



**The Big Four:**  
How we're moving  
towards drilling

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EXPLORING FOR GOLD  
IN THE SHADOW OF A  
HEADFRAME

# Mineral discoveries – The **key** to shareholder value



**M**ineral discoveries are the name of the game for exploration companies.

They're the ultimate driver behind everything we do.

After all, regardless of whether they lead to a project acquisition, a takeover, or a farm-in...discoveries almost always create *major shareholder value*.

Isn't that the goal for any business – public or private?

The journey to a discovery will vary in many ways from project to project. One thing that will always be the same, however, is the need to *drill*.

Indeed, without being verified by the "truth machine", a discovery isn't a discovery at all; it's a prospect.

We understand this at **First Class Metals**.

That's why, after spending an extremely busy first year on the public markets consolidating and improving our understanding of our land package in ultra-mining-friendly Ontario...

We're now focused on taking our four most advanced projects to drill-ready status.

As we'll cover in this report, each of these assets represents an opportunity to uncover economic mineralisation in a market experiencing growing demand and shrinking supply.

## MINERAL DISCOVERIES – THE KEY TO SHAREHOLDER VALUE

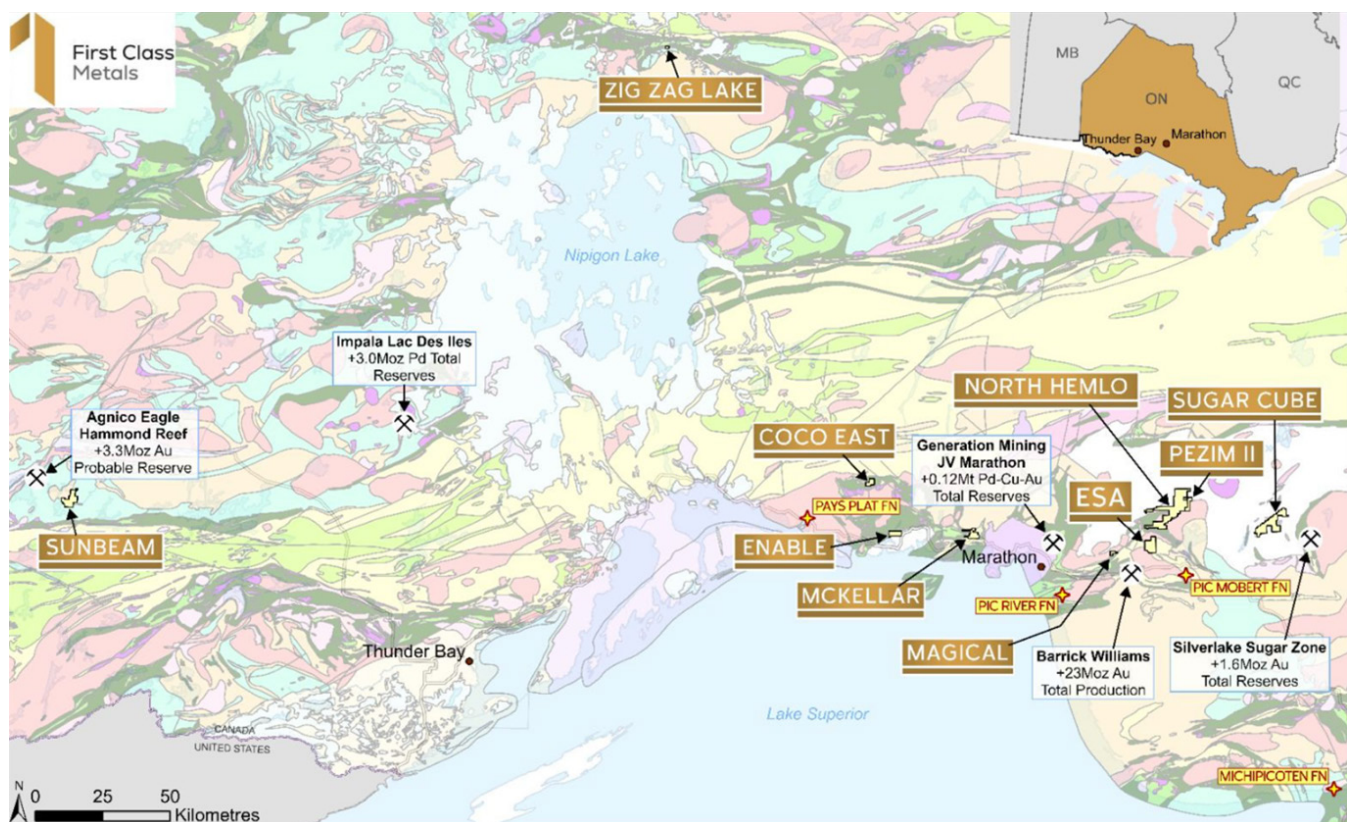
There's **North Hemlo**, where we're uncovering increasing precious and base metal potential by way of our West Pickle Lake JV and Dead Otter Lake trend....

