



ASX Release: 30 August 2022

## Annual General Meeting Presentation

IRIS Metals Limited (“IRIS” or the “Company”) (ASX:IR1) is pleased to provide the following presentation, being delivered at the conclusion of today’s Annual General Meeting:

- Presentation: Black Hills Lithium Project.

**This release is approved by the Board of IRIS Metals Limited.**

### **About IRIS Metals Limited:**

IRIS Metals (ASX:IR1) is an Australian-based explorer with an extensive suite of assets prospective for gold, nickel and lithium in Western Australia and South Dakota, USA. Its wholly-owned WA tenement portfolio includes a compelling landholding in central Kookynie - a gold camp renowned for its historical high grade gold production and bonanza gold grades, and strategic tenure in the highly prospective Tier-1 mining jurisdiction of Leonora. The hard rock lithium South Dakota Project provides the Company and its shareholders with exposure to the battery metals space in a mining friendly jurisdiction with a history of past production. IRIS is pursuing a strategy of rapid prospect evaluation in recognised mineral fields, with a view to making economic discoveries, thereby enhancing shareholder value.

### **Forward looking Statements:**

This announcement may contain certain forward-looking statements that have been based on current expectations about future acts, events and circumstances. These forward-looking statements are, however, subject to risks, uncertainties and assumptions that could cause those acts, events and circumstances to differ materially from the expectations described in such forward-looking statements. These factors include, among other things, commercial and other risks associated with exploration, estimation of resources, the meeting of objectives and other investment considerations, as well as other matters not yet known to IRIS Metals or not currently considered material by the company. IRIS Metals accepts no responsibility to update any person regarding any error or omission or change in the information in this presentation or any other information made available to a person or any obligation to furnish the person with further information.

### **Competent Persons Statement:**

The information in this announcement that relates to exploration results is based on information reviewed by Chris Connell a Competent Person who is a member of Australian Institute of Geologists and a Non-Executive Director to IRIS Metals Limited. Chris Connell is an exploration geologist with over 25 years’ experience in gold and base metal exploration including gold exploration and resource definition in the Eastern Goldfields and has sufficient experience in the styles of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Chris Connell has consented to the inclusion in this Public Report of the matters based on his information in the form and context in which it appears.

#### **Directors**

Simon Lill, Non-Executive Chairman  
Tal Paneth, Executive Director  
Peter Marks, Executive Director  
Chris Connell, Executive Director  
David Franks, Company Secretary

#### **Consultants**

Levi Mochkin, BDM  
(Ledger Holdings P/L)  
  
Jason Ward, Technical

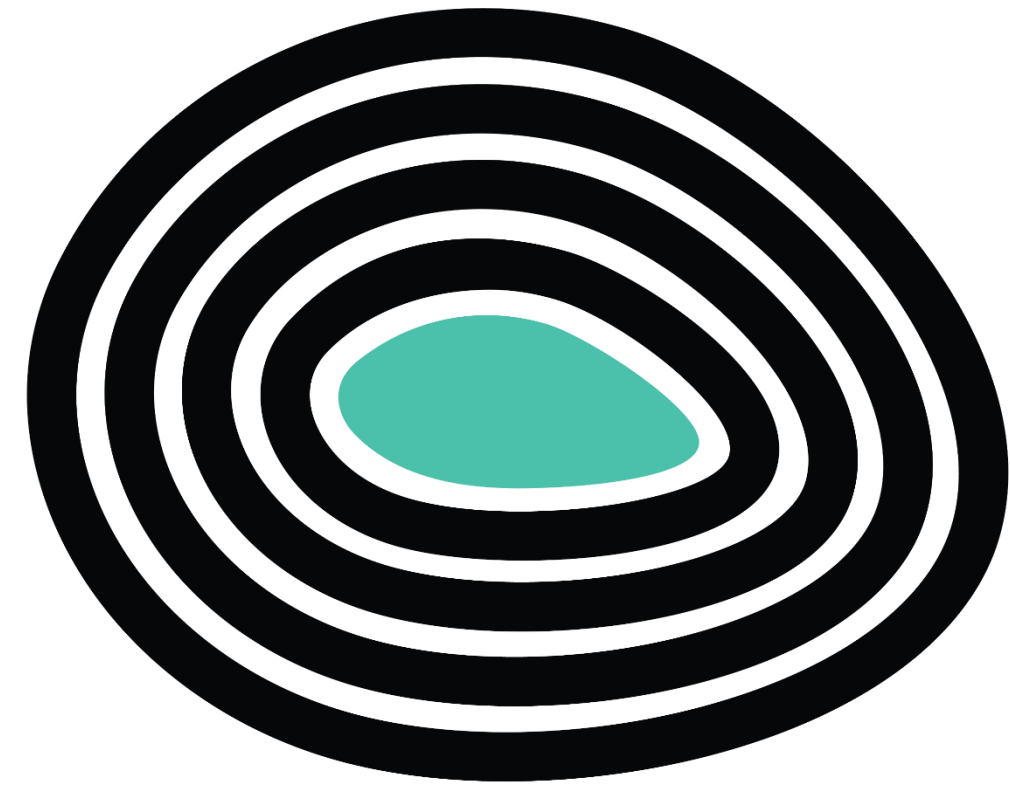
#### **IRIS Metals Limited ASX: IR1**

**Registered Office**  
Level 6, 400 Collins Street  
MELBOURNE VIC 3000

#### **Contact Details**

[admin@irismetals.com](mailto:admin@irismetals.com)  
[www.irismetals.com](http://www.irismetals.com)  
ABN  
61 646 787 135



