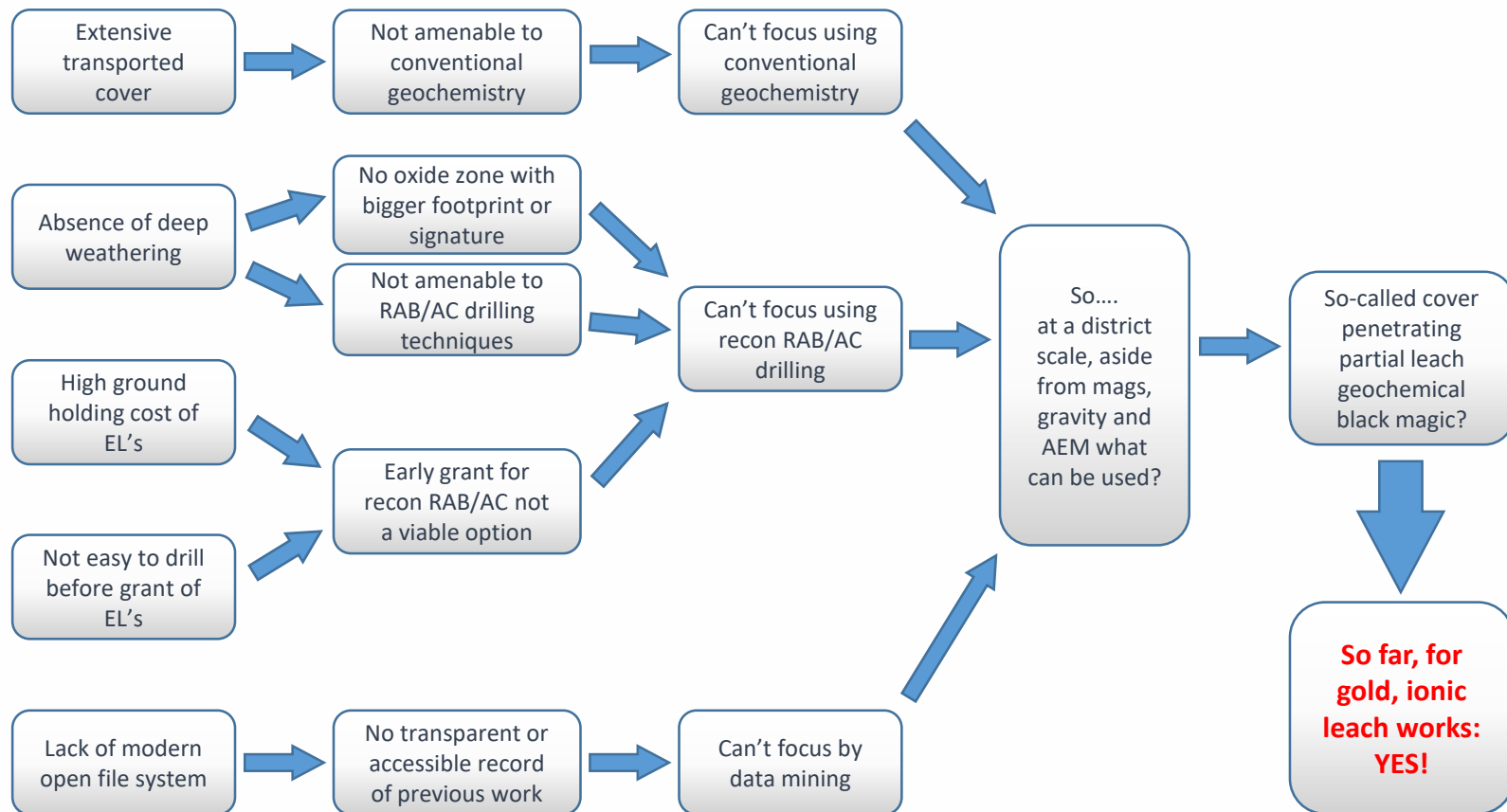
Regional till geochemistry (colour) showing gold anomalism, draped over regional aeromagnetic image (greyscale) showing finer detail of stratigraphy and structure



