



Neometals

All the right elements®

14th March 2019

ASX Code: NMT OTC/Nasdaq Intl: RDRUY

Disclaimer

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Forward-looking information: This document contains, opinions, projections, forecasts and other statements which are inherently subject to significant uncertainties and contingencies. Many known and unknown factors could cause actual events or results to differ materially from the estimated or anticipated events or results included in this document. Recipients of this document are cautioned that forward-looking statements are not guarantees of future performance.

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Financial data: All figures in this document are in Australian dollars (AUD) unless stated otherwise.

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Competent Persons Statement:

The information in this document that relates to "Mt Edwards Nickel - Mineral Resource Estimate", "Barrambie Project - Mineral Resource Estimate and Exploration Target", "Barrambie Pre Feasibility Study Results", "Mt Marion Mineral Resource Update and "Lithium Battery Recycling – Scoping Study Results" are extracted from ASX Releases set out below. The Company confirms that it is not aware of any new information or data that materially affects the information included in the ASX Releases set out below, and in the case of estimates of mineral resources and exploration targets, that all material assumptions and technical parameters underpinning the estimates in those ASX Releases continue to apply and have not materially changed.

5/5/2009	Barrambie Vanadium Project – DFS Completion and Outcomes	19/4/2018	Mt Edwards Nickel – Mineral Resource Estimate
22/02/2017	Lithium Battery Recycling – Scoping Study Results	25/6/2018	Mt Edwards – Mineral Resource Over 120,000 Nickel Tonnes`
17/4/2018	Barrambie Project – Mineral Resource Estimate and Exploration Target	16/11/2018	Neometals Commences Update of Barrambie DFS

The Company confirms that all the material assumptions underpinning the production target and the forecast financial information derived from the production targets in the "Barrambie Vanadium Project - DFS Completion and Outcomes" released on 5 May 2009, the "Metals Commences Update of Barrambie DFS" released on 16 November 2018 and the "Lithium Battery Recycling – Scoping Stud Results " released on 22 February 2017 continue to apply and have not materially changed.

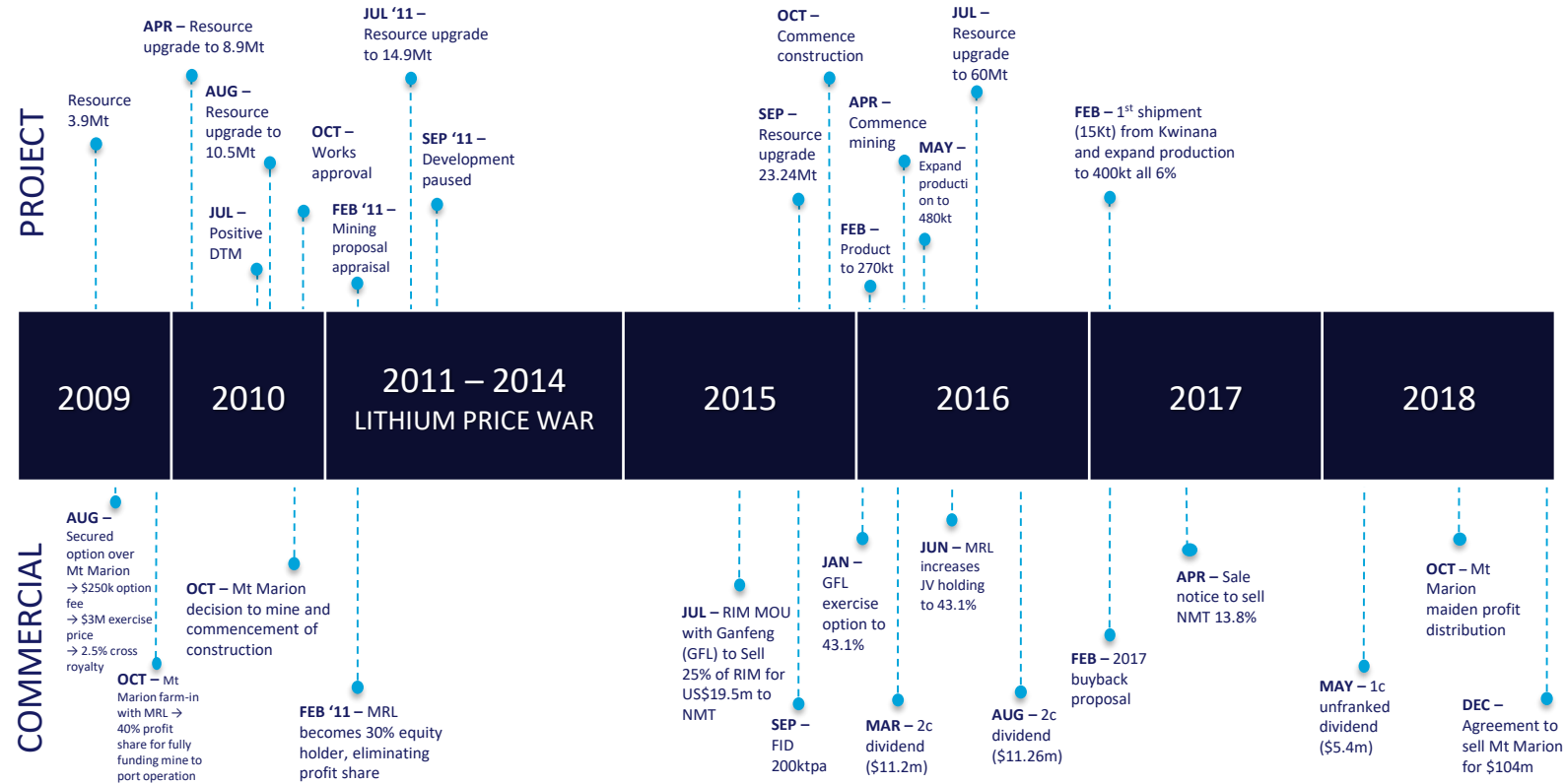
Neometals is different

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Project developer of strategic materials for the 21st Century

- Start with globally relevant commodity before its popular
- Acquire most advanced project with grade/scale
- Add value with drill-bit, test work, evaluation studies
- Develop with partners to achieve optimum scale, minimise capital outlay and accelerate returns
- Built and exited major project in this risk averse manner
- We return \$ to shareholders, \$34M to date
- Have strong balance sheet and developing a track record
- We invest in innovation and target higher margins from downstream processing of mineral concentrates

Mt Marion journey – ‘differentiation’ case study



Executive Summary

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- Listed (ASX:NMT) project developer
- Established in 2003, team of 20, Perth HQ and industrial facility/research laboratory in Montreal
- Post-sale pro-forma* cash of +A\$130M plus ~A\$9M in investments vs. current market cap of A\$125M
- Balance sheet to develop the following core, wholly-owned projects, currently in the final stages of evaluation:
 1. Barrambie Vanadium and Titanium Project (WA);
 2. Lithium-Ion Battery Recycling Project; and
 3. Kalgoorlie Lithium Refinery Project (WA).
- Projects supported by innovation to drive cost efficiencies and increase margins

Who are Neometals?