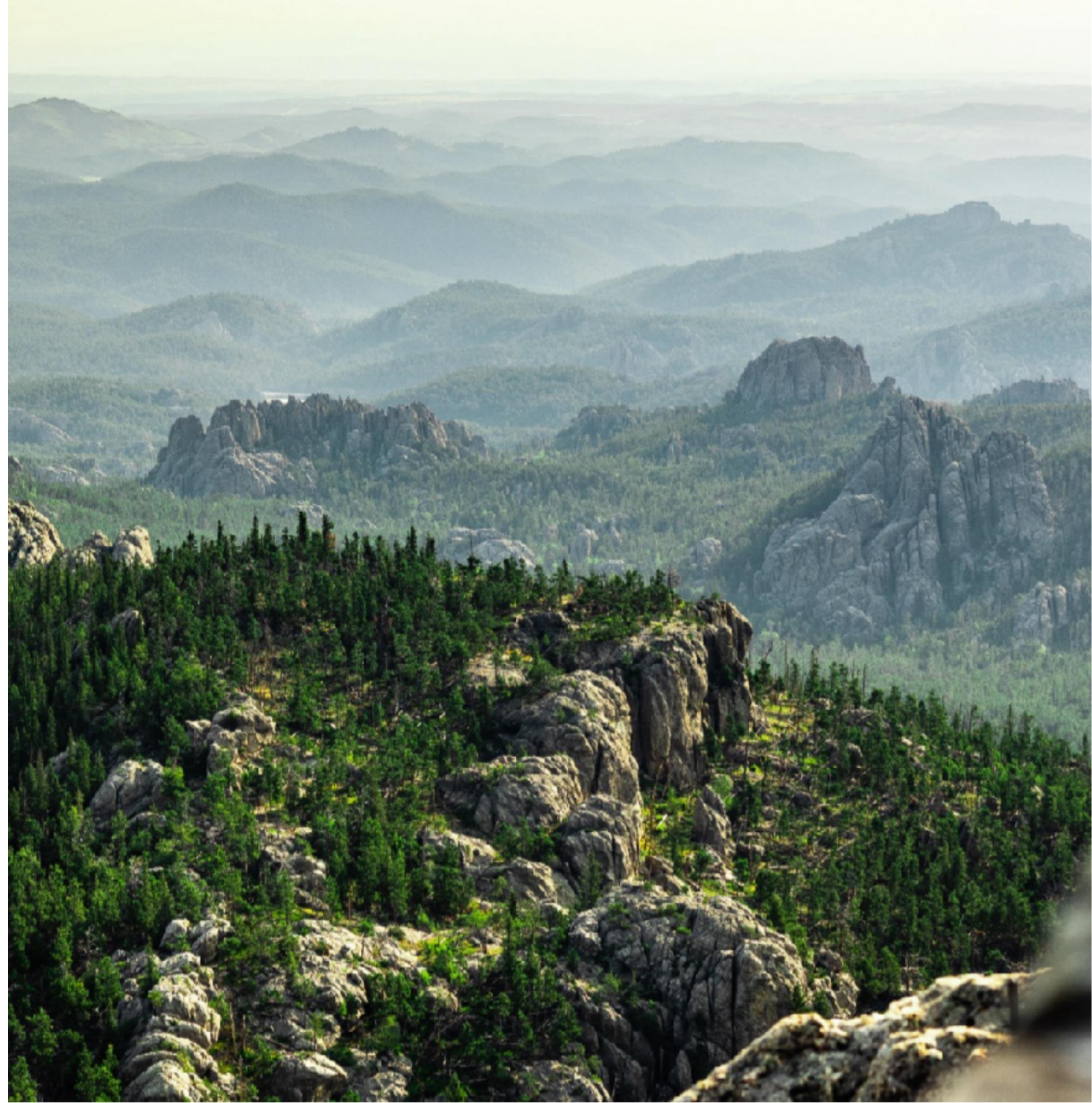


IRIS METALS

---

**BLACK HILLS LITHIUM  
PROJECT SOUTH  
DAKOTA**

30 August 2022





# DISCLOSURES

---



The purpose of this presentation is to provide background information to assist readers in obtaining a general understanding of the Company's proposals and objectives. It is not and should not be considered as an offer or invitation to apply for or purchase any securities of the Company or as a recommendation or inducement to make an offer or invitation in respect of securities in the Company.

This presentation is not a disclosure document under Australian law or under any other law. Accordingly, this presentation neither purports to be exhaustive nor contain all of the information which any reader or prospective investor may require to make an investment decision and it does not contain all of the information which would otherwise be required by Australian law or any other law to be disclosed in a prospectus.

The information in this presentation is not intended to form the basis of any investment decision in relation to the Company or its assets and should not be considered as a recommendation to the recipient to invest or acquire the Company's assets. Readers must not rely on this presentation but make their own independent assessment and seek and rely upon their own independent taxation, legal, financial or other professional advice. This presentation is not intended to constitute financial product advice and does not take into account individual or group investment objectives, taxation situation, financial situation or needs.

The information in this presentation, which is selective and does not purport to contain all the information that the recipient may require to evaluate the opportunity, has not been independently verified. No representation or warranty, expressed or implied, is or will be made, and no responsibility or liability is or will be accepted by the Company, any of their respective officers, servants, agents or advisers as to or in relation to the accuracy, reasonableness, completeness or reliability of this presentation or any other written or oral information made available to any recipients of this presentation or their advisers.

Various statements in this presentation constitute statements relating to intentions, future acts and events ("Forward Looking Statements"). Forward Looking Statements involve subjective judgment and analysis, known and unknown risks, uncertainties and other important factors that cause those future acts, events and circumstances to differ from the way or manner in which they are expressly or impliedly portrayed herein. No representation, warranty or guarantee, express or implied, is given that any Forward Looking Statements (including those relating to any potential initial public offering) will be achieved or proven correct, or that any assumptions or projections on which the Forward Looking Statements are based are reasonable. No historical financial information, estimates or projections contained in this presentation or any other financial information derived from that information, can be relied upon as a promise or representation, as to the past, present or the future.

The Company is not bound by any statement of intention contained in this presentation to then undertake the proposed activity, including any statement relating to the potential conduct an initial public offering by the Company.

Readers should make their own independent assessment of the information and take their own independent professional advice in relation to the information and any proposed action to be taken on the basis of the information. To the maximum extent permitted by law, the Company and its professional advisors and their related bodies corporate, affiliates and each of their respective directors, officers, partners, employees, advisers and agents and any other person involved in the preparation of this presentation disclaim all liability and responsibility (including without limitation any liability arising from fault or negligence) for any direct or indirect loss or damage which may arise or be suffered through use of or reliance on anything contained in, or omitted from, this presentation.

Neither the Company nor its advisors have any responsibility or obligation to inform the reader of any matter arising or coming to their notice after the date of this presentation document, which may affect any matter referred to in the presentation.



**Largest controller** of known pegmatites in the **Black Hills** in mining friendly jurisdiction of **South Dakota**.



Well positioned to achieve **significant lithium discoveries** across **regional scale** land position.



**Highly experienced** geological and management and consulting team.



**Strong short, medium and long-term outlook** for lithium and strategic battery metals.



Location and **proximity** to end customers, manufacturers and gigafactories.



Recent invoking of the **Defence Production Act** and **Inflation Reduction Act** significant for **US-based** lithium explorers.



# THE RIGHT DIRECTION

---

## RIGHT LOCATION

South Dakota is a **Tier-1 jurisdiction** in a Tier-1 country with a **145-year history** of continuous mining.

South Dakota close in **proximity** to US-based end customers, manufacturers and gigafactories.

1 of only 2 US-based ASX-listed hard rock lithium explorers (other is **\$1.5+Bn market cap** Piedmont Lithium Inc (ASX:PLL).

Worlds main lithium producing district for significant part of the last century with **over 24,000 pegmatite bodies** in the entire Blackhills district.

## RIGHT PROJECT

**Dominant & controlling interest** in Black Hills region.

Expansion of tenure via staking activities currently in progress.

**Control of historic pegmatite mines** known to host lithium are located on tenure.

**Highly prospective brownfield tenure** with an abundance of outcropping pegmatite swarms.

Among **the largest Spodumene Crystals** on record have been found in the Black Hills.

## RIGHT COMMODITY

Lithium is a critical, strategic and essential metal - crucial to EV and energy storage sectors.

Record prices for Lithium Carbonate and Lithium Hydroxide.

Lithium is in short supply predominantly due to resource requirements by the EV industry.

Countries/Companies globally are seeking additional sources of lithium supply to be less reliant on China.

