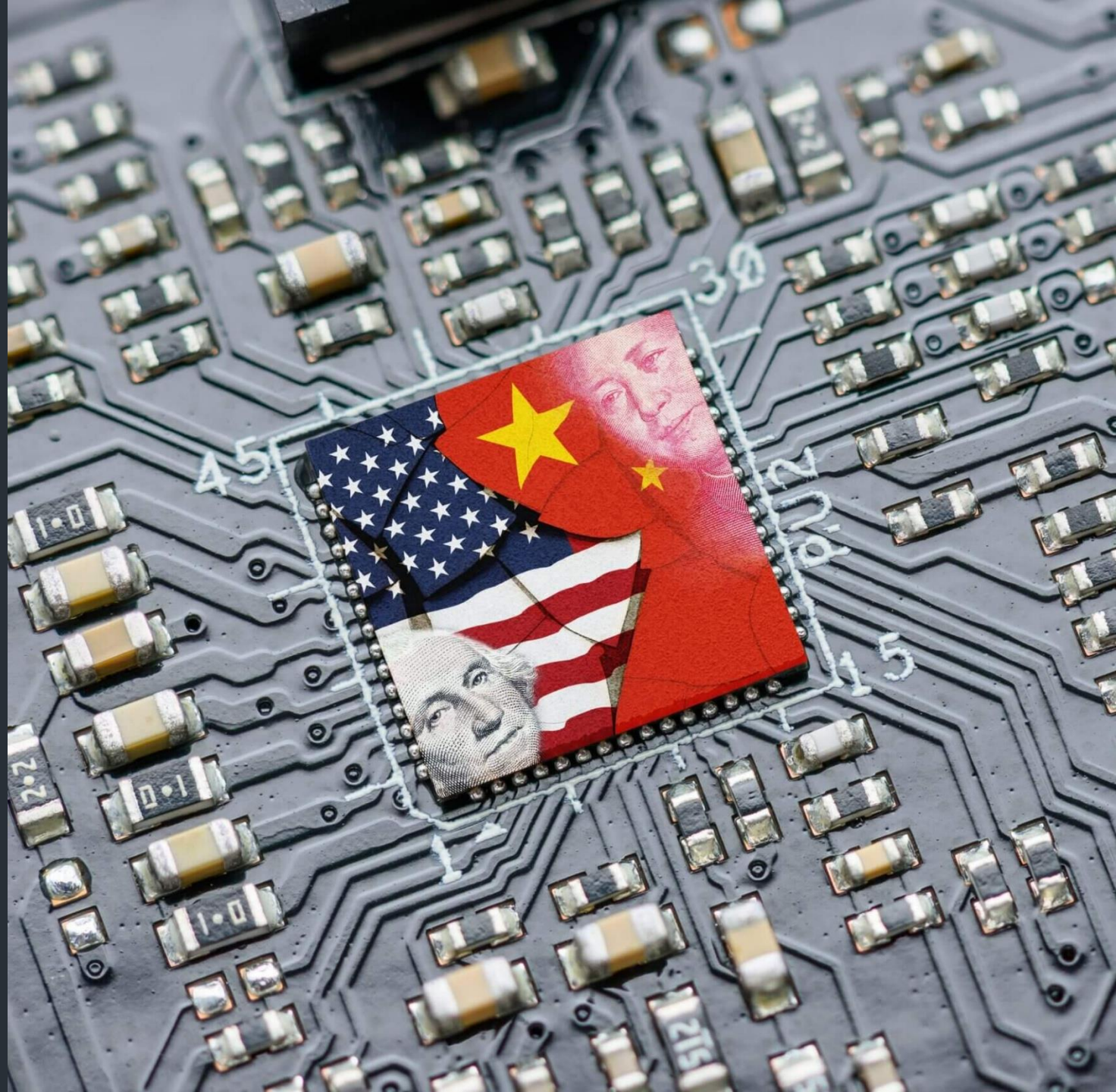
sunrise
energy metals

Syerston Scandium Project

Building Scandium Valley

February 2025



Cautionary statement

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Readers are cautioned that actual results may vary from those presented.

All such forward-looking information and statements are based on certain assumptions and analyses made by Sunrise Energy Metals’ management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; changes in commodity prices; delays in financing or project funding; unexpected failure or inadequacy of infrastructure, or delays in the development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. Readers are cautioned not to place undue reliance on forward-looking information or statements.

Although the forward-looking statements contained in this news release are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this release and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this release.

Competent Persons Statement

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Stuart Hutchin who is a Member of the Australian Institute of Geoscientists (#5285), and a full-time employee of Mining One Pty Ltd. Mr Hutchin has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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’. Mr Hutchin, who is a consultant to the Company, consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Sunrise Energy Metals portfolio

Sunrise Nickel-Cobalt

- Large, long-life, low-cost resource
- Permitted, engineered and development-ready
- Market currently flooded with excess Chinese supply (Indonesia / DRC)
- Plan is to limit work and preserve options until market conditions improve

Syerston Scandium

- Largest high-grade scandium (Sc) resource globally
- Feasibility study update underway
- Markets are strategic – e.g. semiconductors, defense alloys, microelectronic mechanical systems (MEMS)
- Strategy is to develop a source of mineable scandium for customers