# Central Lapland Greenstone Belt: the big question...

## If the CLGB is so well endowed why aren't there more mines?

Various factors have to date impeded area selection, have limited efficient and focussed exploration, and have lessened the chance of success  
The challenge is to find a way of narrowing the search focus from district scale to drill target scale at a sensible cost in time and money



As a means of being able to make this leap, S2 successfully trialled ionic leach geochemistry and has now successfully implemented it  
This will enable better ground prioritization & rationalization, greater focus, lower cost, increased efficiency, and (hopefully) greater success



# 2018 ionic leach geochemical program on S2's CLGB tenure

S2 committed to a district scale ionic leach survey following successful orientation trials in 2017

At 14,000 samples, this is probably one of the largest ionic leach surveys ever conducted

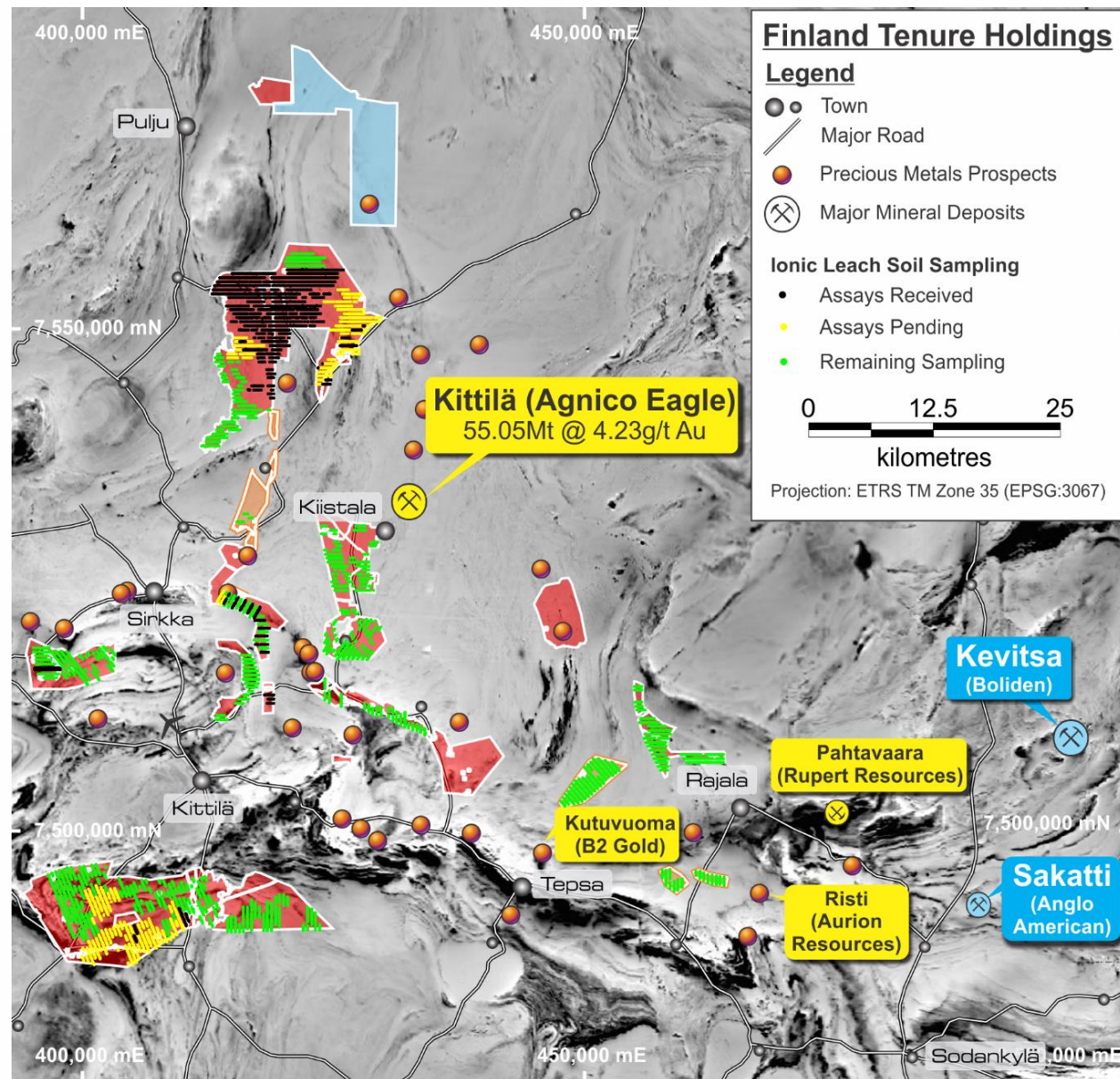
Sampling is ~50% complete and is on schedule to finish in late September before the winter freeze