**Esa**, where more and more signs are pointing to the presence of a mineralised shear mirroring those responsible for Barrick Gold's world-class Hemlo gold mine...

**Sunbeam**, where we're following in our forebearers' footsteps by examining a historical gold mine and the surrounding area through a modern exploration technology lens...

And finally, **Zigzag**, where we're building upon positive early indicators of prospectivity for both lithium and tantalum.

## First Class Metals' project portfolio



Our goal is to advance our understanding of each by as much as possible to maximise our chances of drilling success. That's how we will generate value for our shareholders.

With this in mind, let's take a look at the projects in more detail...

# Building Barrick-style potential north of Hemlo

Two of the four projects we're advancing to drill-ready status are based in Ontario's Hemlo-Schreiber greenstone belt.

This region is renowned in the mining community for hosting Barrick's Hemlo mine, which has produced more than 21Moz of gold over three decades and remains active to this day.

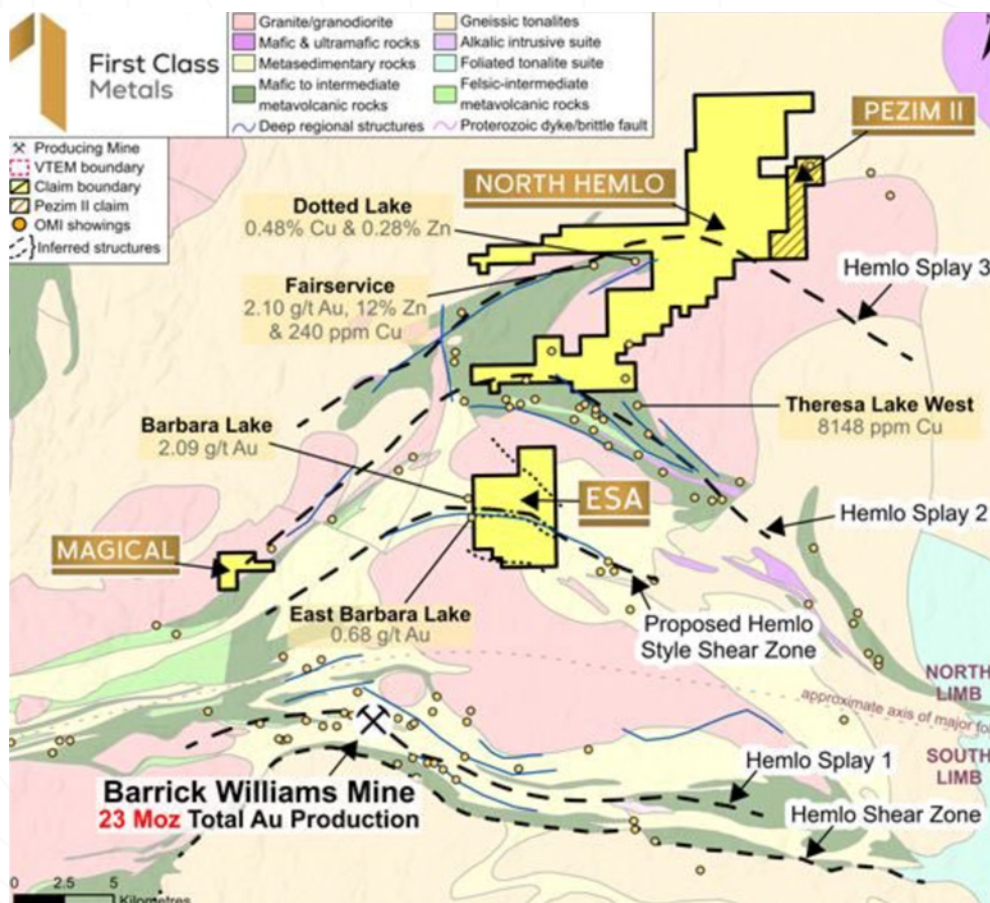
However, where such a proven area would typically host several

additional >1Moz satellite deposits... Hemlo-Schreiber is still relatively underexplored.