## RIGHT TIMING

Invoking of **Defense Production Act** encourages domestic production of minerals required to make batteries for electric vehicles and long-term energy storage.

Invoking of the **Inflation Reduction Act** provides significant US-based EV incentives.

With exploration success, IRIS is strategically positioned to become a leading **supplier of lithium into the US energy revolution.**

## RIGHT COMPANY

**Experienced directors,** management and key personnel required to extract maximum value for shareholders.

Management, personnel and advisers with a track record of **creating \$1+bn market cap companies.**

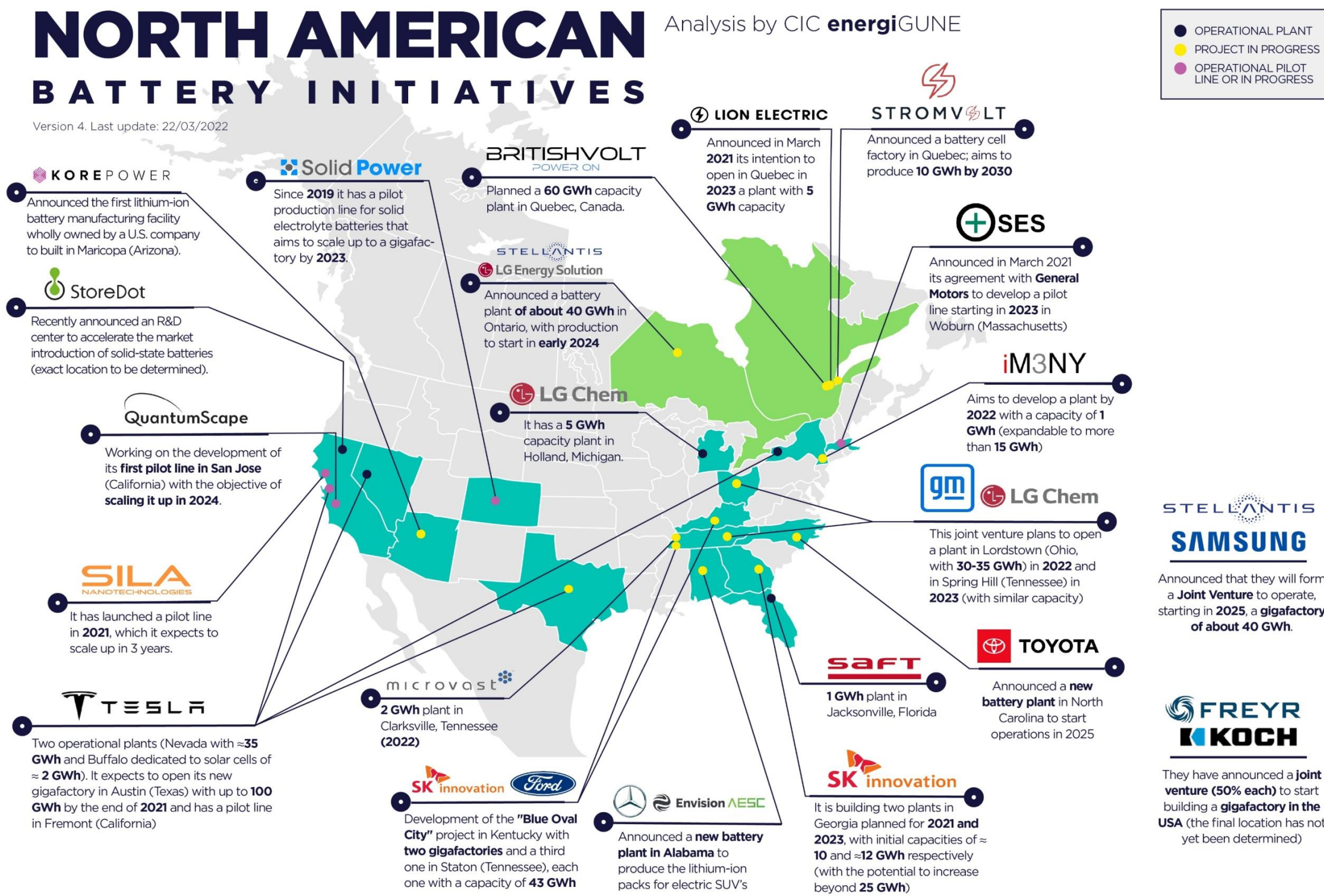
All key personnel with a significant equity holding – **perfect alignment of interests** of shareholders and management.