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NE Board Members

Management Team



Please refer to supporting information slides at rear of document for name and position..

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Strong Balance Sheet and getting stronger despite weak Li prices which have lead share price

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ASX: NMT	OTC:RDRUY	
Shares on Issue ¹	m	543.9
Share Price (8-Mar-2019)	A\$	0.23
Market capitalisation	A\$m	125.0
Cash (31-Dec-18)*	A\$m	30.1
Debt (31-Dec-18)	A\$m	-
Investments (31-Dec-18) ²	A\$m	9.2

* Post settlement +A\$130M

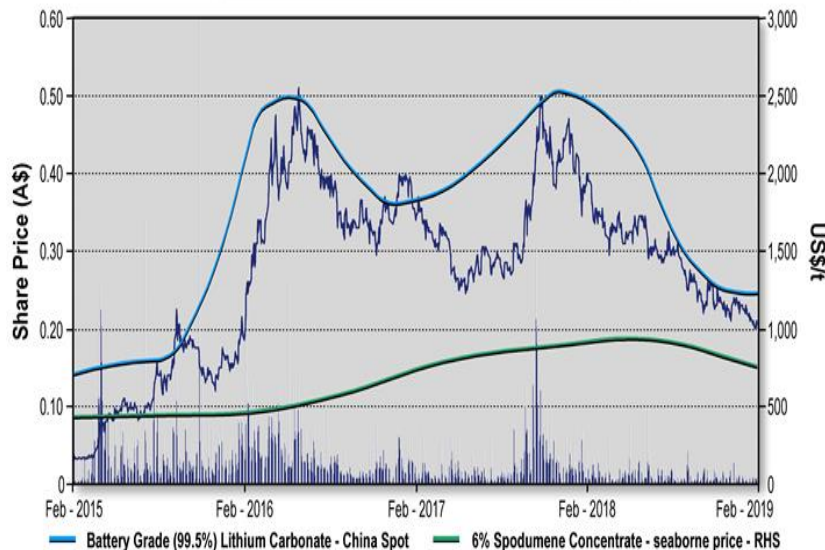
Major Shareholders (7-Jan-2019)	
David Reed (Non-Executive Director)	9.0 %
Westoz Funds Management	2.9%
Top 20	37.2 %
No of Shareholders	~8,000

Note 1: Excludes 7.0m performance rights.

Note 2: Loan receivables and investments

Source: Neometals

Share Price v Lithium & Spodumene Price



Neometals



Short term development priorities



- Core strategy remains to de-risk and develop long life projects with strong partners and integrate down the value chain to increase margins and return value to shareholders
- Neometals will maintain a defensive balance sheet strategy and disciplined capital allocation in line with todays market cues and
- Refined short-term development priorities by order of budget spend:
 1. Barrambie - engineering, approvals and financing towards FID for development of primary vanadium project in 2019;
 2. Completion of the lithium-ion pilot and feasibility study in parallel with market qualification, partner and approval processes; and
 3. Advancing the design and approvals for the lithium refinery project to align development timing and spend profile with next lithium market cycle.



Lithium

Neometals



Mt Marion Equity Divestment



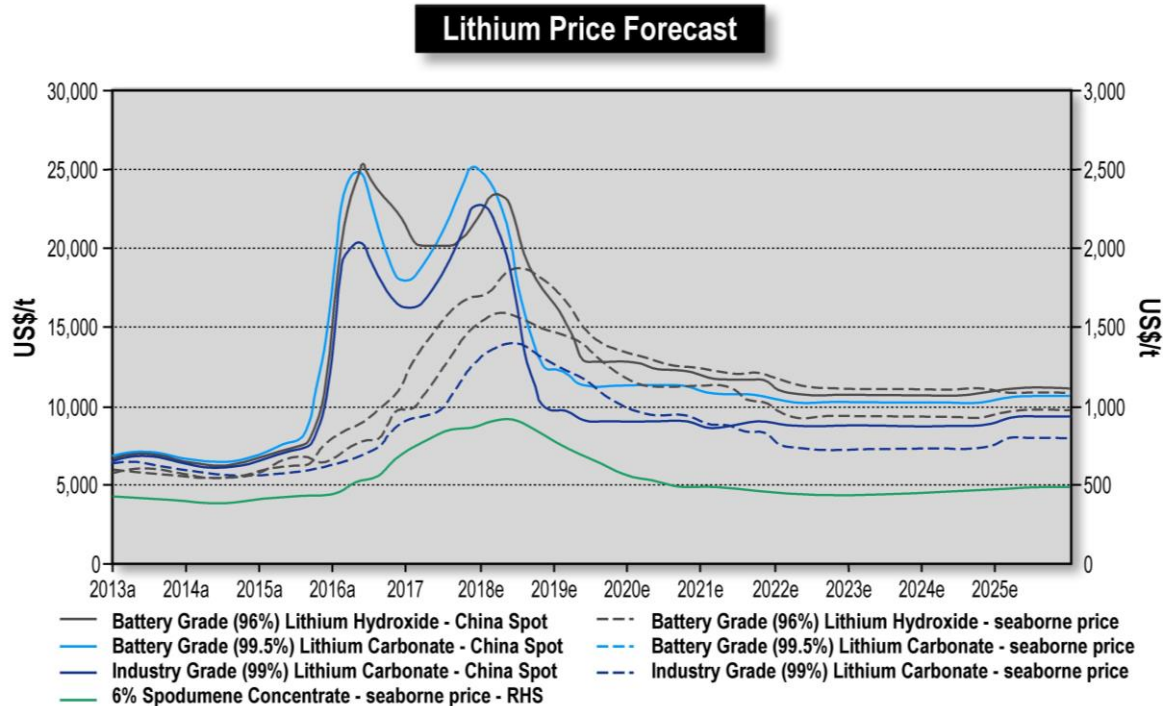
Highlights:

- NMT to sell its Mt Marion equity to Ganfeng and Mineral Resources for A\$103.8M
- Subject to Ganfeng obtaining Chinese approval by 28 February, FIRB ✓
- 'Life of Mine' spodumene concentrate annual offtake option for 57ktpa of 6% Li₂O at prices linked to international and Chinese lithium chemical prices.
- Retain option to produce higher value lithium chemicals from proven feed supply

Context:

- ❖ Total Mt Marion equity sale proceeds since 2015 will be ~A\$198M on A\$3M NMT initial investment. ~A\$34M returned via dividends and share buybacks
- ❖ Shift exposure from upstream spodumene production to pursue the lithium battery thematic further down the value/supply chain
- ❖ Stronger balance sheet with offtake volume certainty aids NMT project finance and offtake/partner selection processes for all growth projects

Chemical prices normalising in the short term, medium term outlook is flat



Source: Deutsche Bank

Lithium Refinery

Li

Neometals have been progressing technical and commercial feasibility of a lithium chemicals refinery in Kalgoorlie, with an initial production capacity of 10ktpa of LiOH.

- Conventional conversion plant to produce battery quality LiOH from spodumene concentrate
- Baseload feed from Neometals' annual offtake option from Mt Marion
- Pilot scale test work confirmed battery-quality LiOH at high recoveries from run-of-mine Mt Marion concentrates
- Multi-year option with local government to lease 100 acre freehold site in new industrial estate and assistance with reagent supplies
- M+W Group have materially completed a FEED Study with results to be report March 2019
- Annual offtake option – flexibility to align development with sourcing balance of feed and better Li market backdrop
- Focus on continuing external approvals processes - feasibility study delayed.



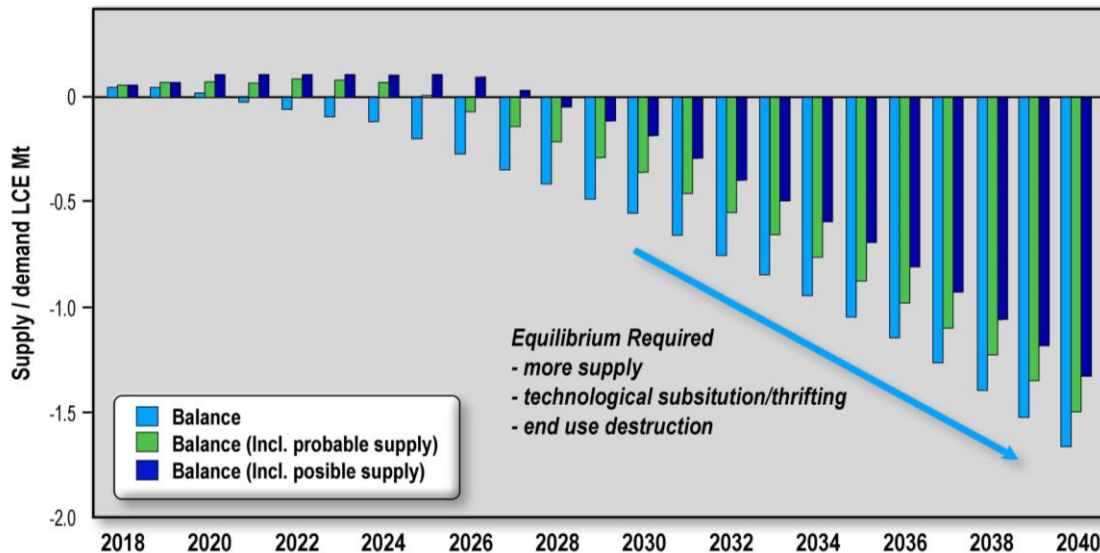
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Lithium market and pricing will determine development timing



Lithium Supply & Demand Balance



Source: SFA (Oxford)

Significant supply deficit expected to emerge mid 20's

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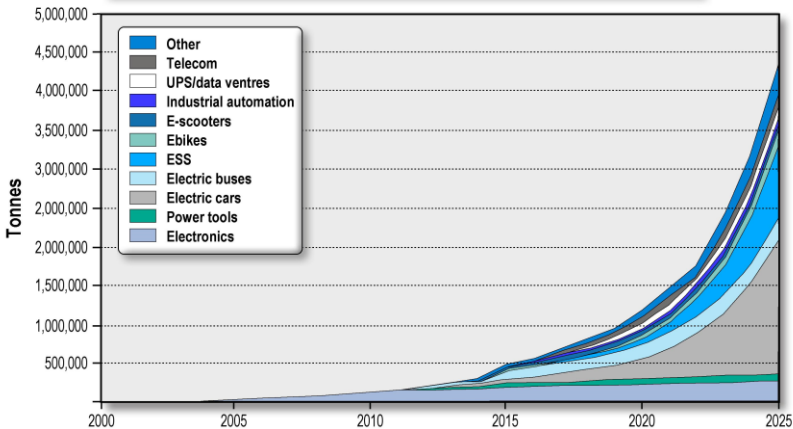


We have strong conviction in the long term
lithium battery/EV/ESS thematic....

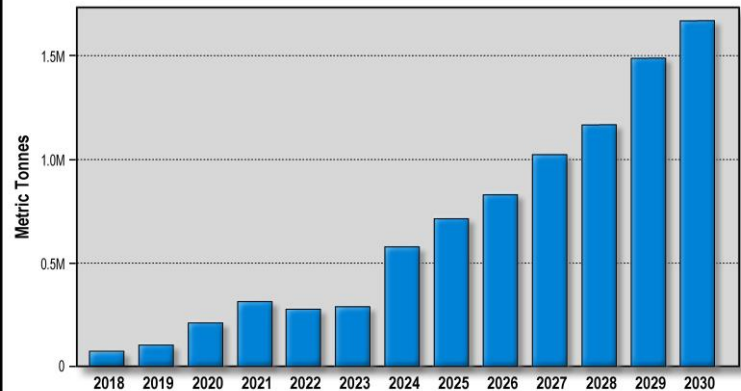
and that they wear out!



Lithium-ion Batteries Placed on the Global Market (cell level)



**Recycling Boom
Discarded Batteries Likely to Create New Global Market**



Lithium Battery Recycling work stream is high priority for 2019



Neometals is developing a sustainable technology to economically recover critical metals from spent lithium ion batteries.