We've very much taken advantage of this by acquiring the **North Hemlo** and **Esa** projects in the area.

You see, the pair cover three overlooked mineralised trends mirroring the shear zones responsible for the mineralisation at Barrick's project to the south. And so far, our work at both is suggesting these trends could also offer very significant mineral potential...

## Regional map of the North Hemlo and Esa projects



# 1. North Hemlo

Our **North Hemlo** project extends across 90km<sup>2</sup>, the vast majority of which we wholly-own and operate.

The project's fundamental potential is underpinned by the presence of two Hemlo lookalike shears. However, we've now built on this considerably by completing a deep review of data taken from limited historical exploration across the property.

Specifically, the work has identified a number of gold and base metal showings that we and our partners have developed.

Take West Pickle Lake, for example.

This showing was located within a package of 33 claims to the east of our North Hemlo property, which we hold alongside Palladium One.

Through VTEM, sampling, and extensive drilling, our partner has confirmed a large, previously-undiscovered, high-grade nickel-copper sulphide zone around the showing.

As the strike length of this zone grows with each round of drilling Palladium One completes (it now spans more than 600m and is open in all directions)...

So too does the potential for it to cross onto our neighbouring, 100%-owned claims to the west.

With the zone already boasting grades of up to 12.8% nickel and 2.5% copper, the potential value of "crossing the threshold" like this could be huge.

## BUILDING BARRICK-STYLE POTENTIAL NORTH OF HEMLO

Another notable showing is Dead Otter Lake, which sits on our 100%-owned claims and boasts grades of up to 3.1g/t gold and 0.59% molybdenum.

Through extensive magnetic surveying and sampling, we recently identified a mineralised trend running for more than 3km to the southeast of the showing.

Our work also identified other potentially prospective features around the showing that requiring further exploration. This includes one grab sample of 19.6g/t gold – that's among the highest grades ever recorded over the entire Hemlo North limb.

As with West Pickle Lake, we are extremely excited to learn more about Dead Otter Lake's true potential.

### Core from West Pickle Lake



## 2. Esa

Moving to the immediate south, and our **Esa** property covers around 20.6km<sup>2</sup> just 11km to the northeast of the Hemlo gold mine.

Critically, as well as being geographically close to Barrick's project, we believe it shares a very similar geological setting.

You see, Esa sits between two "plutons" – intrusions that can drive mineral-rich fluids into trap sites, sometimes resulting in the accumulation of economic mineralisation.

It is *also* dissected by one of the three Hemlo-style mineralised structures we mentioned before. This has already been confirmed to the property's immediate east and west.

Our working theory is that this structure is a Hemlo-style shear zone, with all of our work to date adding considerable weight to this potential:

- Ground exploration identified sheared metasedimentary/mafic volcanic boulders anomalous in trace elements in the area interpreted to contain the shear zone;
- Ground reconnaissance identified a Hemlo look-a-like rock in the form of an angular boulder that returned anomalous gold; and
- Reinterpretation of VTEM data over ESA by Paterson Grant and Watson concluded that:
  - 1) The proposed shear zone trends 5km to the west and 4.5km to the east where it coincides with reported anomalous gold values
  - 2) Mineralisation within Esa appears closely related to a series of N-S trending magnetic anomalies
  - 3) Esa's generic model is considered similar to the Hemlo gold deposit

## **BUILDING BARRICK-STYLE POTENTIAL NORTH OF HEMLO**

This is all encouraging.

However, the greatest endorsement of Esa's gold potential of all came in May with the results of our extensive 2022 soil sampling programme.

The work highlighted an intermittent 4km anomalous zone corresponding to the surface expression of the inferred shear. It also identified multiple occurrences of gold and key pathfinder elements along with anomalous trends highlighting NE structures intersecting the shear.

All told, the results build a clear picture of potential gold mineralisation associated with robust structures.

In our book, that's a strong vote of confidence in our shear zone theory.