## NORTH AMERICAN BATTERY INITIATIVES

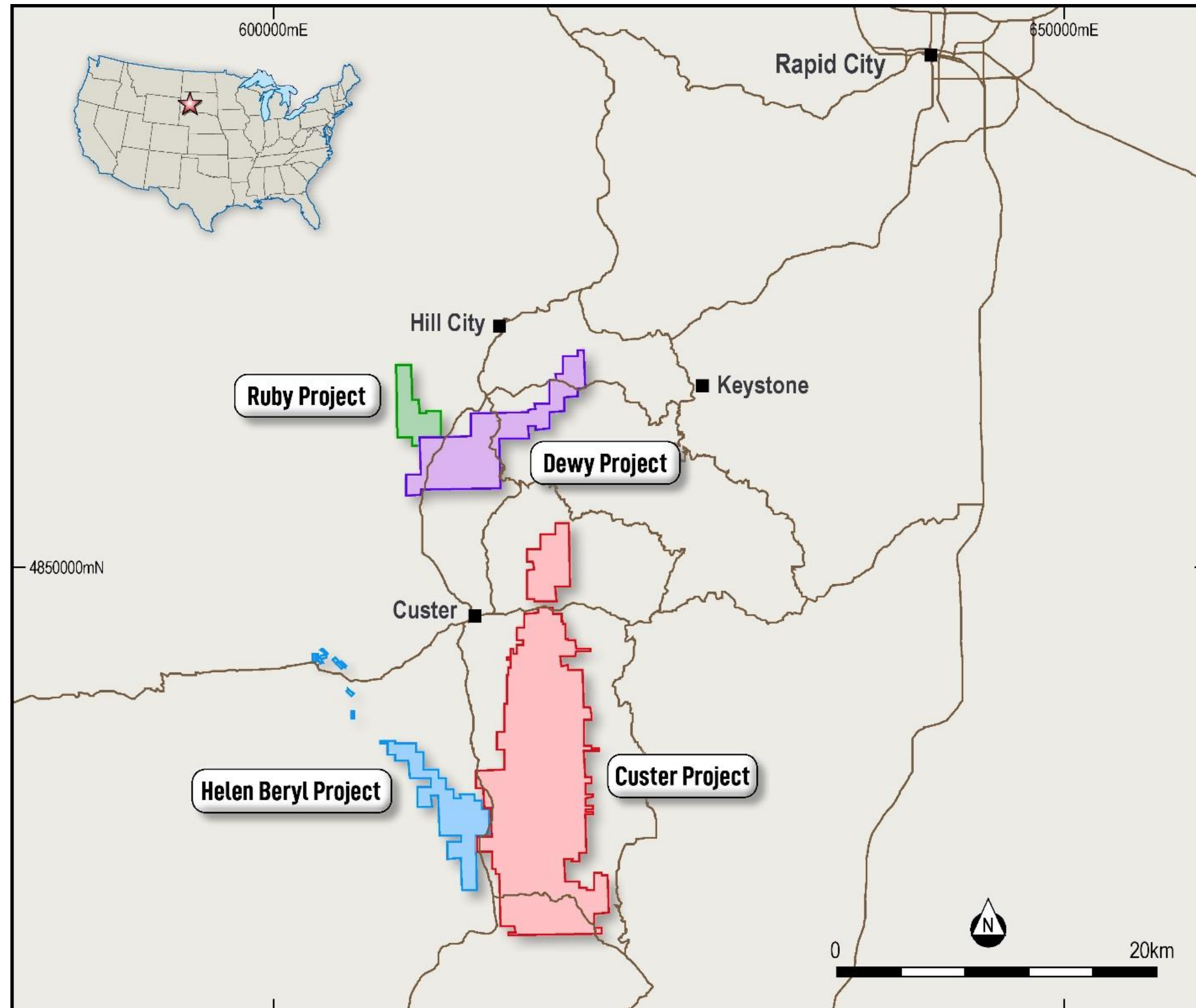
Analysis by CIC **energiGUNE**

Version 4. Last update: 22/03/2022



- Currently all brine sourced lithium has to be first processed to a lithium carbonate, which must be sent to China for conversion into lithium hydroxide.
- Hard rock lithium spodumene is the only material that can be converted straight to hydroxide.
- IRIS project in close proximity to US-based end customers, manufacturers and gigafactories.
- IRIS is now only the 2nd US-based ASX-listed hard rock lithium explorer, following \$1.5+Bn market cap Piedmont Lithium Inc (ASX:PLL).
- The US is looking to establish itself as a market leader in the rapidly evolving gigafactory industry.
- The US subcontinent has not wasted any time in the last 12 months accelerating its plans for the development of large gigafactories, with investment by leading local OEM's being the driving force.
- Most recently, GM and Ford have been the main drivers of growth.





- IRIS' **South Dakota Project** currently comprises the highly prospective and strategic **Custer, Dewy, Ruby and Helen Beryl Project's**.
- IRIS controls the largest number of Li claims in the Black Hills with combined total land holdings of approximately **42,287 acres, across 2,056 Lode Claims**.
- Based on a review of regional geology, additional areas of interest have been identified with **staking activities currently continuing**.
- **Abundant outcropping LCT pegmatite swarms**.
- **First-mover advantage** in area of potential regional scale in **mining friendly jurisdiction**.
- **Black Hills** of South Dakota famous for **historic lithium mining** dating back to 1898 when Li-bearing spodumene (contains up to 8% Li<sub>2</sub>O), and amblygonite (contains up to 10% Li<sub>2</sub>O) were first mined.
- The **largest known lithium spodumene crystals in the world have been found in the Black Hills**.



# PROJECT AREA 1: CUSTER PROJECT



- Consists of **1,380 BLM Lode Claims** over an area of approximately **28,318 acres**.
- LCT-pegmatites occur in a north-south corridor and **contain many historic lithium mines**.
- The **Custer Mountain Mine** has been mined for feldspar and beryl with mapping of the mine in 1945 by the United States Geological Survey describing “pegmatite zones rich in spodumene, amblygonite and lepidolite”. Spodumene crystals were documented up to 1.5m long and 0.5m thick.
- The **Climax Mine** was one of the largest producers of mica in the Black Hills and has been intermittently operated since 1880. The pegmatite contains zones rich in lithium bearing minerals amblygonite and lithiophilite-triphyllite.



Figure 1: The Custer Mountain open cut mine.



Figure 2: The Elkhorn open cut mine

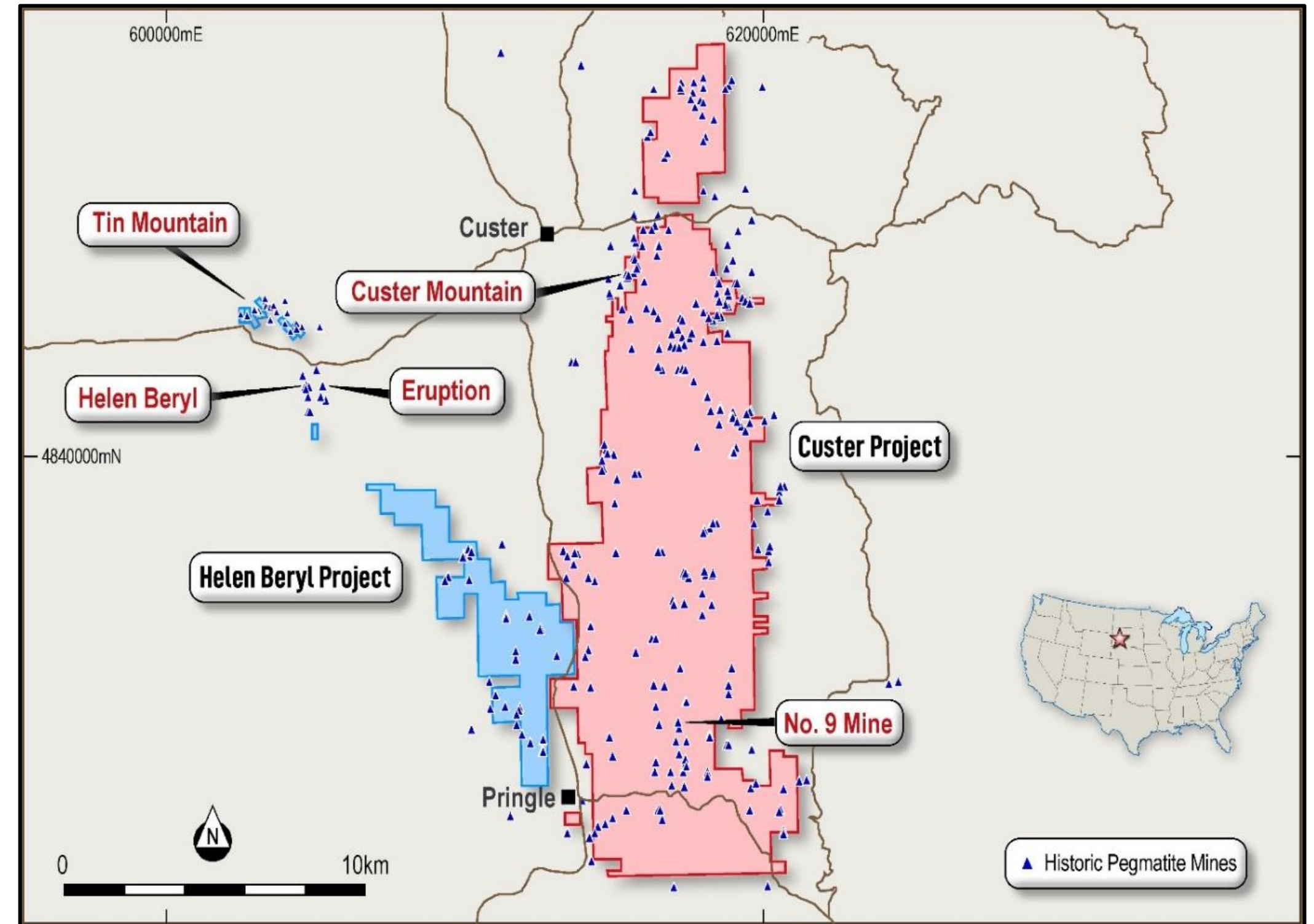


Figure 3: Map showing the Custer Project highlighting the historical pegmatite mines.