- Regulation driving ethical sourcing and disposal of lithium ion batteries
- **<5% batteries truly recycled globally (ex China)**
- 2017 Scoping Study showed potential for viable process to recover cobalt from phone/laptop (LCO) batteries at **<US\$5/lb Cobalt**
- Process flowsheet now designed to recover multiple critical metals from LCO and NMC
- Operating modular Pilot Plant (100kg/pd) at SGS Canada - FEED Study on 50tpd plant to follow



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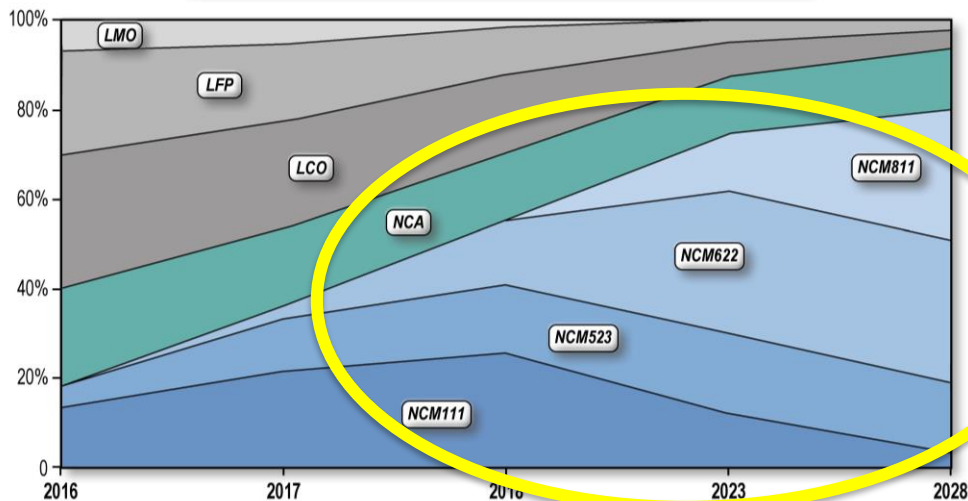


Targeting EV & electronics manufacturers with our universal recycling flowsheet



Accelerated development of universal EV battery recycling flowsheet to meet market demand as NCA/NCM volumes accelerate, new flowsheet retains flexibility to also process LCO from consumer electronics, no LFP.

Cathode Trends in Lithium Battery Megafactories



Source: Benchmark Minerals Intelligence

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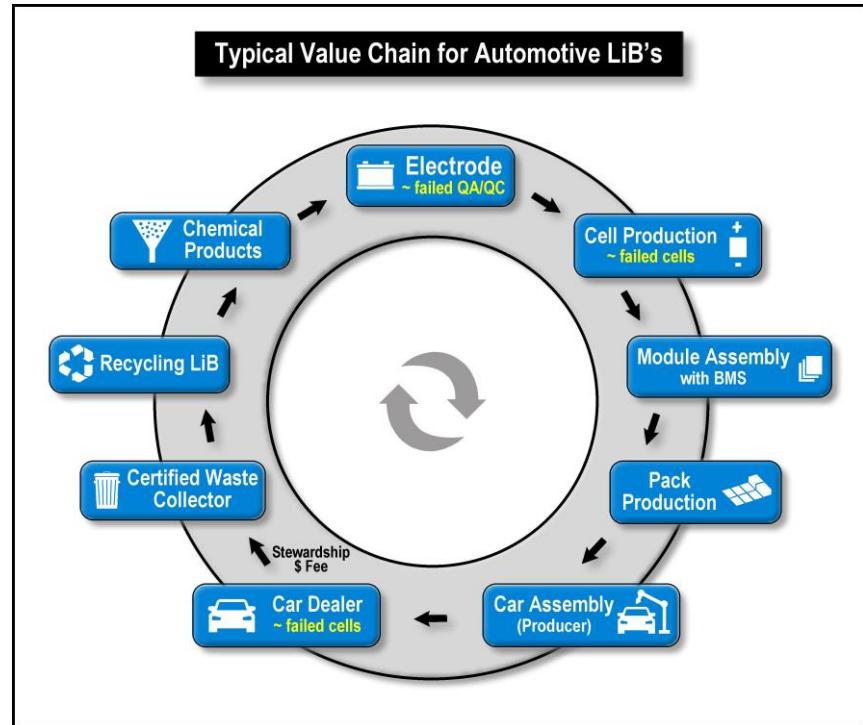


Value chain – who must recycle

Li

Pressure on companies to recycle:

- regulatory commitment
- stakeholder pressure to conduct themselves in sustainable fashion
- are committed to life cycle management in home jurisdiction – extending it across global footprint