### Esa sample







## Next steps north of Hemlo

Now we've made strong progress at both of these projects...*how do we go on and take them towards drill-ready status?*

Well, at **North Hemlo**, we will complete further work including reconnaissance and detailed sampling to:

- Define the Dead Otter Lake trend and potential subparallel structures highlighted in samples;
- Examine the potential extension of West Pickle Lake onto our 100%-owned claims; and
- Look into other areas with potentially mineralised structures identified by our magnetic survey

Meanwhile, our goal now at Esa is to build on the success of our sampling programme and learn more about the project's true potential. Specifically:

- More soil samples are planned to better define the potential of the structures intersecting the shear to contain and/or affect mineralisation; and
- Further geological mapping and prospecting along the shear will take place to aid in the delineation of priority targets.

Of course, the mutual goal at both is for the work we're completing is to generate drill targets for a subsequent campaign.

With this in mind, we've prepared an exploration permit application for both that – if approved – will enable us to get the bit turning when we're ready.

# Exploring for **gold** in the shadow of a headframe

**C**overing around 43km<sup>2</sup>, the Sunbeam project represents a somewhat different style of exploration opportunity to **North Hemlo** and **Esa**.

Where the onus is on us to uncover the presence of mineralisation at these properties on the basis of a growing bank of positive geological indicators...

We actually already know that there's a lot of mineralisation at Sunbeam.

Enough, in fact, that the project area played host to a high-grade gold mine for six years from 1898.

It was shuttered in 1905 in the face of falling gold prices and was left untouched for more than a century due to the presence of a long-term lease.

And while this was unfortunate for all of the explorers who would have like to have picked up where the original miners left off during this period...

**It's very good news for us today.**

You see, that lease lapsed several years ago, opening the door for a modern-day investigation of Sunbeam. After all, it's entirely possible that the miners only scratched the surface of the historical mine's true potential.

With the added benefit of more than 100 years of development in exploration technology, that potential is now much easier to investigate. Especially with Sunbeam now being surrounded by a wealth of infrastructure and proven gold deposits.

The success of projects like Fosterville in Victoria is evidence enough of how much profit can be turned when old mines are revisited for the first time in more than a century.

The first company to seize the Sunbeam opportunity was Nuinsco.

It produced grades of up to 83.5g/t from surface sampling in the mine area. Then, it returned grades of up to 93.3g/t within zones of strong deformation by drilling along strike and down dip of known gold mineralisation.



## EXPLORING FOR GOLD IN THE SHADOW OF A HEADFRAME

This was certainly encouraging, suggesting high grade gold could continue well beyond the confines of the historical mine area.

So, we were very keen to look at acquiring the project from Nuinsco, which we did last year.

Once the deal completed, we immediately started to build on the explorer's work.

We were quickly granted an exploration permit for the area that

enables us to drill across the entire land package. We also completed a thorough review of historical data on the project.

Now, we have two teams on the ground pursuing two separate opportunities...

One is focused on the sampling and surveying needed to prepare the historical mine for drilling. This will enable us to investigate the true depth and width of mineralisation.



## EXPLORING FOR GOLD IN THE SHADOW OF A HEADFRAME



CEO Marc at the  
Pettigrew trend

The other is focused on the opportunity on offer across the wider Sunbeam project area.

You see, our historical data review identified promising early signs of prospectivity across the entire 48km<sup>2</sup> block we now control. Namely, the area is home to 30km of mineralised trend representing 15km of target domain within which gold mineralisation occurs in quartz-veining.

We know this, because of several gold showings, including:

- Pettigrew (where historical drilling returned highlight intersections of 19.4g/t over 0.63m and 15.17g/t over 1.37m in two zones);
- Roy, which is projected to sit on a sub-parallel mineralisation trend within an identified strike of more than 10km; and
- A number of additional gold occurrences associated within regional structural trends. These include Rubble, where assays of up to 1.42oz per ton gold were obtained from pyritized and iron carbonate altered rocks.

All told, we believe this could be an excellent district-scale opportunity. But we'll only know if this is the case through drilling.

That's why our geologists have been on site since early May working the trends, mapping, sampling, and prospecting with our CEO Marc Sale now onsite directing operations.