- Consists of **358 BLM Lode Claims** over an area of approximately **7,401 acres**.
- LCT-pegmatites occurring in **numerous discontinuous swarms** represented **along strike to many historic lithium mines**.
- The **High Climb pegmatite** was mined for amblygonite, beryl, mica and feldspar (spodumene was left in situ or on waste dumps). The pegmatite is **exposed for over 100m at surface with the open cut mine cutting across the 30m width of the pegmatite**.
- The **Hunter and Louise Mine** is composed of 6 small open cut pits primarily mined for mica and spodumene. The **mineralised pegmatite is exposed at surface for over 200m with varying widths averaging 10m**.
- The **Tin Queen Mine**, comprising of three open cut pits, initially targeting tin, with later production focusing primarily on mica with amblygonite and beryl. Other lithium minerals identified at the Tin Queen mine include spodumene and lithiophilite-triphyllite.



Figure 1: Spodumene Crystals at Hunter and Louise



Figure 2: High Climb Open Cut Mine

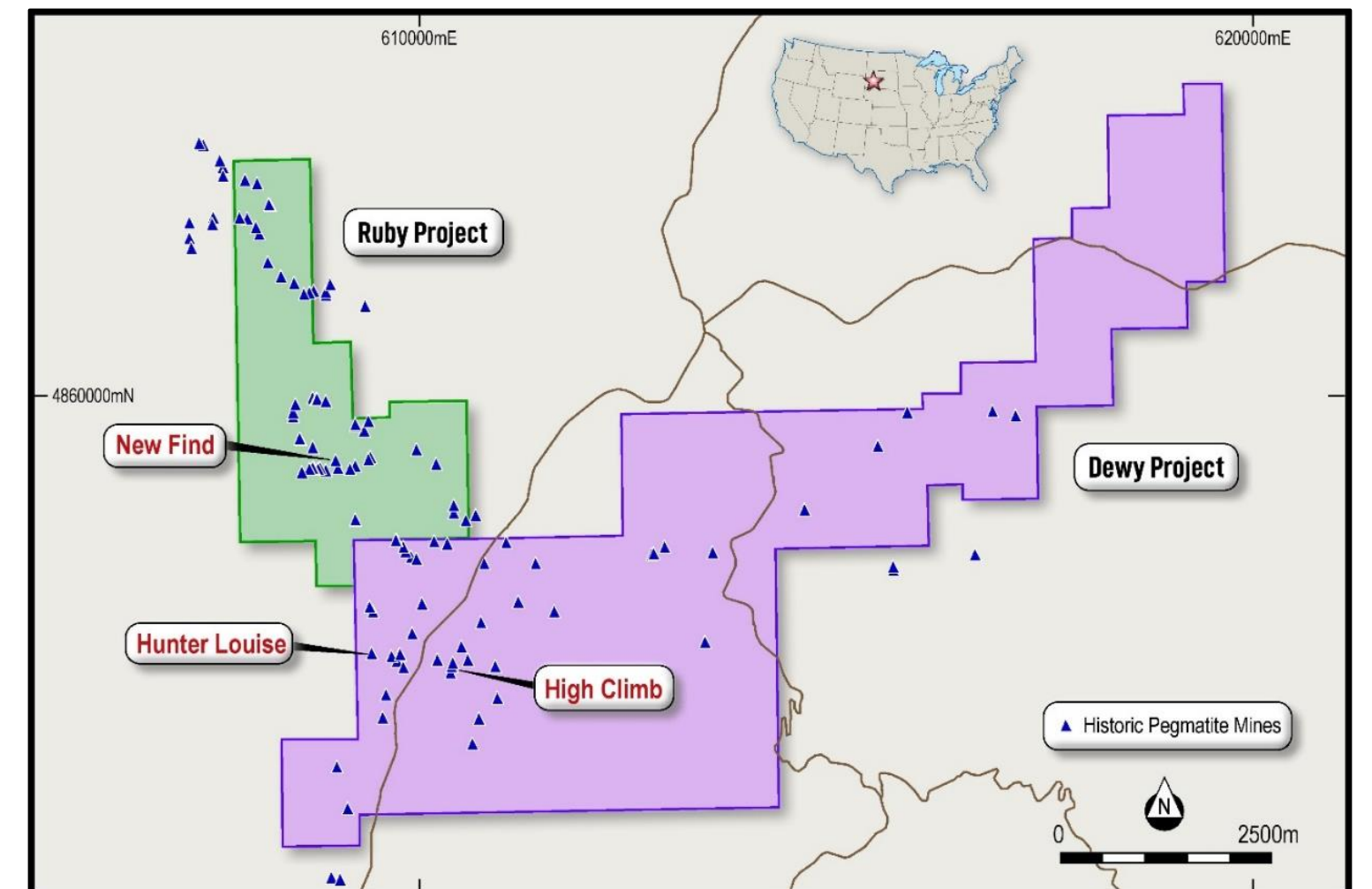


Figure 3: Map showing the Dewy Project highlighting the historical pegmatite mines.



# PROJECT AREA 3: HELEN BERYL PROJECT



- Consists of **226 BLM Lode Claims** over an area of approximately **4,665 acres**.
- LCT-pegmatites occurring in numerous discontinuous swarms trending north-south.
- Included in the IRIS Helen Beryl Project are the **historic Helen Beryl Mine** (famous for having a zone of extremely highly concentrated spodumene) and the **Eruption Lode** (known for its high concentration of spodumene).
- IRIS was able to secure claims over both these mines that represent **high priority early drill targets**.