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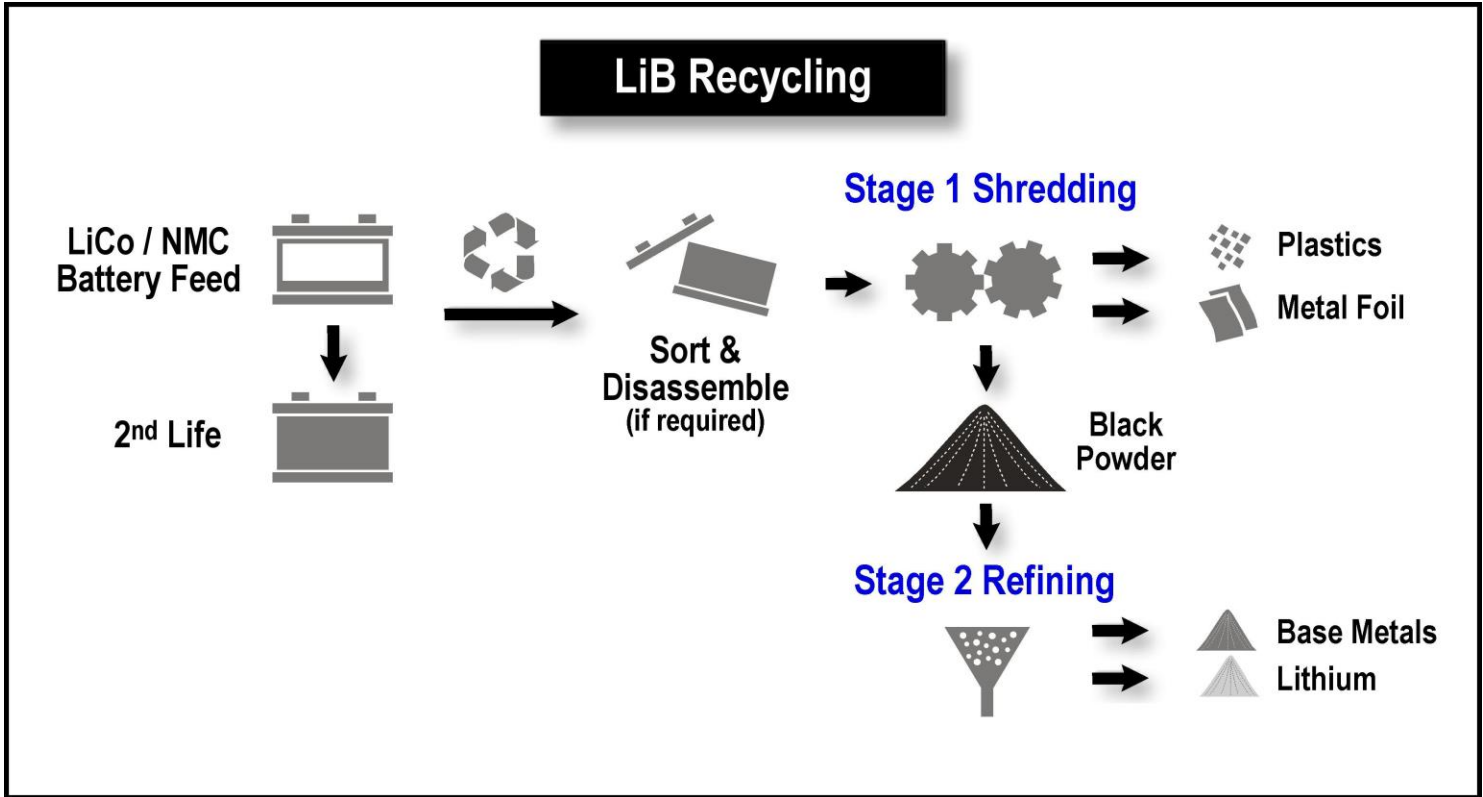
Regulation

Li

- EU regulation says the producer (i.e. vehicle manufacturer) must take back spent batteries. 100% collection, no land-filling
 - **LIB target = >50% by weight**
 - **ELV target = >85% by weight**
- US regulation says owner of battery has to pay for recycling. Landfill and incineration prohibited so effect on recycling same as EU
- Rest of world following suit
- Aggregators often need to transport to recyclers who can provide solve
- Transporting hazardous waste and insuring is the challenge



Neometals Technology



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Neometals Commercial Scale (50tpd feed) Shredder Acceptance Testing Video



Business Model



Treat multiple battery chemistries via hub and spoke model which sees stage 1 shred and turn battery feed into inert black powder which is sent to centralized stage 2 refining circuit:

Revenue generation via:

1. Provision of recycling service - fee for service and/or sale of chemical products recovered
2. JV with battery feed supplier i.e. battery manufacturer, vehicle company, waste collector
3. Technology licensing income
4. Combinations of the above

Differentiation:

- Unique flowsheet - true closed loop, high recoveries and environmentally friendly
- Flowsheet accepts broad battery chemistries
- Flexible modular approach. Stage 1 and 2 don't have to be co-located
- Bypasses many transport complications associated with hazardous waste
- Produce chemical products for battery industry rather than intermediates

Indicative Project Timeline



Running Partner / Site Selection Processes in parallel with test work and engineering programs

(*) Subject to Board Approval

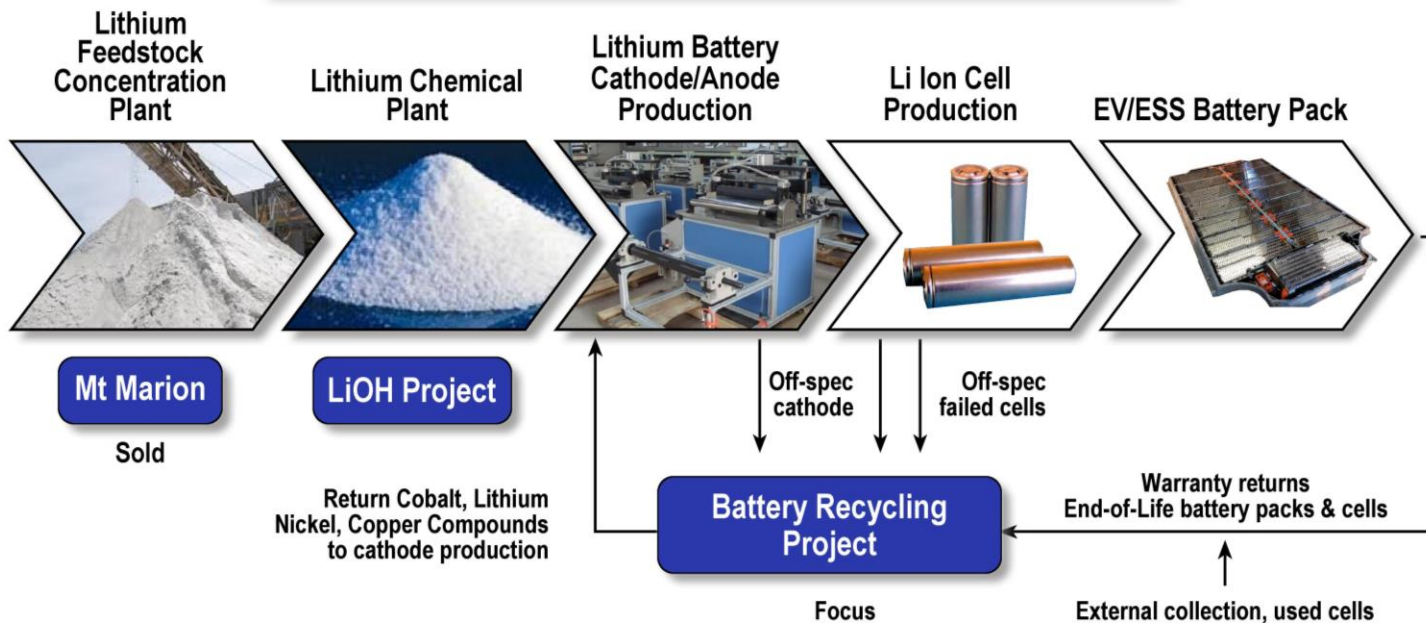
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Battery Supply Chain