# Getting to **work** at Zigzag

**A**t North Hemlo, Esa, and Sunbeam, we are focused heavily on exploring for gold.

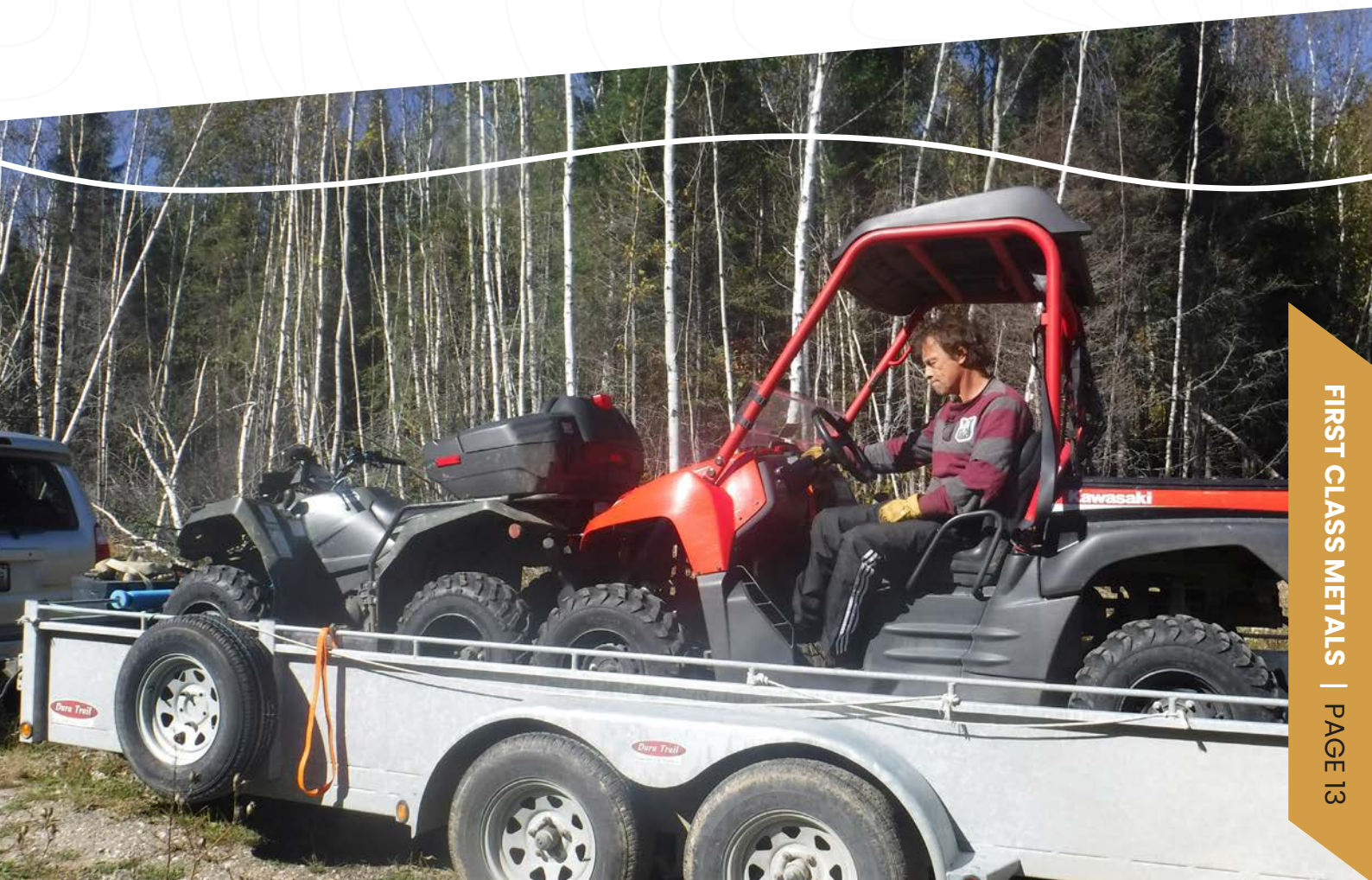
However, at the fourth project we're now focused on taking to drill-ready status, we're searching two entirely different metals:

## Lithium and tantalum

There's a good reason for this; both are expected to enjoy a combination of soaring demand and limited supply over the coming years.

That's a recipe for a structural bull market and, as a result, soaring demand for new sources of metal.

In the case of lithium, this is being driven primarily by the growing popularity of electric vehicles ("EVs"), the majority of which are powered by lithium-ion batteries. Due to historical underinvestment in the lithium supply chain, it's anticipated that the output of today's pipeline of projects is at serious risk of falling short of this anticipated demand.