Copper-Gold Exploration

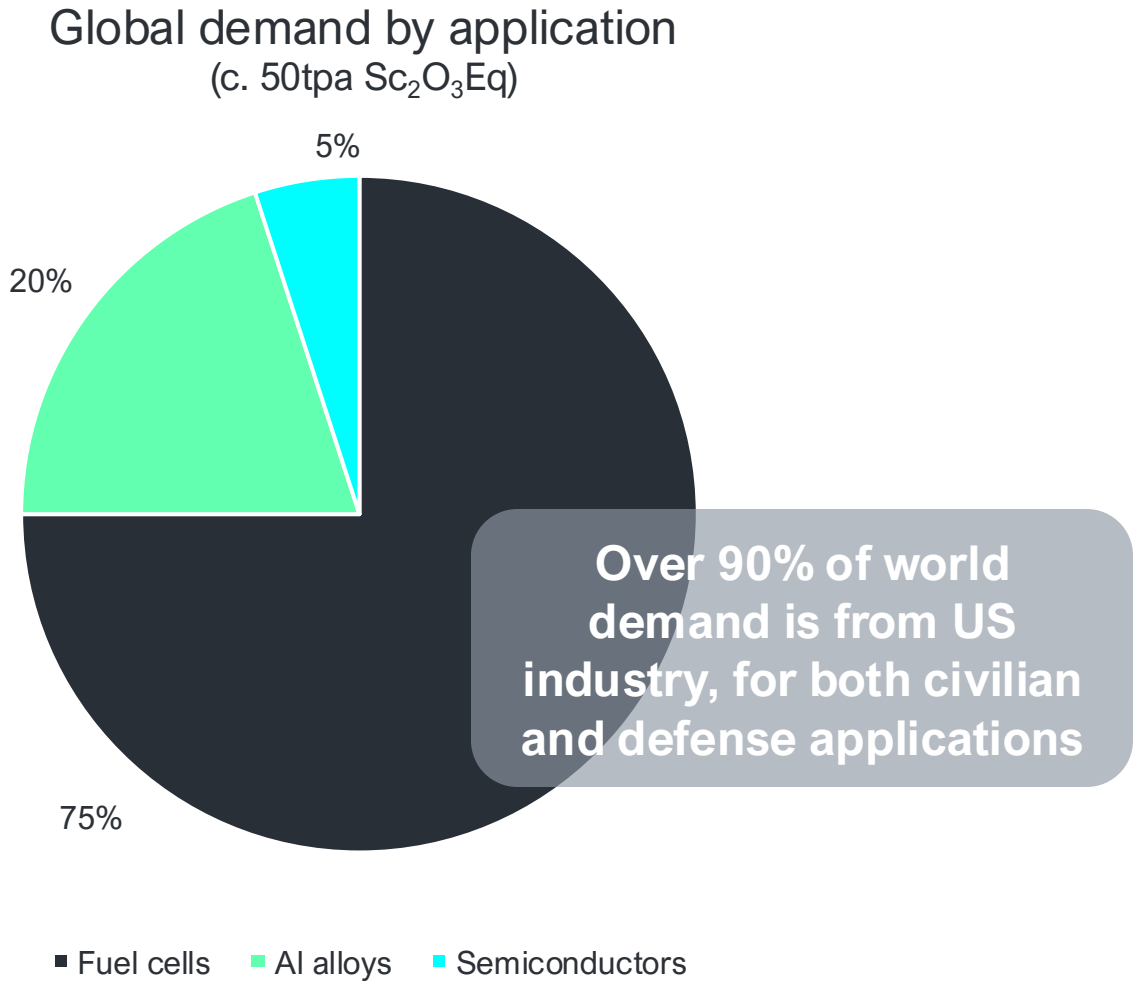
- Prospective copper-gold (Cu-Au) targets across the Cloncurry district covering 1,000 km^2 north-east of Mt Isa, Qld
- Focus is on the 400km north-south structural corridor hosting Osborne, Starra, Swan and Ernst Henry
- Shallow drill program to commence 1H25

Scandium market

Scandium 101

- Scandium (Sc) is the lightest transition metal and classified as a rare earth element (REE) - it is common in the earth's crust, but at very low concentrations
- Its distinct outer shell electron structure has a potent ability to transform the properties of other elements and compounds, especially in aluminium and in piezoelectric and ferroelectric applications
- Scandium has rarely been produced via mining – usually waste reprocessing or as by-product
- A lack of diversified supply options, and a concern that production cannot scale fast enough to meet new demand, has limited Sc adoption by customers despite its intrinsic value