Li

Neometal's Positions in the Li-Ion Battery Supply Chain



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Vanadium and Titanium

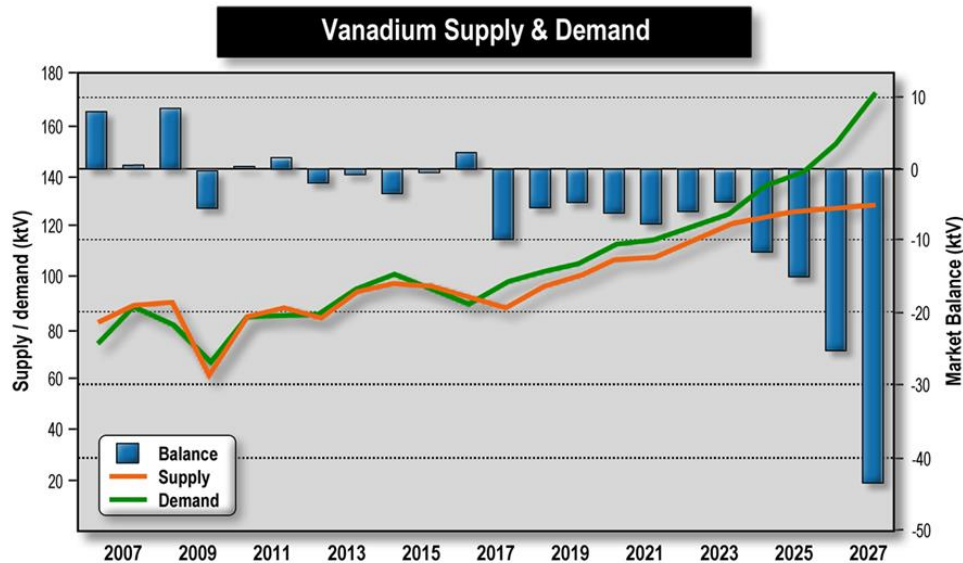
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Drivers for development of primary V

Ti/V

- China legislating increased vanadium addition for strengthening re-bar steels
- Increasing demand from energy storage and aerospace



New primary supply needed now

Source: Rushfield Minerals

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Barrambie VTM Project

Ti/V

One of the highest grade hard-rock Titanium assets and one of the largest Vanadium projects globally

- 100% Owned
- Located 80km north-west of Sandstone, WA
- A\$30M spent to date, +1,000 RC/Diamond holes drilled for ~55,000m
- Materially completed updating of 2009 DFS on standalone vanadium operation to become JORC2012 Compliant
- Awaiting extension of term for Environmental Approvals to develop vanadium operation

Most advanced vanadium project globally



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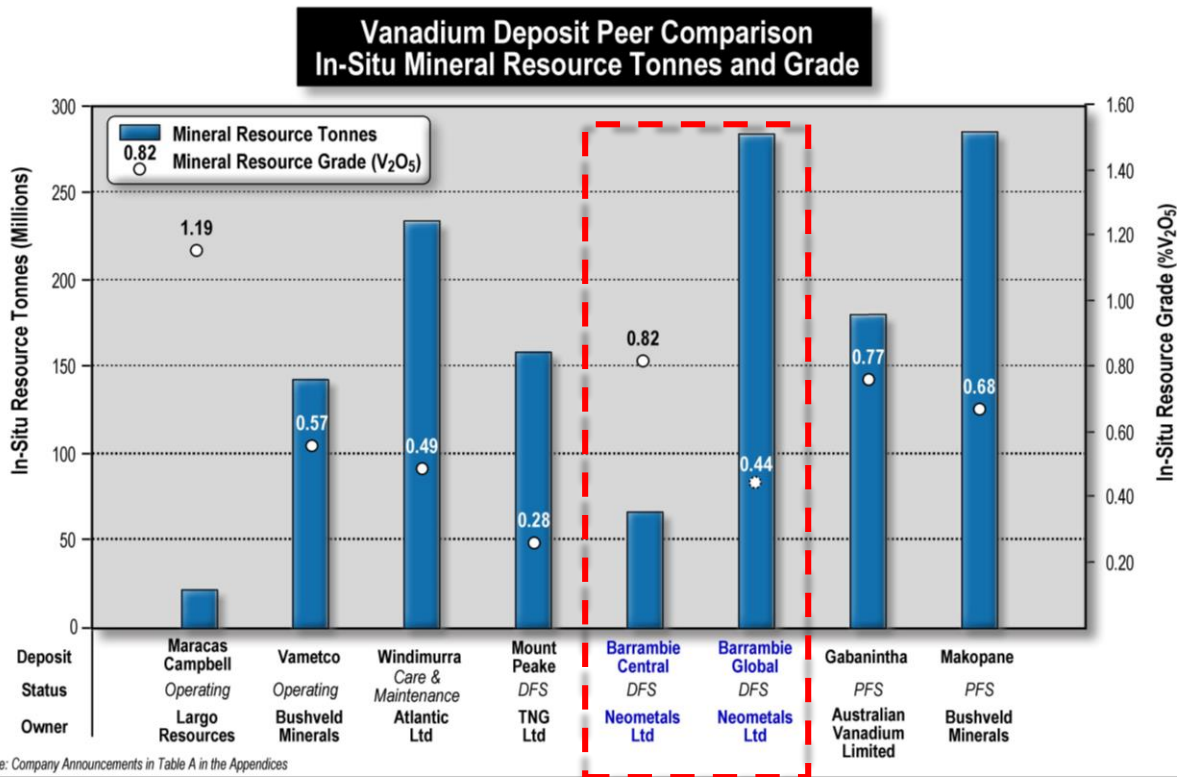