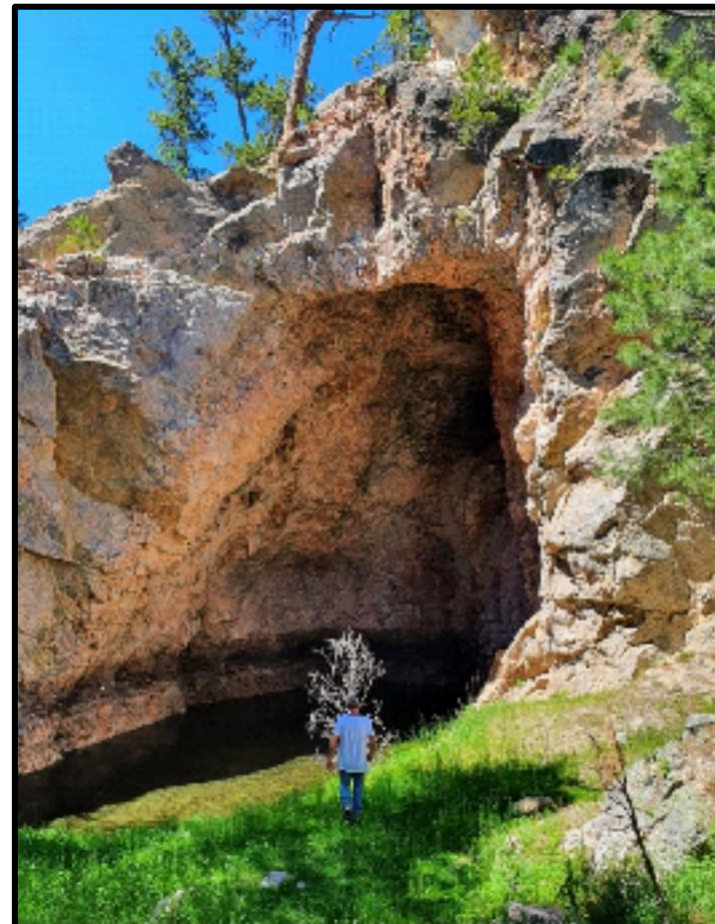


Figure 1: Helen Beryl Lithium Mine.



Figure 2: Spodumene rich Ore from the Helen Beryl Mine.

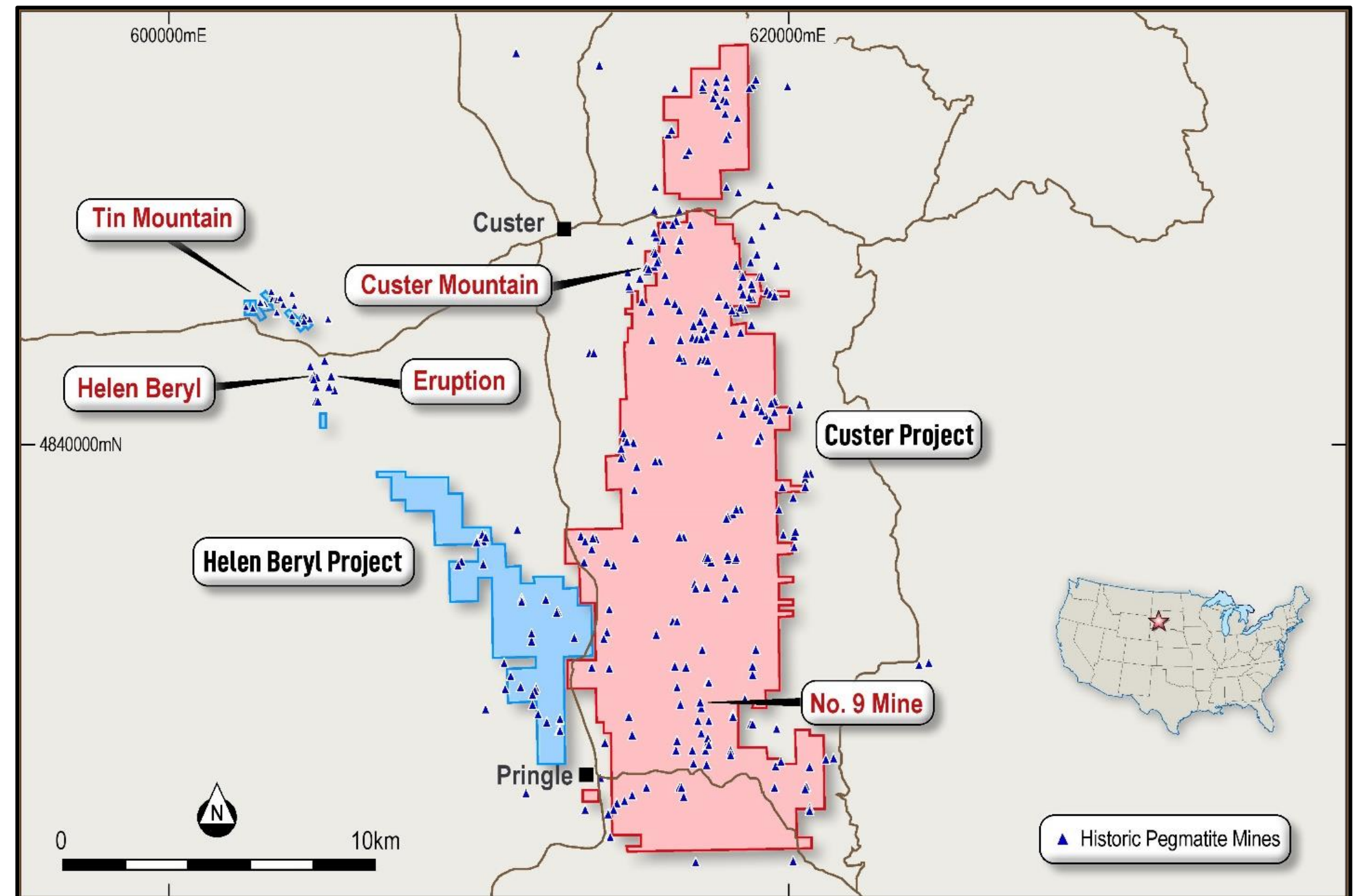


Figure 3: Map showing the Helen Beryl Project highlighting the historical pegmatite mines.





- Consists of **92 BLM Lode Claims** over an area of approximately **1,903 acres**.
- LCT-pegmatites occur in numerous discontinuous swarms trending north-south.
- This area has historically been prospected for gold, but field investigations have **identified outcropping spodumene in pegmatites**.
- Teams are continuing to **stake additional claims in this area** to expand IRIS' footprint in this highly prospective **new find**.



Figure 1: Outcropping Spodumene Minerals from the new find.



Figure 2: Outcropping Spodumene Minerals from the new find.