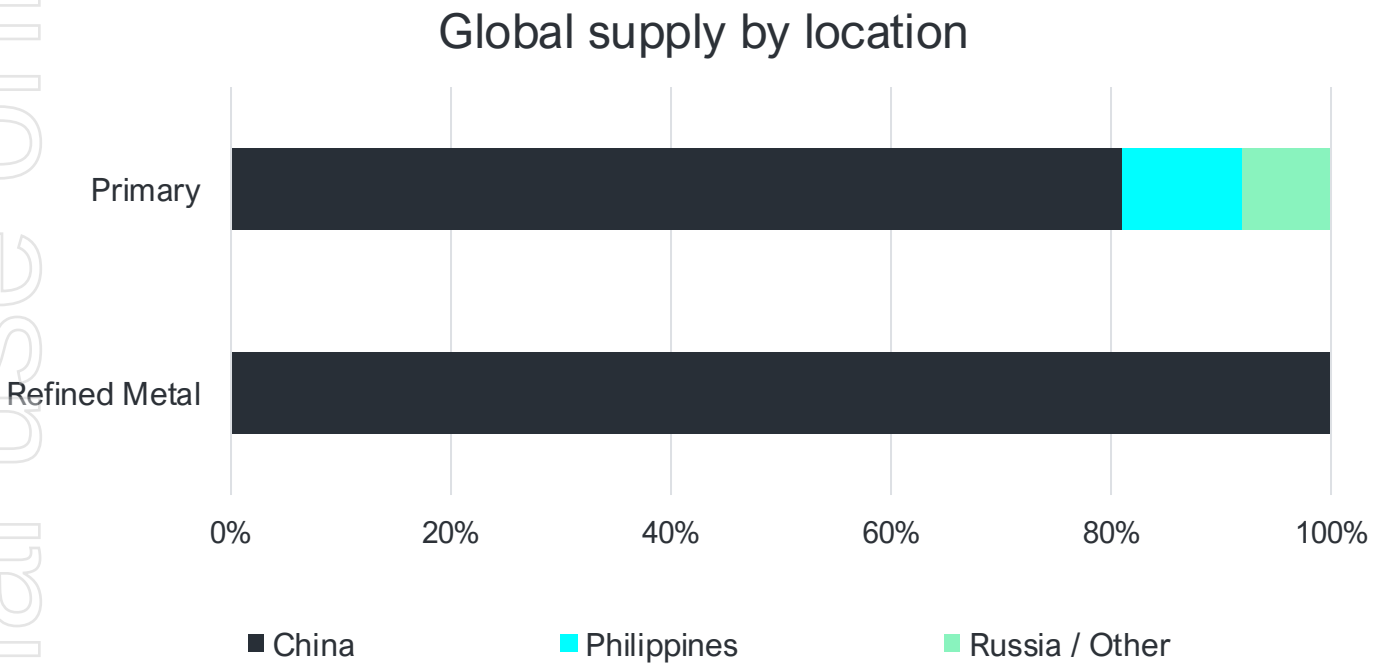
Global demand



Based on published data and company estimates

- **Solid oxide fuel cells** remain the largest end-use application - steady growth driven primarily by Bloom Energy (CA), with future potential in hydrogen electrolysers
- **Aluminium alloys** are the largest use case - automotive, marine and aerospace. Scandium improves strength, extrudability, corrosion-resistance and weldability. The high-volume requirements demand proof of diverse and scalable supply chains.
- In **radio frequency (RF) filtering**, the piezoelectric properties of aluminum scandium nitride (AlScN) thin film makes it the (only) material of choice in 5G/6G spectrum >3GHz. Its ferroelectric properties also make it an emerging option for stable, low-energy **flash memory** at high temperature.

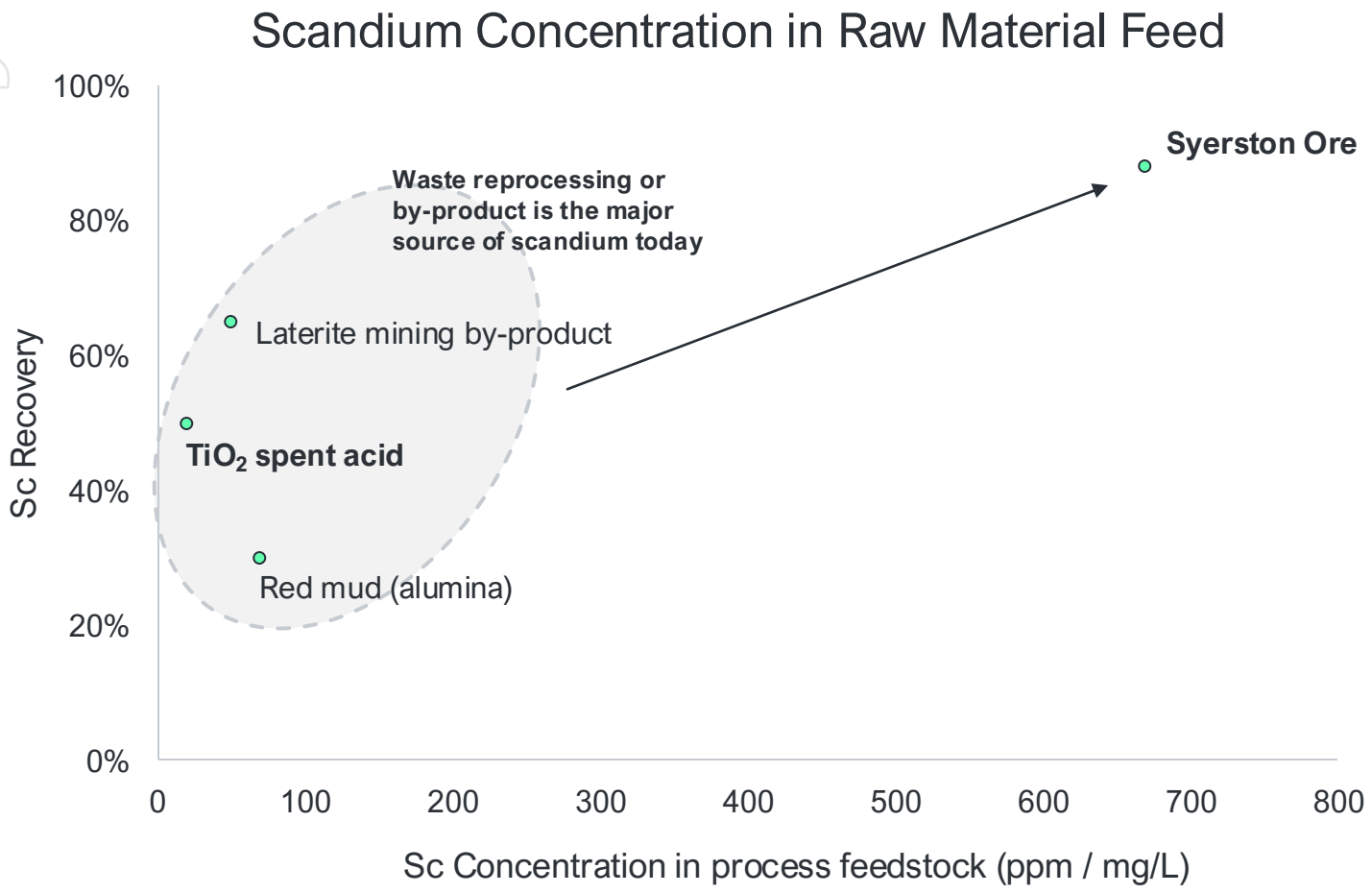
Global supply



- China's share of global scandium supply exceeds that of almost all strategic metals, including gallium, germanium, silicon and rare earths
- China has actively pursued a vertical integration strategy to control supply and pricing into western markets
- Higher tech applications require extremely pure refined metal, which can only be sourced from China

Source: Based on published data from supplier / analyst reports and company estimates.