Initial results from the Paana licence show that it is working, having defined several discrete and coherent gold anomalies within a broader corridor of arsenic anomalism

This is a vital step in enabling S2 to identify priority areas within its extensive CLGB land holding

This in turn will enable tenure rationalization, ground holding cost savings, and focusing of the next stage of exploration (base of till drilling or equivalent) to define specific drill targets – increasing technical, cost and time effectiveness - and the overall chance of success

Together with the imminent VTEM survey, this will also assist S2's magmatic nickel-copper search in the CLGB

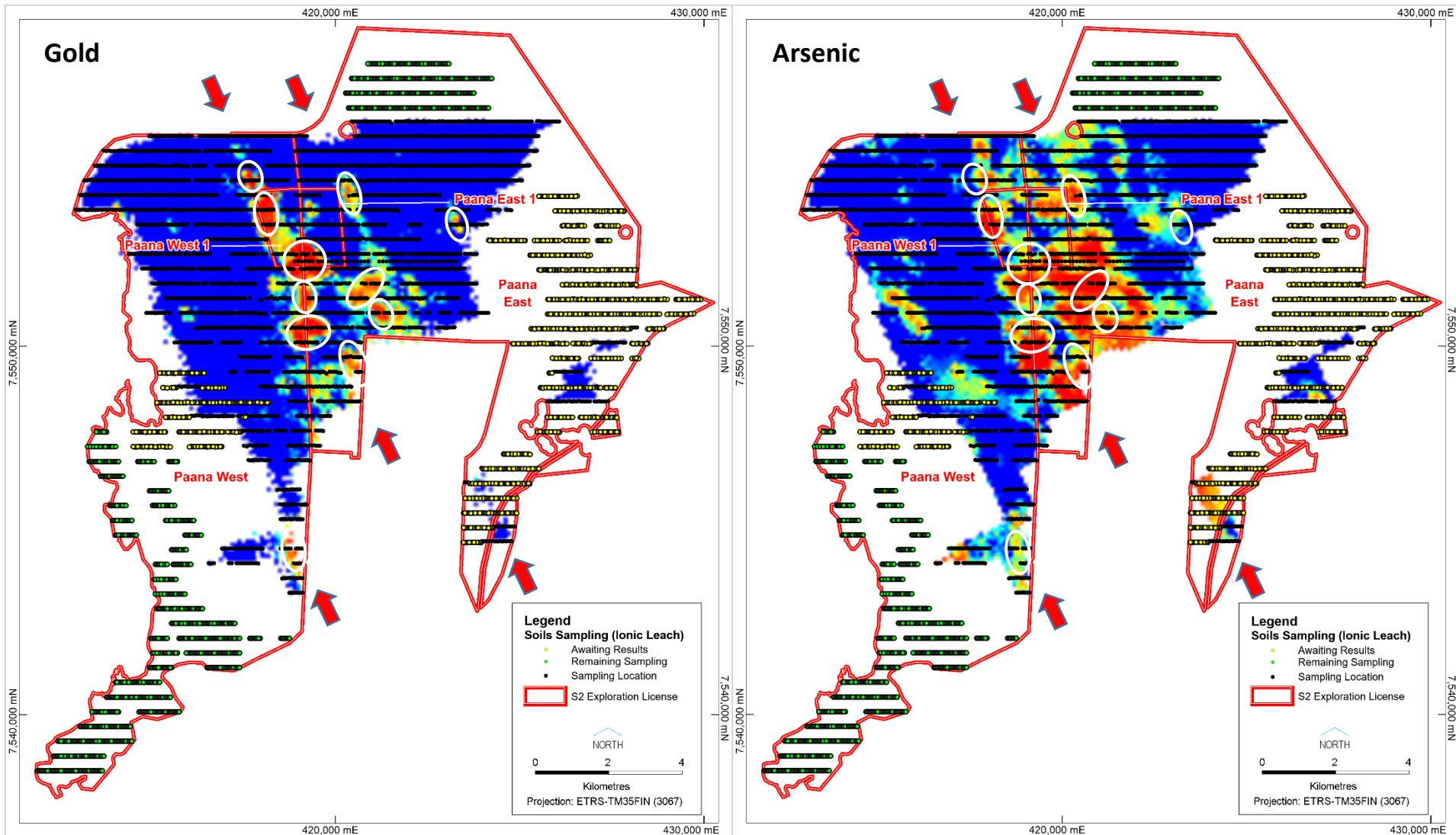




# 2018 ionic leach survey defines new gold corridors at Paana

At Paana, ionic leach has defined two distinct gold trends with several discrete “hotspots”, within a broader belt of arsenic anomalism