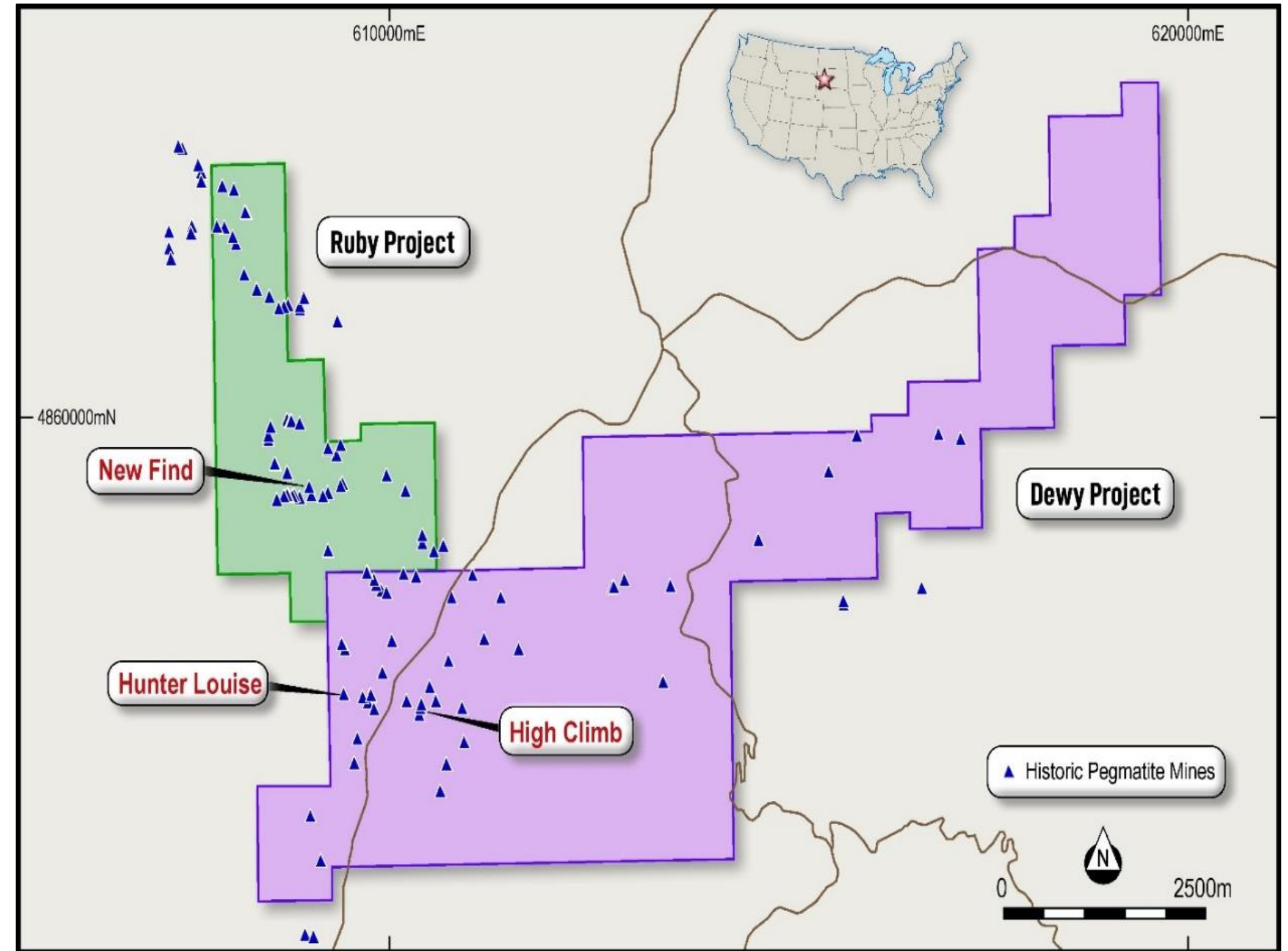


Figure 3: Map showing the Ruby Project highlighting the historical pegmatite mines.





## McKinsey&Company

Continued growth of Li-ion batteries at an annual compound rate of **approximately 30% over the next decade.**

By **2030**, EVs, along with energy-storage systems, e-bikes, electrification of tools, and other battery-intensive applications, could account for 4,000 to **4,500 gigawatt-hours of Li-ion demand.**<sup>[1]</sup>



**Prices for lithium to rise 30%-100% over the next four years.**

The lithium market moving to deficit in 2022 with material shortages emerging from 2025.<sup>[2]</sup>



Instead of 2-3 million tons per annum of **lithium carbonate equivalent demand**, UBS believes somewhere around **5.8Mt will be the more accurate number by 2030.**<sup>[3]</sup>



The **true demand for lithium (by 2030)**, the amount that we think would be used if there was enough supply out there, would actually be **about 3.3mt.**<sup>[4]</sup>

## Bloomberg

**For the past six months, the US joined Europe and China — collectively the three largest car markets — in moving beyond the 5% tipping point.** If the US follows the trend established by 18 countries that came before it, **a quarter of new car sales could be electric by the end of 2025.**

That would be a year or two ahead of most major forecasts.<sup>[5]</sup>



President Biden's Presidential Determination invoking the Defense Production Act to secure domestic critical minerals supply chains as well as **\$7 billion total in grant funding to support domestic battery supply chains** from the Bipartisan Infrastructure Law.<sup>[6]</sup>

1 <https://www.mckinsey.com/industries/metals-and-mining/our-insights/lithium-mining-how-new-production-technologies-could-fuel-the-global-ev-revolution#:~:text=Despite%20expectations%20that%20lithium%20demand,the%20burgeoning%20lithium%2Dion%20battery>

2 <https://www.mining.com/macquarie-joins-peers-on-bullish-lithium-prices-outlook/>

3 <https://www.resourcesrisingstars.com.au/news-article/bullish-ubs-leading-charge-front-lithium-herd>

4 <https://www.moneymorning.com.au/20220707/oil-flatlines-as-lithium-stands-tall.html>

5 <https://www.bloomberg.com/news/articles/2022-07-09/us-electric-car-sales-reach-key-milestone>

6 <https://cleantechnica.com/2022/07/09/electric-vehicle-battery-supply-chains-101/>



# RIGHT TIMING



<p><b>2025</b> – 50% of Porsche vehicles to be EVs or hybrid drive.</p>	<p><b>2025</b> – Hyundai targeting to sell 1 million EVs.</p>	<p><b>2030</b> - Targeting 50% of U.S. sales &amp; 100% of European sales to be fully electric.</p>	<p><b>2030</b> – 100% of Mazdas to have some degree of electrification; 25% to be fully electric.</p>	<p><b>2030</b> – 100% electric.</p>
<p><b>2025</b> – Aims to offer EV's in a majority of its segments. <b>2030</b> – 50% of Ram vehicles to be EVs.</p>	<p><b>2025</b> – Every Mercedes model will be available with 100% electric powertrain.</p>	<p><b>2030</b> – Targeting 50% of U.S. sales &amp; 100% of European sales to be fully electric.</p>	<p><b>2030</b> – 50% of all Nissan and Infiniti sales globally to be electrified.</p>	<p><b>2030</b> – 100% electric.</p>
<p><b>2025</b> – 100% of Jaguar vehicles to be EVs.</p>	<p><b>2025</b> – Plans 3 full EV models.</p>	<p><b>2030</b> – 30 battery EVs forecast to be selling 3.5 million units annually.</p>	<p><b>2030</b> – committed to have 90% of its models electrified.</p>	<p><b>2025</b> – 20% EVs. <b>2030</b> – 50% EVs.</p>
<p><b>2025</b> – 50% of Volvo sales volume to be fully electric and committed to putting 1 million EVs on the road.</p>	<p><b>2025</b> - aims to launch up to 30 EVs worldwide. <b>2035</b> – targets zero-emissions line-up of vehicles in the U.S.</p>	<p><b>2030</b> – full EVs to account for at 50% of sales.</p>	<p><b>2030</b> - to transition to 100% pure electric in most developed markets; including Europe, North America and China.</p>	

2025

2030

2035

2026



ASTON MARTIN

**2026** – product lines will have electrified powertrain option.

2027



**2027** – targeting launch of 14 new EV models.



**2027** – each model will have an electric motor, to achieve a fully electric line up.



TESLA

**2030** – goal to sell 20 million EVs per annum.



**2035** – zero emissions for all vehicle sales in Europe.





- Field teams to **continuing staking activities** to secure remaining strategic and complementary prospective BLM ground in the Black Hills.
- Negotiations are in progress to **access patented claims** over historic mines (patented claims represent freehold surface and mineral rights free of Federal govt. obligations).
- Geologists on site undertaking **detailed mapping and sampling**.
- Large scale **soil sample programs have commenced to identify fertile pegmatites**.
- **Rock chip and channel rock saw sampling** of existing mines.
- **Drilling applications to be lodged** which will enable IRIS to drill test under historic lithium mines.
- Metallurgical samples to be taken from spodumene bearing historic mines to **test the ore's suitability for DMS (Dense Media Separation) beneficiation**.