Primary scandium mine supply opportunity

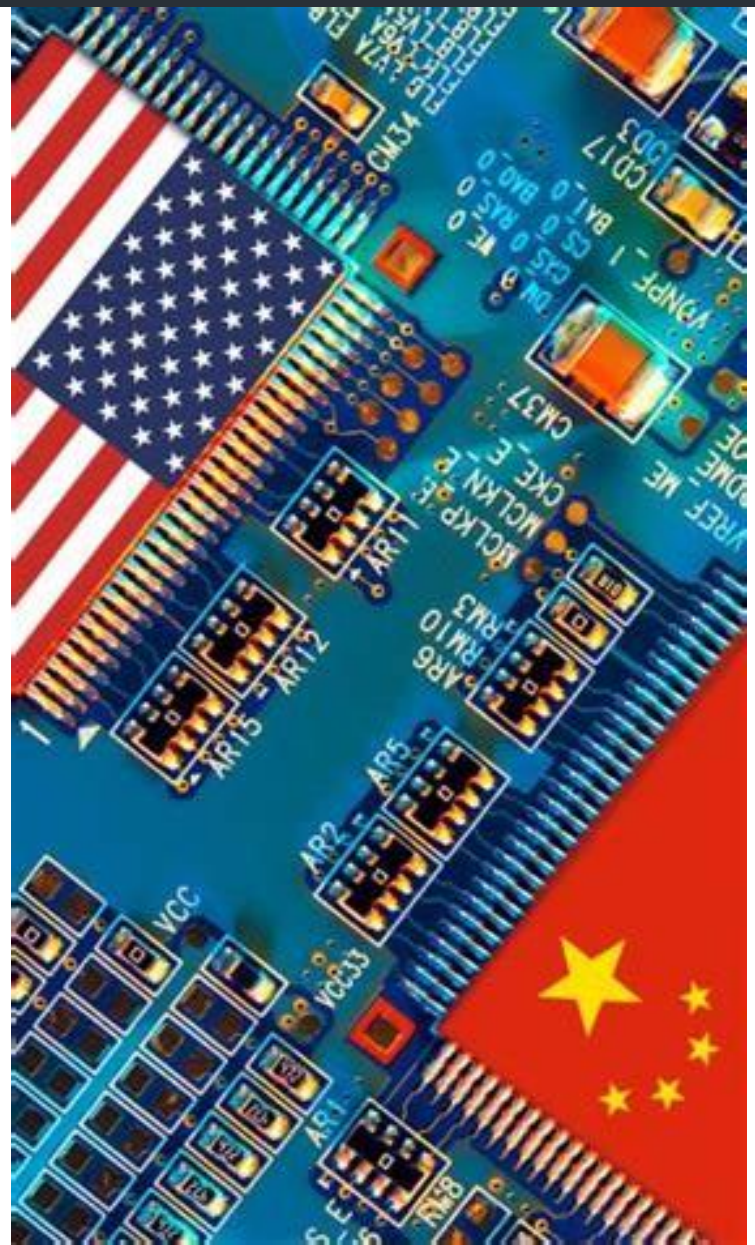


- Most of the world's scandium today comes from China, where TiO_2 pigment waste is reprocessed to extract low concentrations of scandium (c. 20 ppm), often at high environmental cost
- The high-grade, shallow discoveries in Australia's 'Scandium Valley' present an opportunity to completely restructure global supply chains
- Mining offers the ability to **scale production** to satisfy high-volume customers (eg alloys), and also providing metallised alternatives

Geopolitics drives the outlook for scandium

US trade announcements

- US tariffs may see increased scandium prices for chemicals (Sc_2O_3 and ScF_3) and metal (ingot and powder)
- Aluminum tariffs may raise utilisation rates at US casting and fabrication facilities (rolling, pressing, extrusion), creating a strong value-in-use case for Sc
- Aircraft: 44,000 new aircraft[1] to be built in the next 20 years; if scandium was used in 50% of that aluminum, that requires c.150-200tpa Sc_2O_3

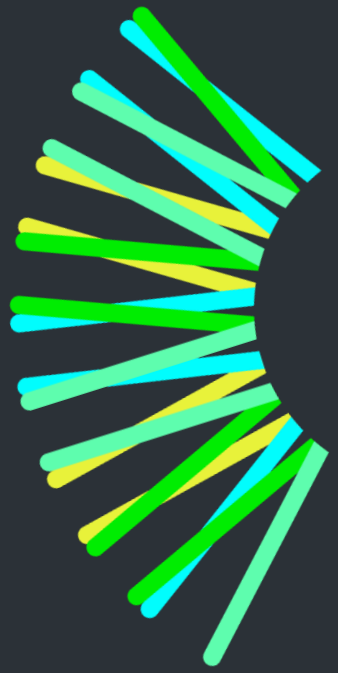


China's supply response

- Scandium metal is on China's list of goods subject to export-restricted licensing, as are scandium chemicals and compounds
- Export of Chinese equipment and engineering services also restricted
- China's scandium industry has been consolidated under one entity - LB Group - which is significantly expanding capacity[2]
- China continues to support its scandium industry with tax subsidies under its high-tech manufacturing programs

1. Boeing Company, *2024 Commercial Market Outlook*

2. https://www.hnosc.com/scandium/scandium-oxide/refined-scandium-oxide.html



Syerston Scandium Project

Syerston Scandium Project

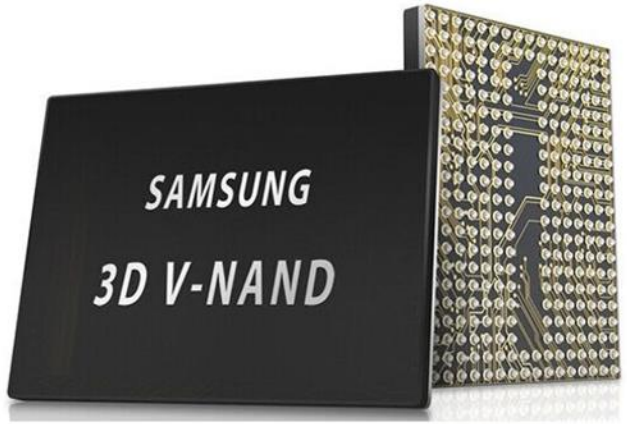
Significantly advanced mining project with major milestones achieved, including key development permits, piloting and good community support

2025 Mineral Resource Estimate (MRE) to support an updated Feasibility Study for a scandium mine and processing facility in New South Wales

Offtake discussions progressing, the results of which will inform the design scope for the 2025 update to the Feasibility Study

Product development programs in progress in the US and Asia, including engagement via US government programs