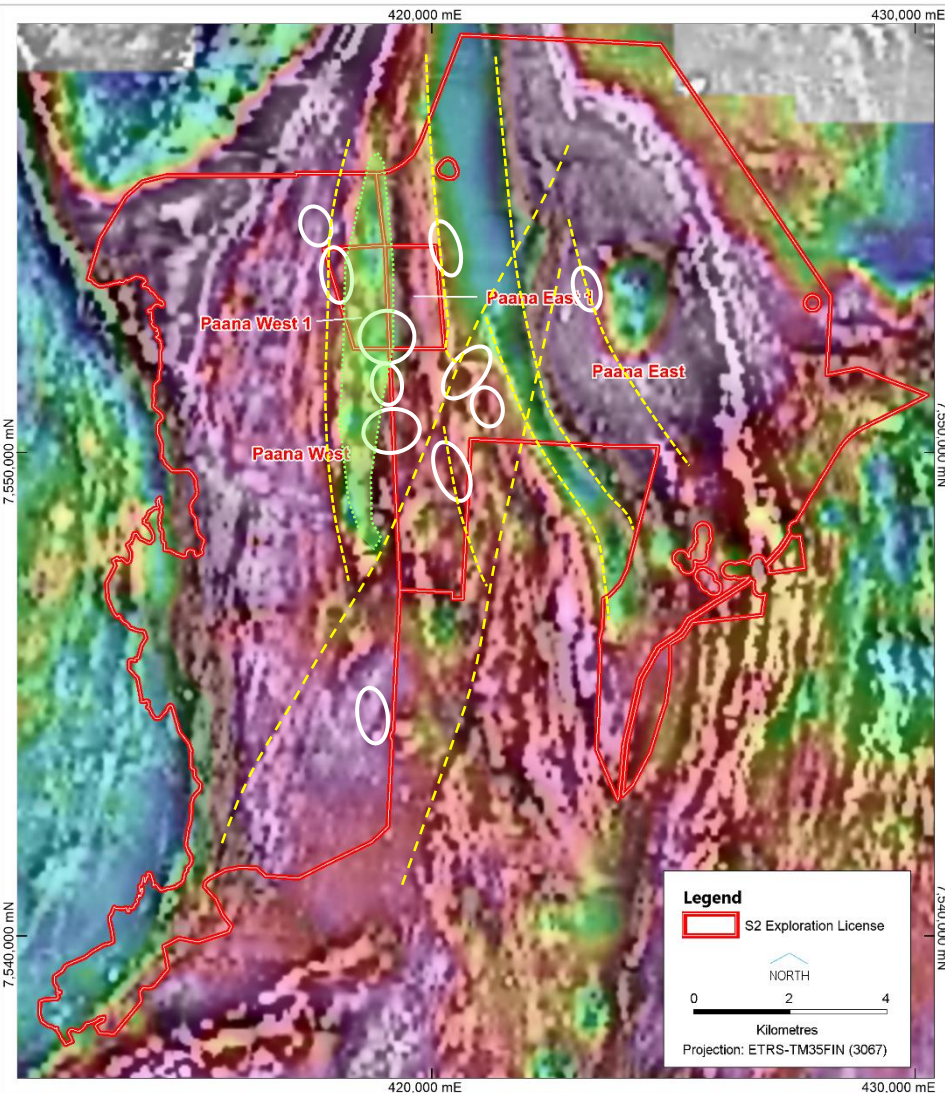
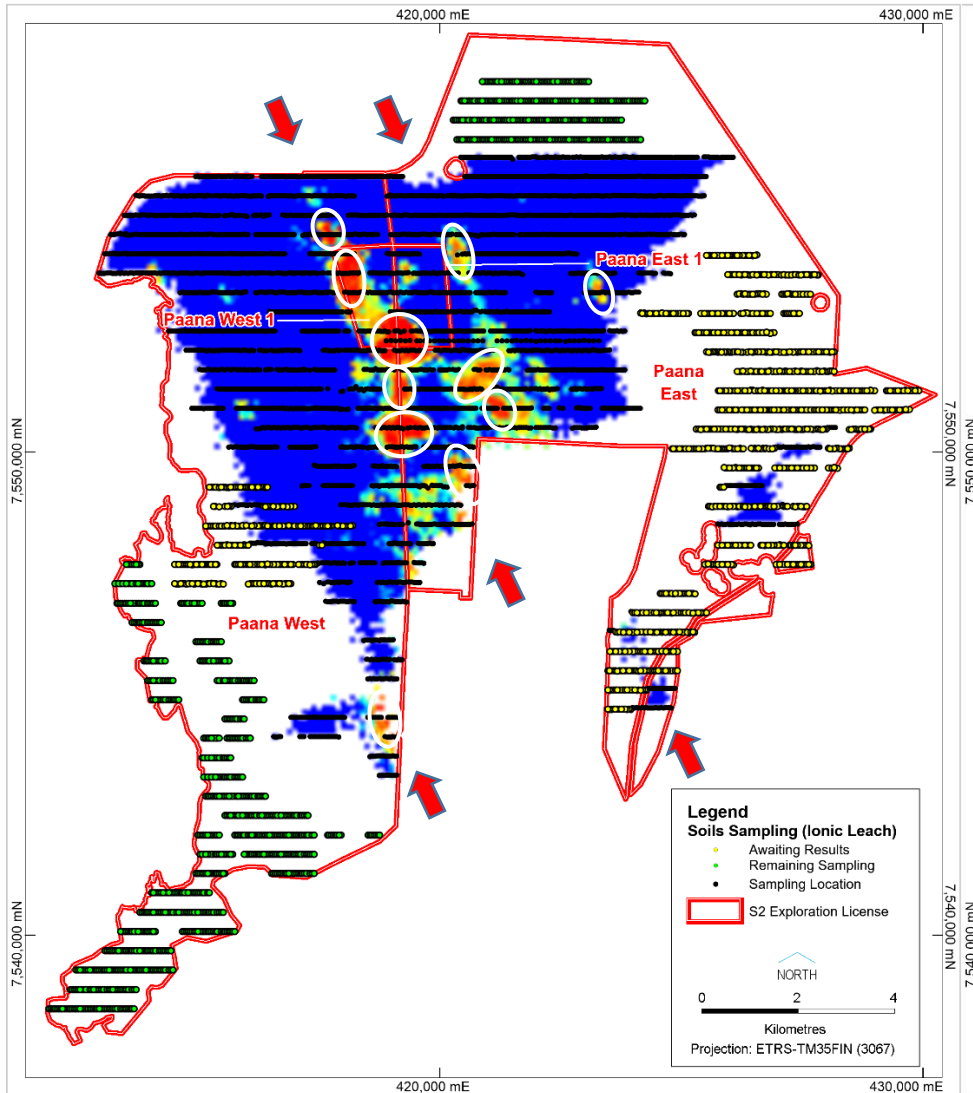
The anomalies are based on numerous samples and are spatially coherent, suggesting this is a real overburden-penetrating bedrock signal