Barrambie Flythrough Video



Globally Significant Resource

Ti/V



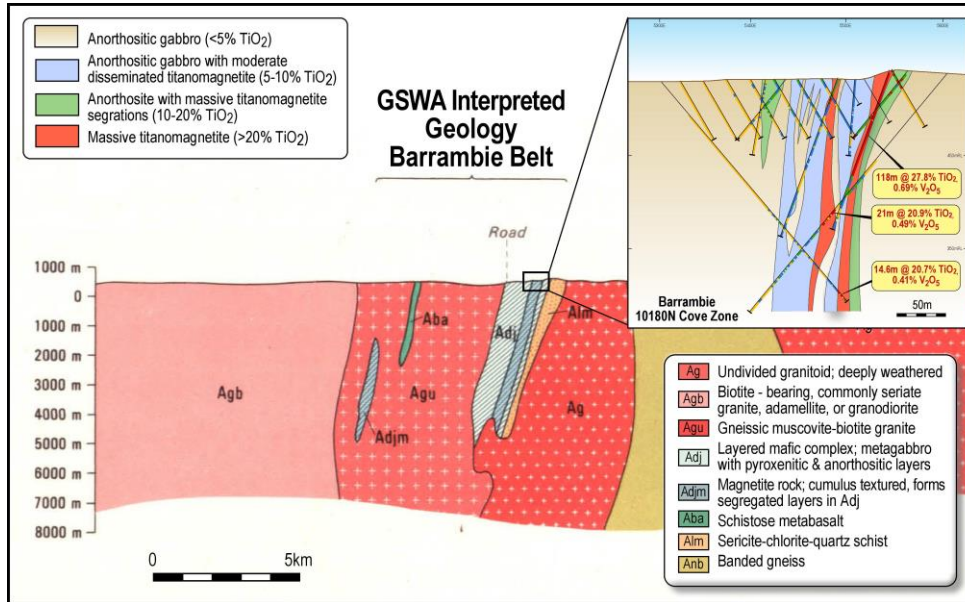
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Refer to further information on this comparison data in further information slide 43 and the Announcement titled "Neometals Commences Update of Barrambie DFS" dated 16 November 2018 and available at <https://www.neometals.com.au/reports/848-20181116BarrambieProjectCommencesUpdateofDFS.pdf>



Exploration upside

Ti/V



Exploration Target for Barramie Project, as of April 2018

Area	Tonnes (Mt)	% TiO ₂	% V ₂ O ₅
Barramie Deepes	400 - 600	6 - 10	0.3 - 0.5
Barramie North	5 - 10	5 - 8	0.4 - 0.7
Barramie South	20 - 30	7 - 9	0.3 - 0.5
Ballanholme Hills	25 - 35	5 - 7	0.3 - 0.5
Virginia Hills	20 - 30	10 - 14	0.5 - 0.7
Combined	470 - 700	6 - 10	0.3 - 0.5

Some discrepancies may occur due to rounding

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$$\text{Li} + \text{Ti/V} = \text{Nm}$$

2009 DFS Results

Ti/V

Average Annual Production

6,160 tonnes Vanadium

As 7,700t of Ferrovandium (FeV80)

Containing 11,200t V_2O_5 equivalent

Average Operating Costs

<US\$20/kg Vanadium (@ US63c FX)

Lowest Quartile

Direct Construction Costs A\$456M

Pre-commissioning, Owners Costs
and EPCM A\$173M

Total : A\$629M

Mine Life

12 years

At throughput
of 3.2 Mtpa

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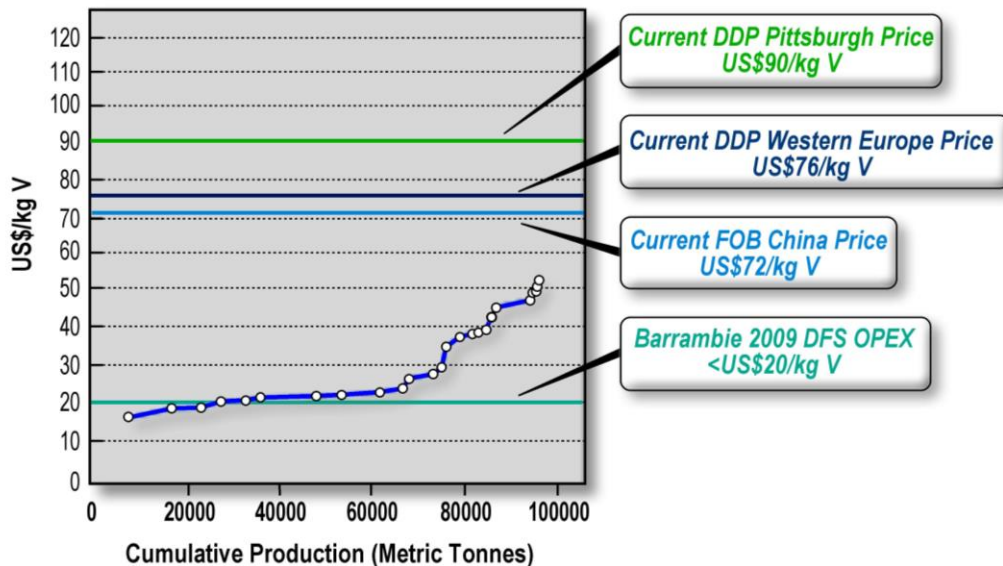
Refer to announcement titled "Barrambie Vanadium Project – DFS Completion and Outcomes"
dated 5 May 2009 and available at
<https://neometals.com.au/announce-blog.php?id=267>



Globally competitive cash costs

Ti/V

Ferrovanadium Cash Cost Curve 2018/19



Source: TTP Squared, Inc (Cash costs), Metal Bulletin 15/2/2019 (Prices)

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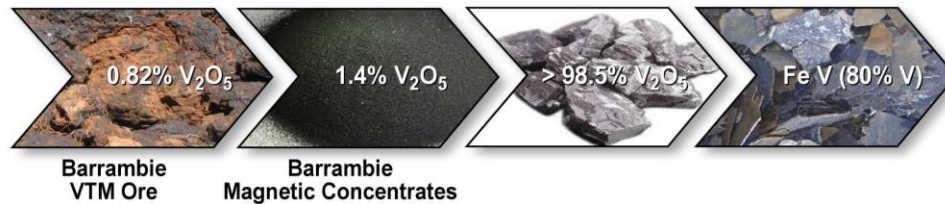