Focus is to develop a small, high-grade (c. 600ppm Sc) low capex operation which can expand on the back of the significant global resource base

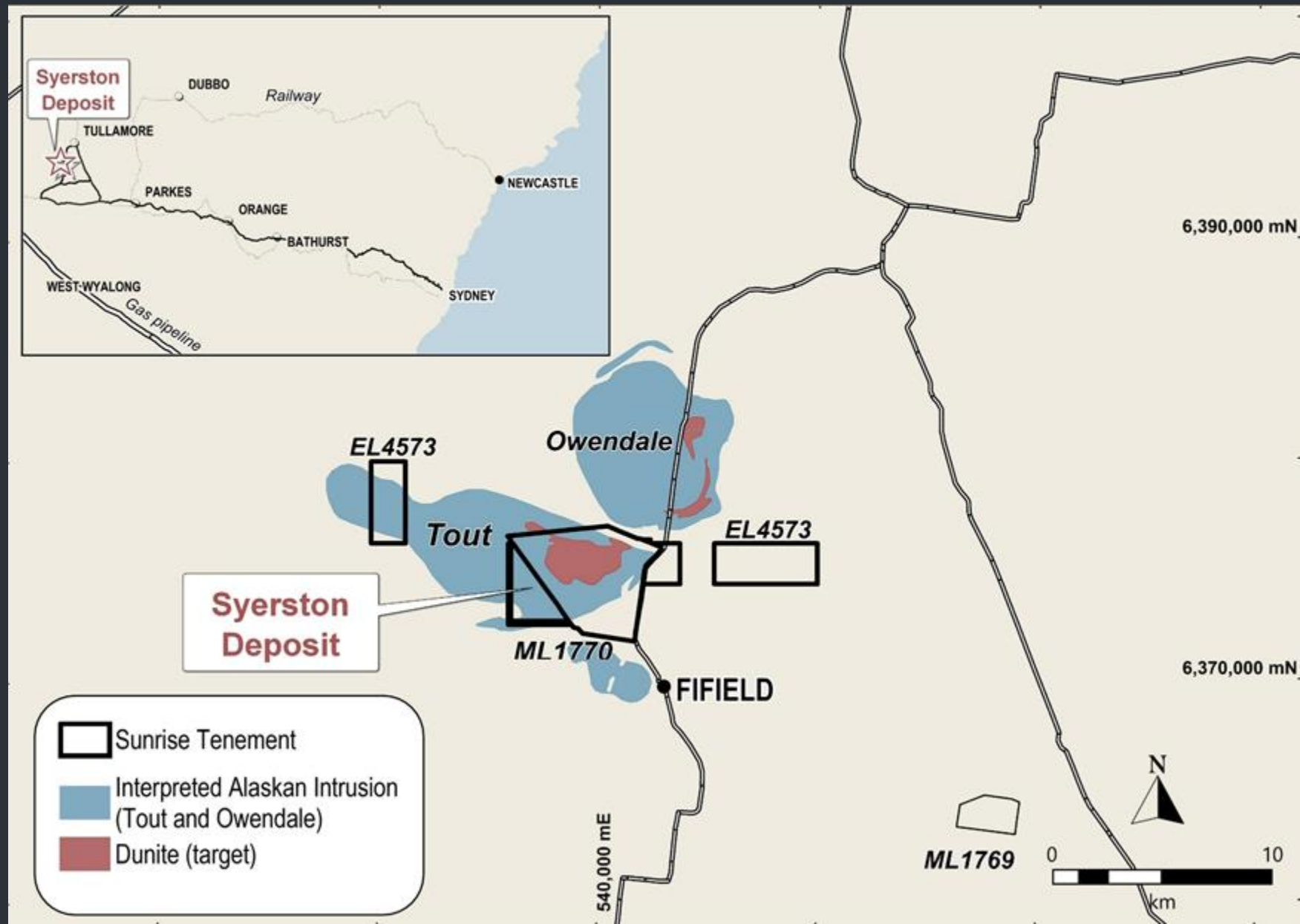


Syerston Scandium Project: location and infrastructure

Granted **Mining Lease** (ML1770) adjacent to excellent road and rail **infrastructure**

Water rights secured, **electrical connection** application submitted

Freehold land rights surrounding the project are secured



Project site

Syerston Mineral Resource Estimate (MRE)

- Resource estimate supported by 1,940 drill holes over 73,870 metres of drilling, including 47,817 assays
- Deposit extends 4.5 km (north-south) by 4.2 km (east-west)
- Shallow, continuous mineralisation (30 - 40m depth) delivers a low strip ratio for simple, low-cost mining
- Further drilling is planned to target more high-grade mineralisation, with the resource open to the north and west

Syerston Mineral Resource Estimate (JORC 2012)

Cut-off	Class	Mt (dry)	Sc (ppm)	Sc (t)	Sc_2O_3 Eq (t)*
300 ppm Sc	Measured	5.3	436	2,299	3,518
	Indicated	18.2	400	7,284	11,144
	M+I	**23.5**	**408**	**9,583**	**14,662**
	Inferred	36.9	379	13,972	21,376
	M+I+I	**60.3**	**390**	**23,554**	**36,038**
600 ppm Sc	Measured	0.4	680	302	462
	Indicated	0.2	638	140	214
	M+I	**0.7**	**666**	**442**	**676**
	Inferred	0.1	642	59	91
	M+I+I	**0.8**	**663**	**501**	**767**