# 2018 ionic leach survey defines new gold corridors at Paana

These anomalies coincide with magnetic breaks or gravity gradients, suggesting the structural control necessary for lode gold mineralization. This provides a means of prioritizing “live” from structures the many magnetic/gravity structures that are otherwise potential red herrings.





# Ruopas: searching for the next Sakatti-style deposit

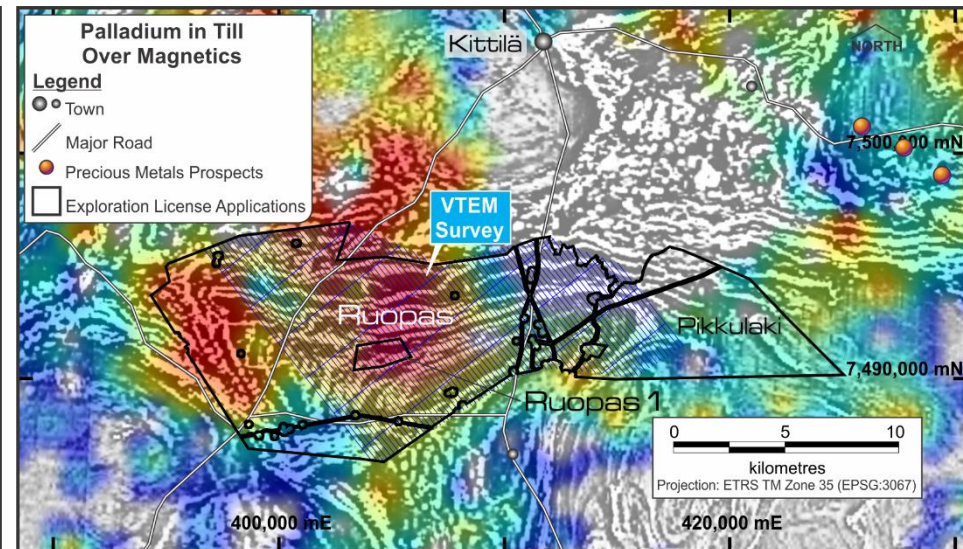
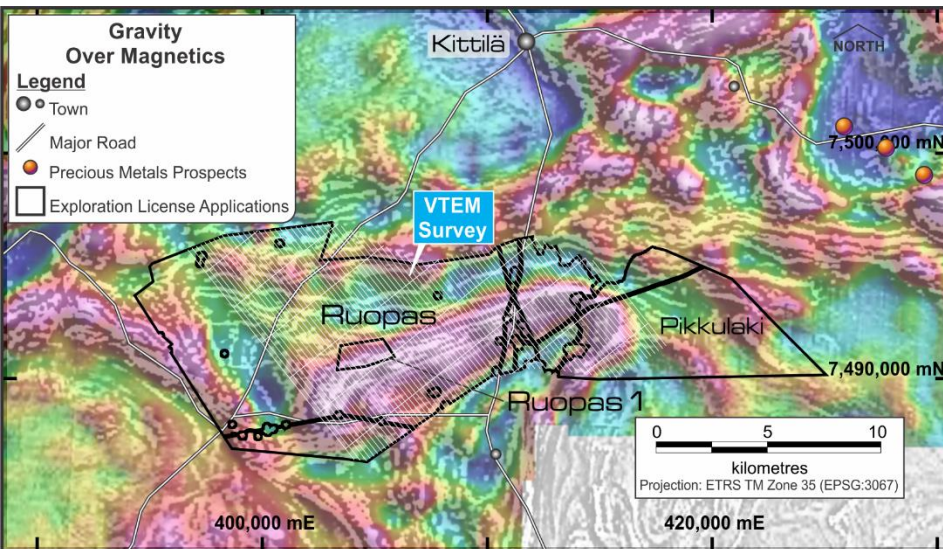
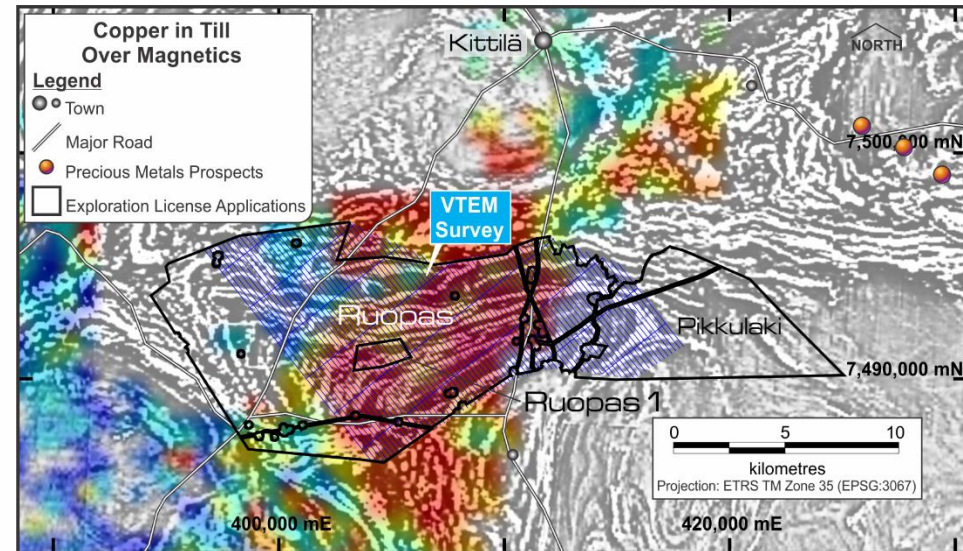
The CLGB is highly prospective for magmatic copper-nickel-PGM mineralization, as evidenced by Boliden's Kevitsa mine and Anglo American's Sakatti deposit, located further to the east in the same belt

S2's "Ruopas" licence covers a 25km long zone containing coincident copper and palladium anomalism defined in the GTK's (Geological Survey of Finland's) glacial till sampling database\*

It also contains a significant large scale gravity anomaly and smaller scale discrete magnetic anomalies

This is a district scale magmatic sulphide exploration target

A 900 line kilometer VTEM survey starts in the next few weeks and any conductors will be verified by MLEM over the winter





# Summary

Well managed, well funded explorer, with excellent discovery track record

Trading close to cash backing

Holds strategic positions in highly endowed but underexplored areas

Hunting for elephants in elephant country

Systematic strategy to optimise chance of success

Exploration underway in Finland and identifying new targets

Exploration kicking off in Nevada with drilling soon