## GETTING TO WORK AT ZIGZAG

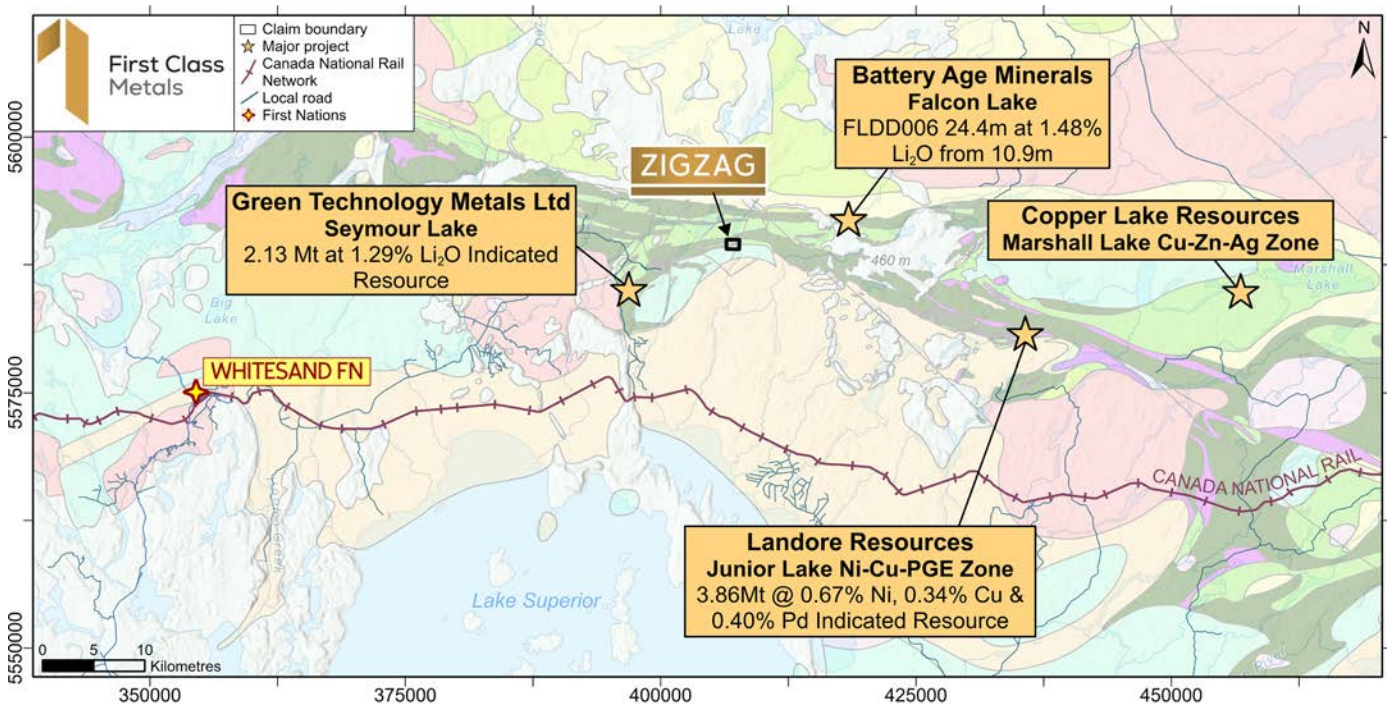
Meanwhile, tantalum is set to enjoy demand growth in the face of an expected rise in the use of capacitors – driven not just by EVs but also from the defence and telecoms sectors. Again, however, historical under-investment means that Roskil expects supplies of 3,214ts a year by 2030 to fall well short of forecasted demand of 3,595ts.

The good news is that Zigzag has the potential to help in the quest to plug anticipated reserves deficits across both markets.

Spanning 1.2km<sup>2</sup>, the project covers what is known as the *Tebishogeshik* occurrence

This is a lithium occurrence hosted within a pegmatite known to be 800m long and up to 18m thick, but open in all directions. Pegmatites are highly promising for lithium exploration due to their unique geological formation, which often results in high concentrations of minerals rich in the metal.

## Proven projects in the same neighbourhood as Zigzag



In fact, historical surface samples have identified both lithium dioxide and tantalum mineralisation along the entire length of the pegmatite. These have graded up to 1.68% over 7.9m and 0.168% over 2.54m respectively.