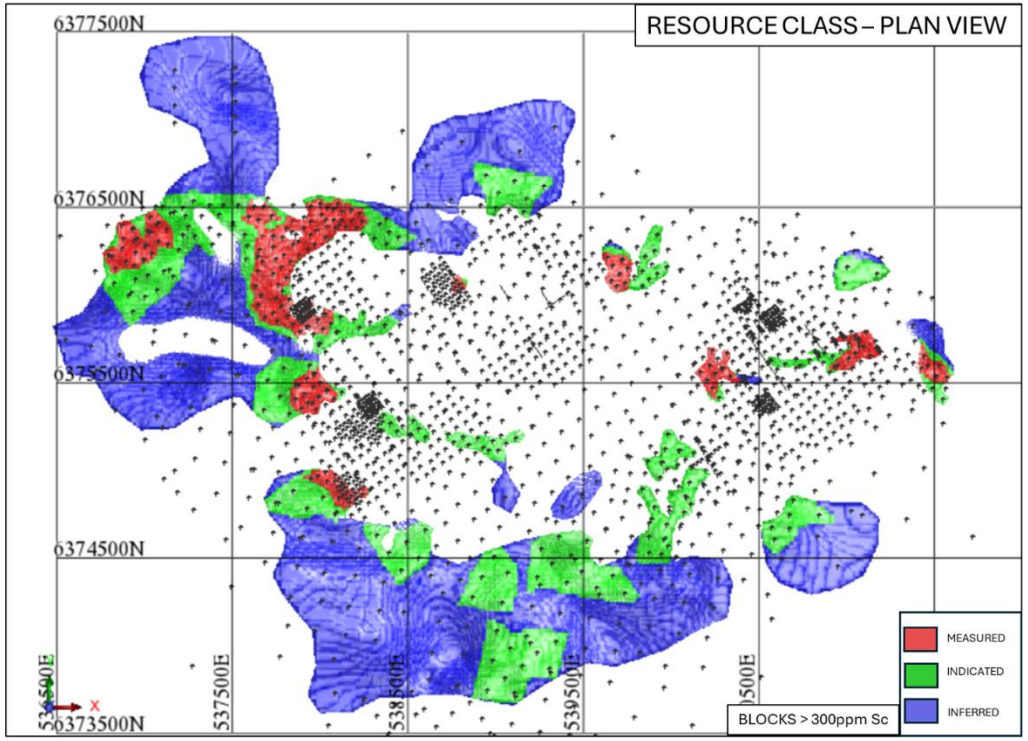
"The updated Syerston MRE highlights the scale and quality of our scandium assets, with enough grade and tonnage to support decades of future supply."[1]

1. Refer to the Company's ASX announcement of 11 February 2025 for further details on the Mineral Resource Estimate and the Competent Persons Statement.

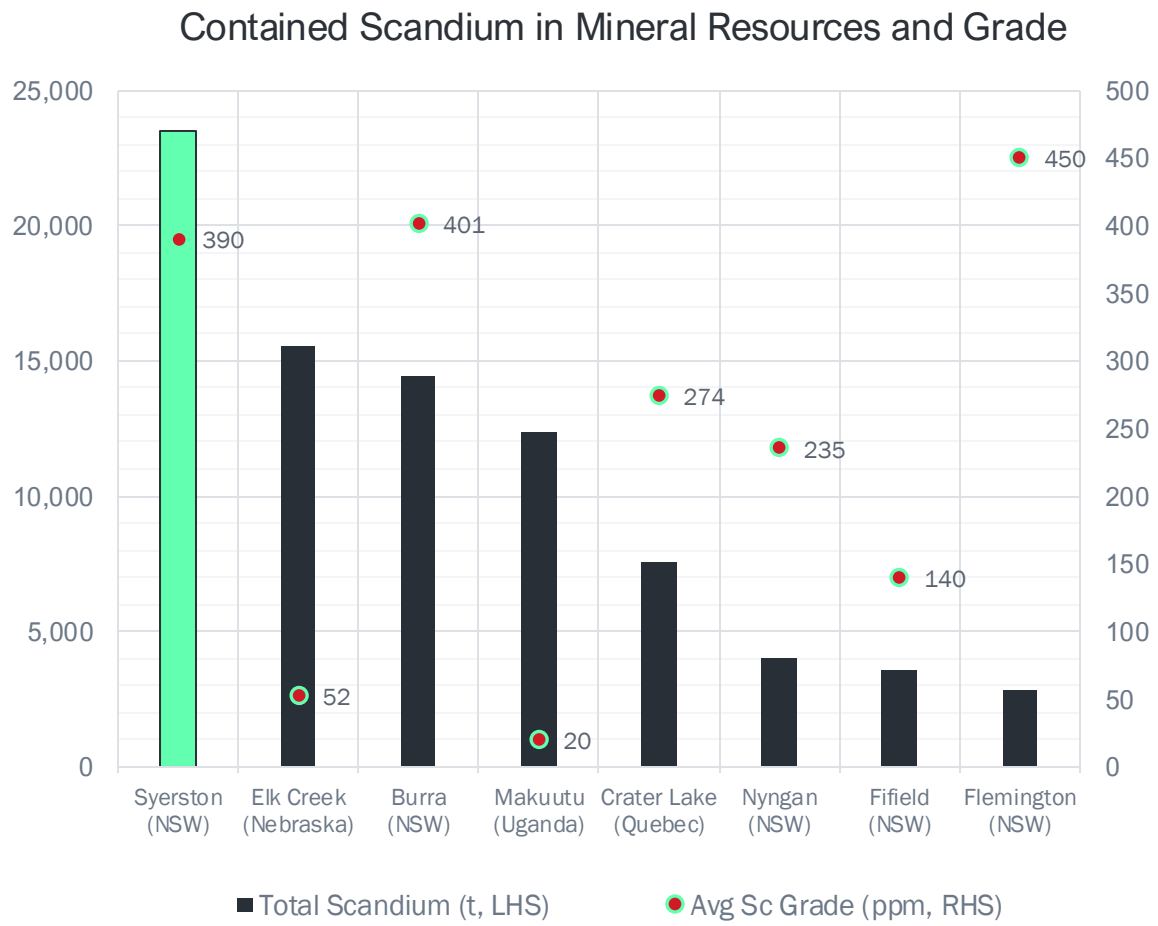
Drilling campaign - 2Q25

- Whilst the MRE is supported by 73km of drilling, there remain areas of undrilled potential adjacent to zones of high-grade mineralisation
- These zones justify further testing via a drilling campaign, scheduled to commence in 2Q CY25
- The drilling campaign will focus on expanding the tonnage and grade within the high-grade zones of the deposit
- The campaign will be relatively short in duration and involve reverse circulation (RC) and/or air core (AC) drilling to shallow depths
- Data from the drill campaign will add further definition for the mine plan and development of Ore Reserves