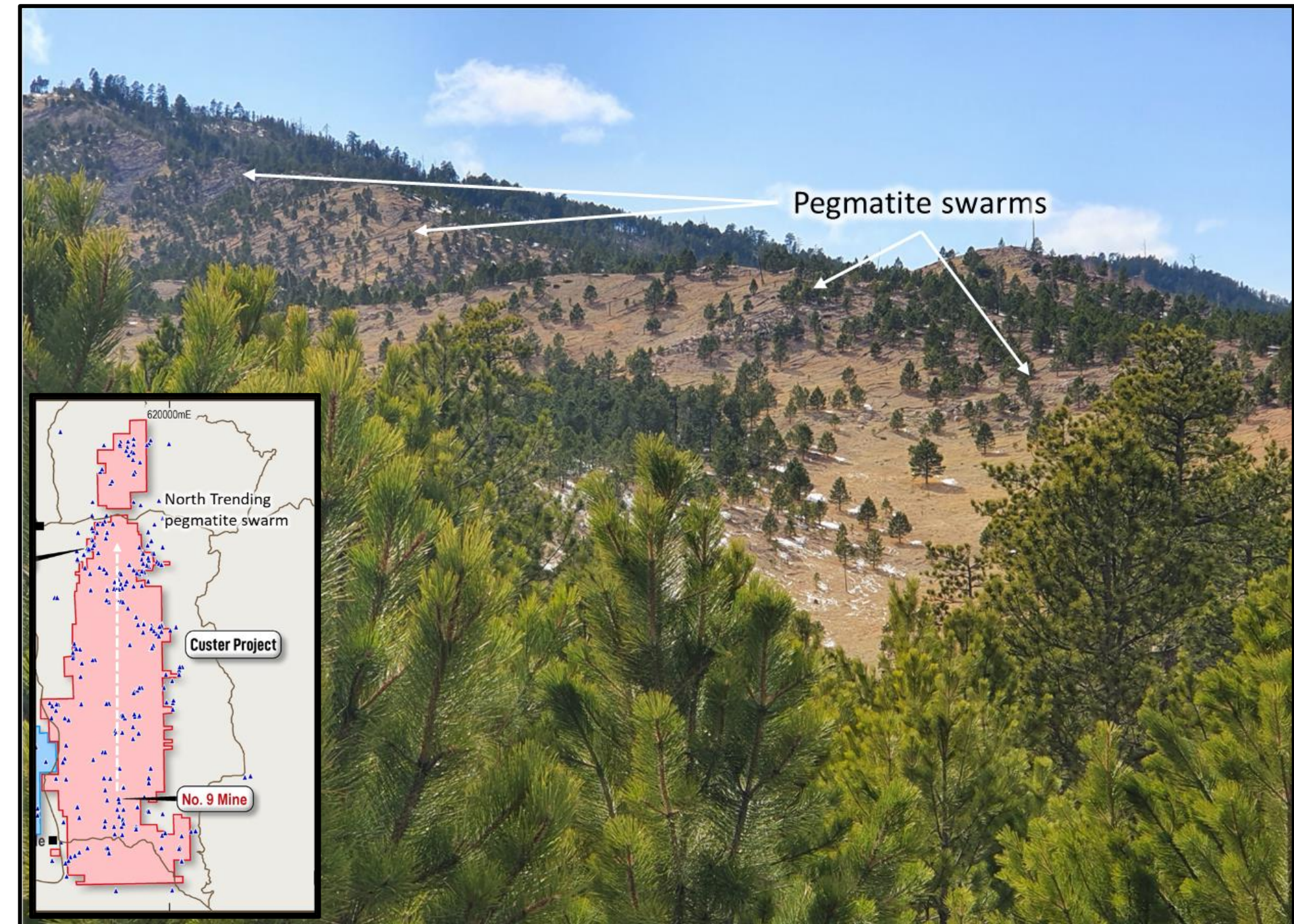


Figure 1: View to the north (IRIS controlled Tenure) from No. 9 Mine, hills are rich with prospective LCT pegmatites.





## Defense Production Act:

- Today the US is completely reliant on the Chinese supply chain for battery production.
- Lithium is defined as critical to US national security.
- To encourage domestic production of minerals required to make batteries for EVs and long-term energy storage.
- Potential government funding for strategic projects.

## Inflation Reduction Act:

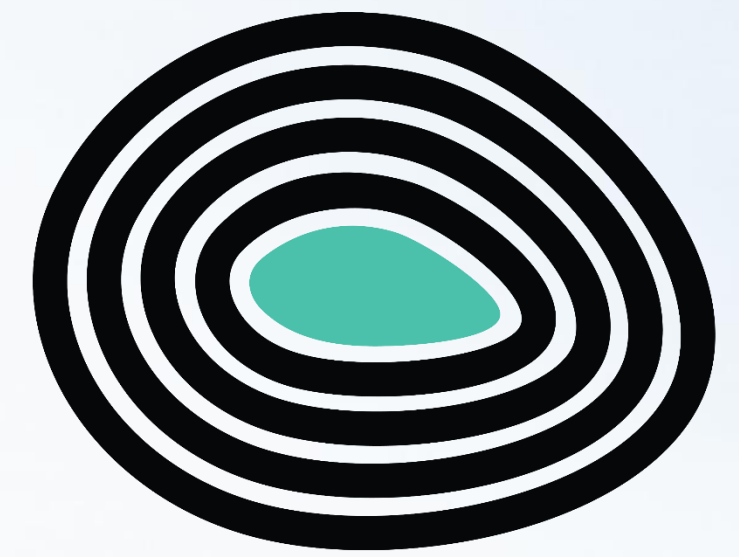
- Provides grants to US owners of new EVs of \$7,500.
- Eligibility for this tax credit contingent upon using key components made and sourced in North America.
- Bill stipulates that 50% of the battery parts and 40% of the minerals must come from US shores or a country with which US has a free trade agreement.

## EV Thematic Powering the Lithium Narrative:

- EVs now make up 5% of all new vehicle sales in the US – anecdotally **1\4 of new car sales** could be electric by the **end of 2025** <sup>[1]</sup>.
- Ongoing industry **consolidation**.
- End users looking to **secure supply**.



# EXPLORING THE USA FOR ITS NEXT HARD ROCK LITHIUM DISCOVERY...



IRIS METALS

[IRISmetals.com](http://IRISmetals.com)  
[admin@IRISmetals.com.au](mailto:admin@IRISmetals.com.au)