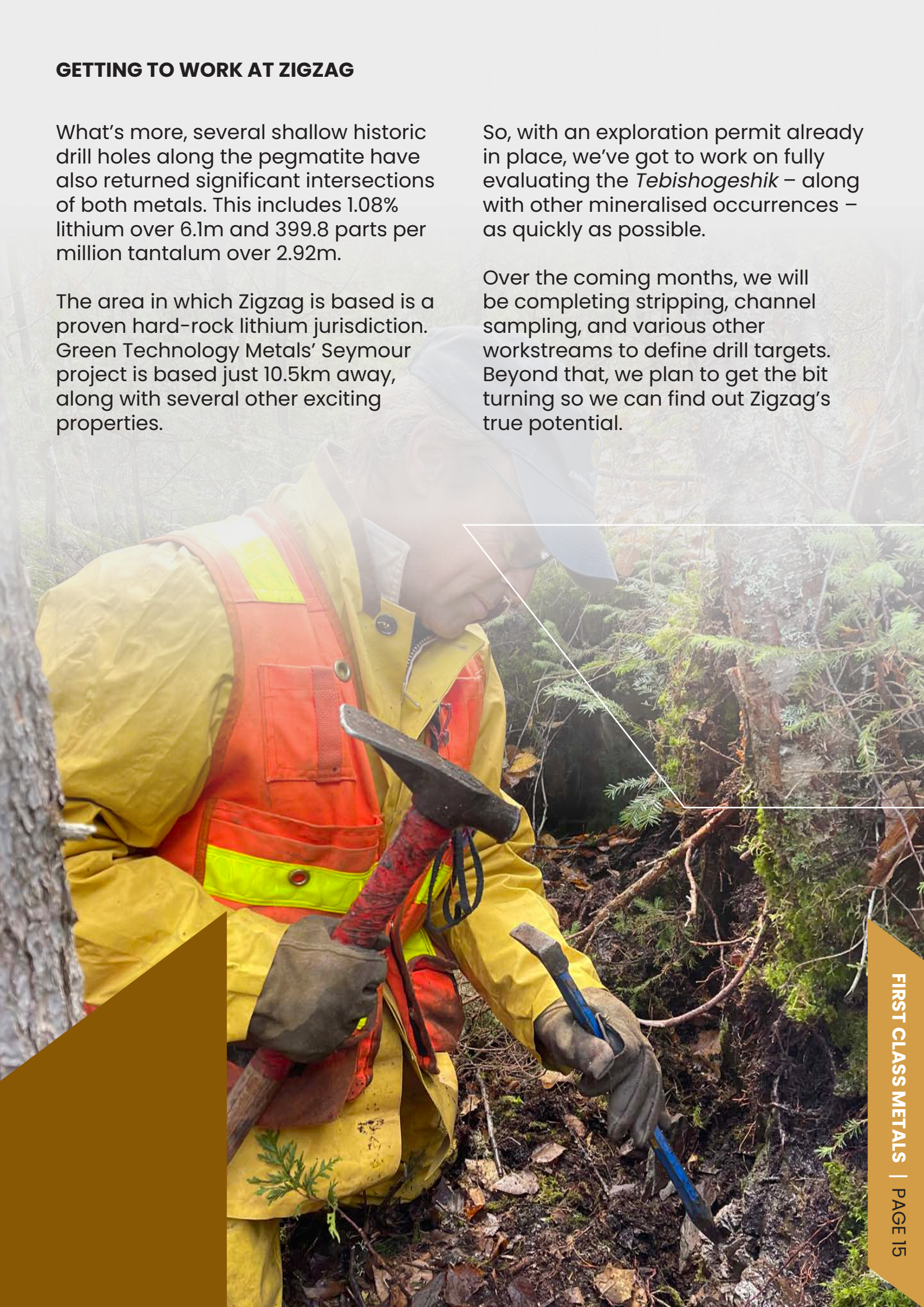
## GETTING TO WORK AT ZIGZAG

What's more, several shallow historic drill holes along the pegmatite have also returned significant intersections of both metals. This includes 1.08% lithium over 6.1m and 399.8 parts per million tantalum over 2.92m.

The area in which Zigzag is based is a proven hard-rock lithium jurisdiction. Green Technology Metals' Seymour project is based just 10.5km away, along with several other exciting properties.

So, with an exploration permit already in place, we've got to work on fully evaluating the *Tebishogeshik* – along with other mineralised occurrences – as quickly as possible.

Over the coming months, we will be completing stripping, channel sampling, and various other workstreams to define drill targets. Beyond that, we plan to get the bit turning so we can find out Zigzag's true potential.