Drill hole locations and distribution of resource classification



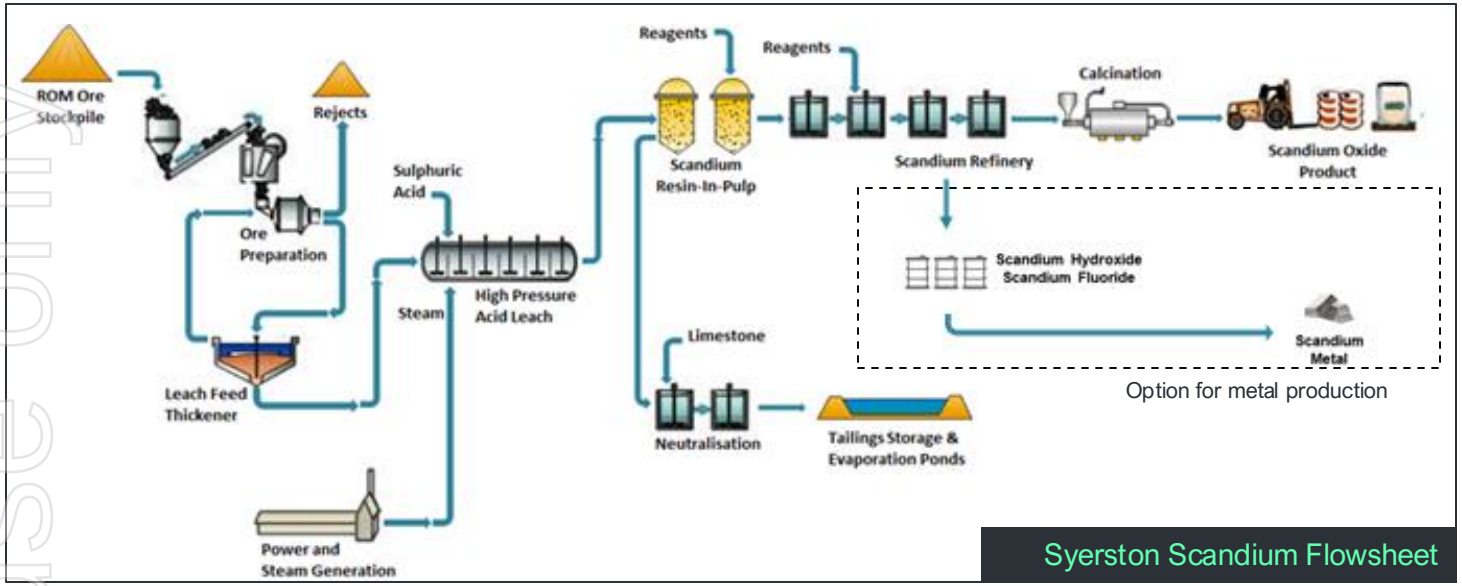
Global scandium resources



- The discovery of high-grade scandium-bearing laterites in central-west NSW has provided the world with its first district-scale opportunity to develop primary mining sources of scandium
- **The Syerston Project is the largest high-grade scandium resource in the world**
- **Ultimately, value is driven by identifying high-grade zones of mineralisation (>600ppm) that will underpin early low-cost development**
- As demand expands and unit costs decline with volume, the project aims to target hundreds of tonnes of annual production

Source: SNL Global Resource Database. The analysis focuses on the largest global resources where Sc grades exceed 20ppm and includes measured, indicated and inferred resources.

Flow sheet supported by met test work and piloting



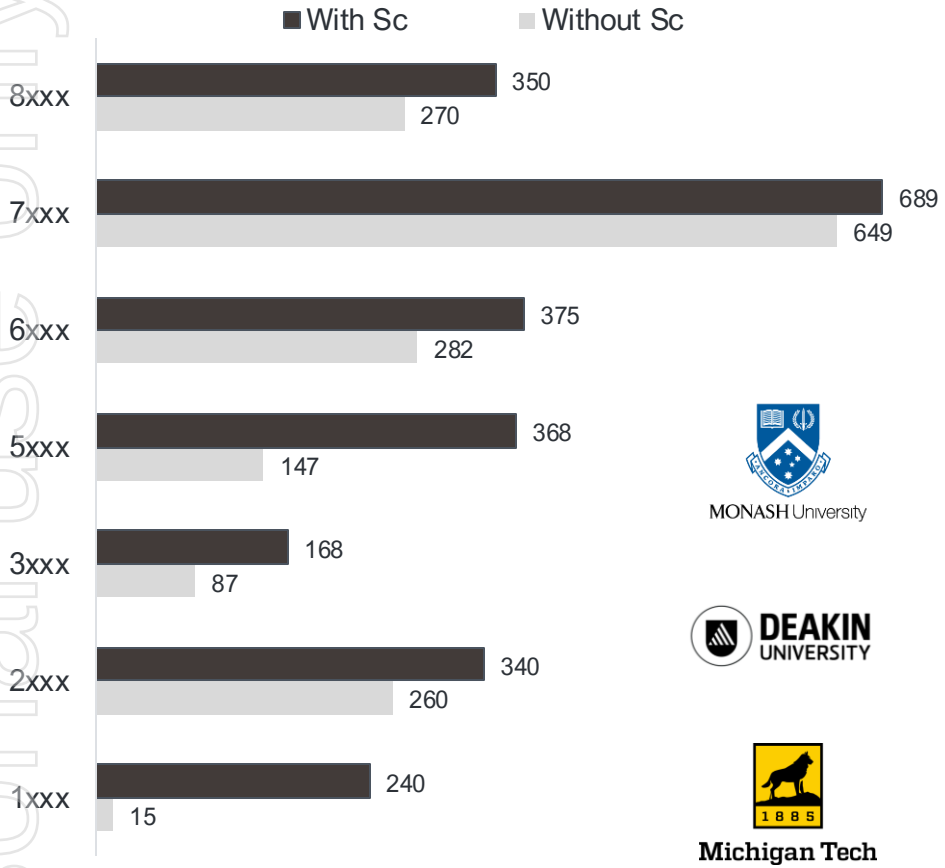
Syerston Scandium Flowsheet


Syerston Pilot Plant

- Conventional flow sheet comprising a milling circuit, autoclave for pressure acid leaching of ore, an ion exchange resin-in-pulp circuit and a multi-step purification process (precipitation and calcination) – small scale in mining terms
- The pilot plant ran in 2015 and 2016 using representative composite bulk ore samples from site to produce high purity scandium oxide for customer testing
- Current update to the flow sheet will assess production of scandium fluoride and high purity scandium metal

Developing a larger scandium market

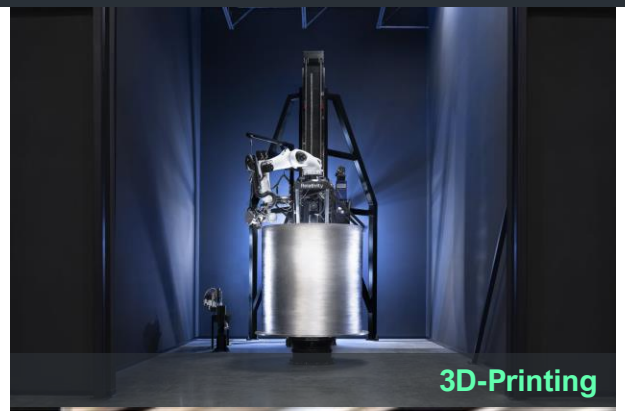
Scandium Effect on Yield Strength (MPa)[1]



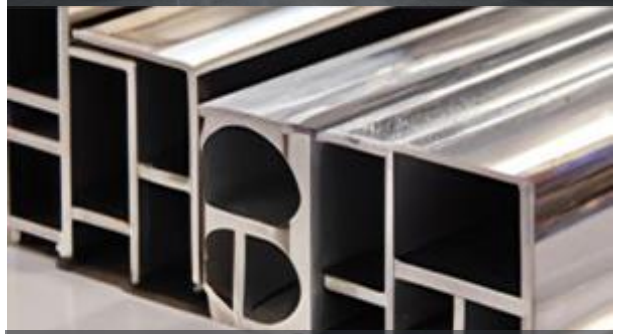
MONASH University

DEAKIN UNIVERSITY

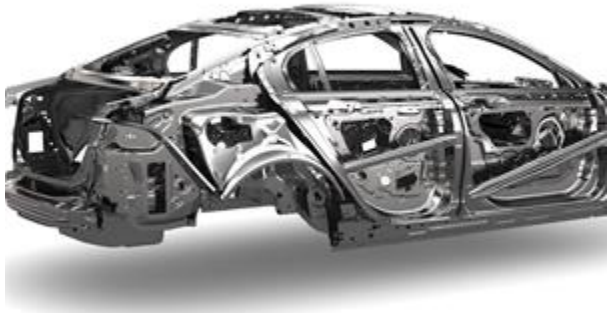
Michigan Tech



3D-Printing



Aerospace extrusions



Automotive body and parts

- Our focus has been on development programs with partners that can deliver high volume applications, ie. alloy focus in aerospace / transport
- Higher volumes reduce unit cost and strengthen the value-in-use case
- Patent portfolio in auto and aircraft alloys, electric vehicle batteries and semiconductor targets

"Scandium provides strength, toughness, and microstructure control that were **previously unobtainable via conventional alloying and processing methods**. [It] provides the **highest strength increase of any element**, on an atomic fraction added basis, and Al_3Sc is among the most potent inhibitors of recrystallization and grain growth."[2]

1. Hydro Aluminium R&D, Sunndal, 2012. The 6xxx series results from Sunrise testwork.
2. AMG Aluminum, *Aluminum Scandium Alloys*, p1

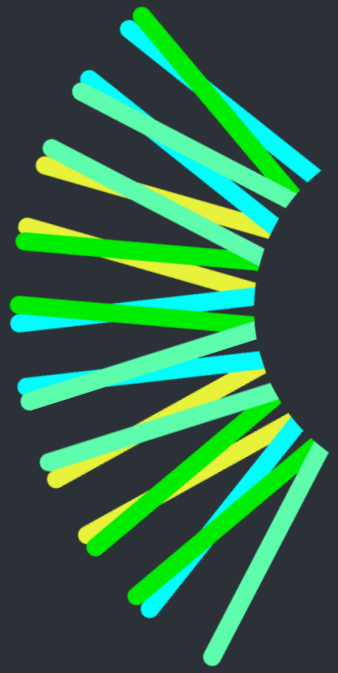
Syerston Scandium Project catalysts

Delivered

- ✓ Granted Mining Lease
- ✓ Environmental Impact Statement completed
- ✓ Water rights secured and pump testing completed
- ✓ Electrical connection application filed for renewable energy supply
- ✓ Metallurgical test work and piloting successfully completed
- ✓ Scandium patent applications

Upcoming

- ❑ Commence drilling campaign on high-grade Sc zones (2Q25)
- ❑ Progress aluminium alloy development work in the US and Japan (ongoing)
- ❑ Finalise options on scandium metallisation processes (3Q25)
- ❑ Offtake discussions (ongoing)
- ❑ Engagement on US Government critical metals programs (ongoing)



Investment thesis

Investment summary

Unique asset

- A large, high-grade source of mineable scandium
- Amenable to shallow, low strip mining with decades of expandable resource available
- Granted Mining Lease adjacent to excellent infrastructure

Advanced and with low sovereign risk

- Piloting and metallurgical test work completed with excellent results
- Key permits in place and the project has good state government and local community support
- A focus on the US-Australian partnership for critical mineral supply

Strategic

- Scandium is at the heart of modern semiconductor comms technologies
- China's share of global supply is extreme, even by REE standards
- US trade policy has potentially positive impacts for supporting alternative supply options

Exploration

- Positions in two of the world's most prospective geological districts - Lachlan Fold Belt (NSW) and Cloncurry (Qld)
- Target generation supported by a world class exploration team
- Drilling campaigns planned for both NSW (high-grade Sc) and Qld (Cu-Au)

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