# Tapping into **major** value with drilling

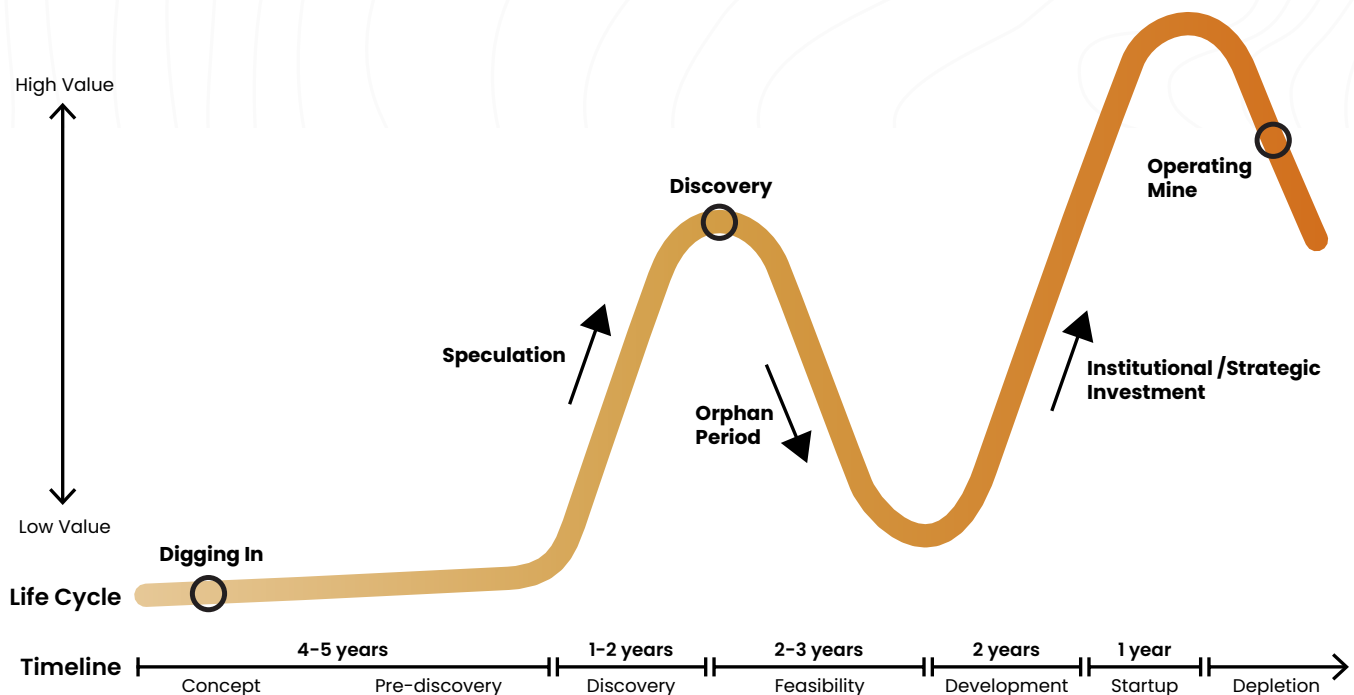
Take a look at the diagram below. It shows what is known as the “*Lassonde Curve*” – a popular way of visualising value creation throughout the lifecycle of a mineral discovery.

As you can see, a project tends to become somewhat more valuable in the face of encouraging results during the concept and pre-discovery stages.

This is where we currently are at all four of our flagship projects – **North Hemlo, Esa, Sunbeam, and Zigzag**. And really, you can already see this uplift reflected in the performance of our shares during our first year on the market.

However, it’s during the speculation and discovery phases where the *real* value is unlocked.

## The Lifecycle of a Mineral Discovery





## TAPPING INTO MAJOR VALUE WITH DRILLING

The catalyst for this is drilling. After all, this what provides the insight into what truly lays beneath the surface and can ultimately lead to the definition of a mineable deposit.

That's why we're so focused on getting to this stage.

We don't know what we'll find.

What we do know, however, is that, by doing as much preparation as

possible, and by diversifying our efforts across four projects rather than one...

We're given ourselves as great a chance of unlocking that value for our shareholders across one or more discoveries.

With this in mind, we look forward to continuing to update our investors on our progress over the coming months.





# First Class Metals

[www.firstclassmetalsplc.com](http://www.firstclassmetalsplc.com)