Products, Players & Applications

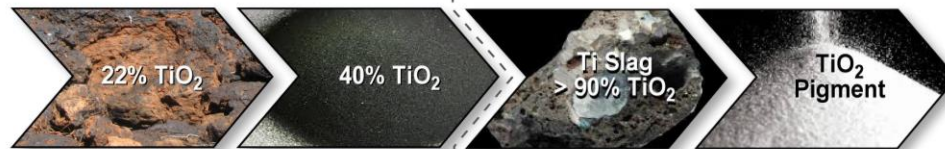
Ti/V



CENTRAL BANDS



DFS Battery Limit



EASTERN BAND

DFS Battery Limit



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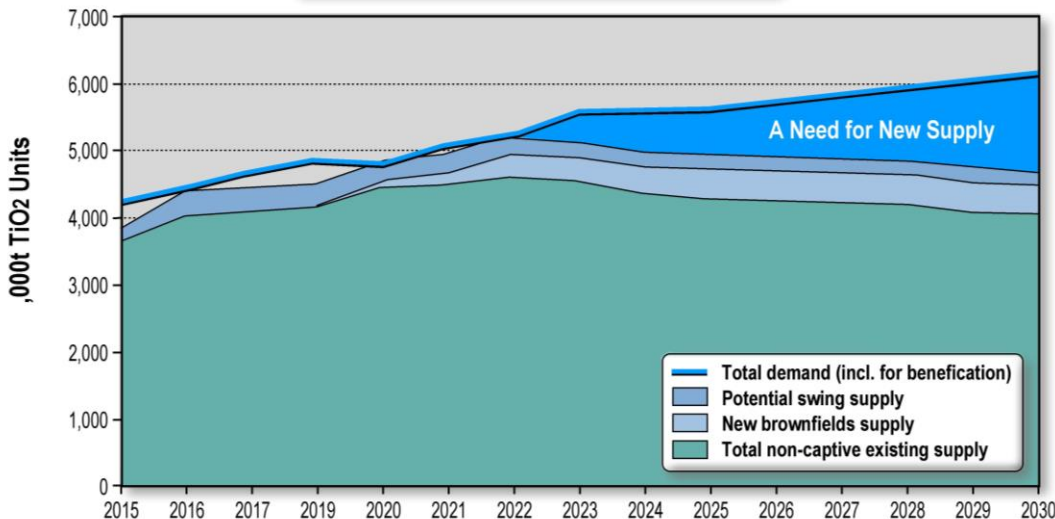


Drivers for development of secondary Ti

Ti/V

- Barrambie Eastern Band is worlds second highest grade deposit at 21% TiO_2
- Barrambie Mineral Resource contains +25 million tonnes of TiO_2

Titanium Supply & Demand Balance



Significant supply deficit expected to emerge early 20's

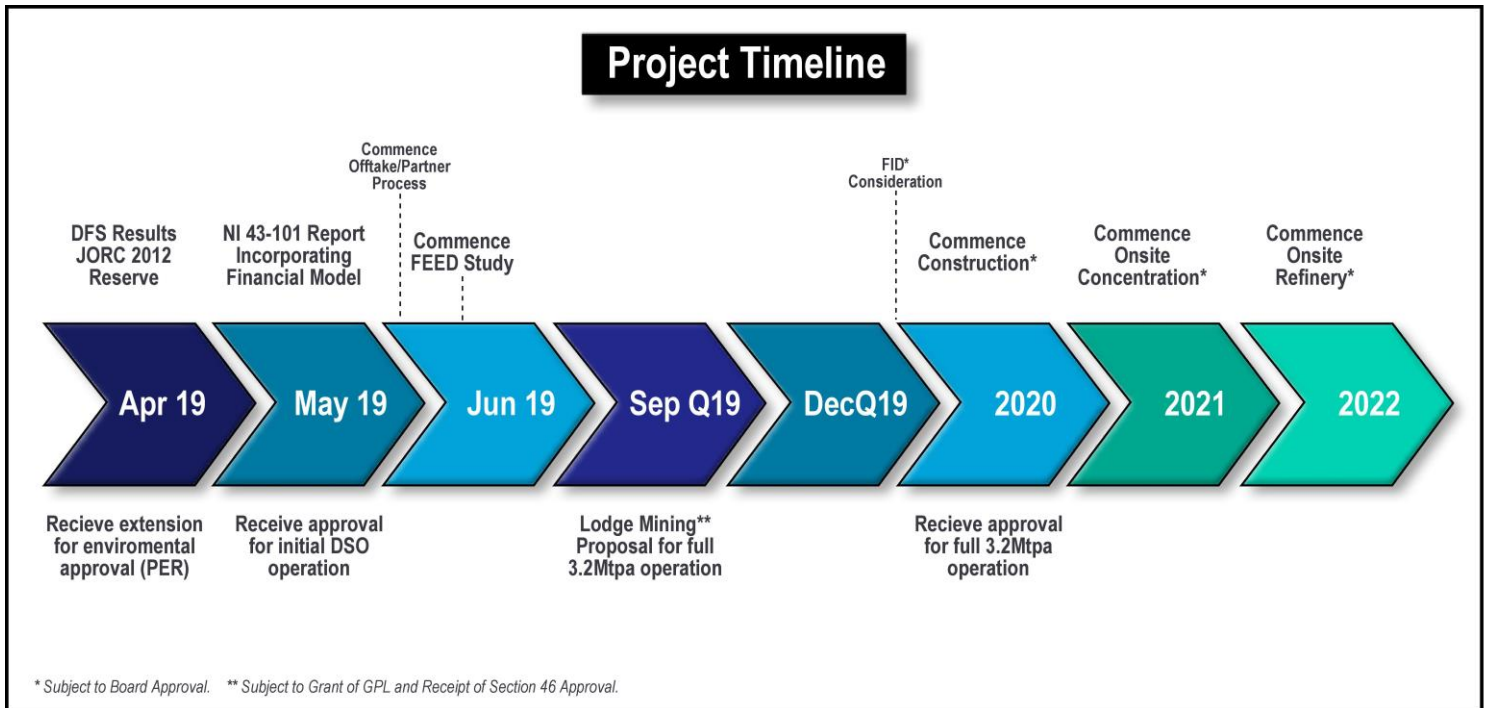
Source: Base Resources

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Indicative Project Timeline

Ti/V



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All the right elements



Company Highlights

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- History of de-risking development with strong operating and offtake partners
- Delivered A\$34M to shareholders over last three financial years
- Developing secure supplies of globally-relevant commodity feedstocks from Tier-one assets
- Clear path to grow margins via vertical integration and innovative cost reduction
- Team with exploration, development and production track record
- +A\$130M to pursue growth – no change in strategic rigour post sale of Mt Marion, continue the disciplined evaluation and capital allocation to develop assets



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SUPPORTING INFORMATION

Neometals Board of Directors

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Steven Cole
Chairman

Steven has 35 years of professional, corporate and business experience through senior legal consultancy, as well as a range of executive management and non executive appointments. His extensive boardroom and board sub-committee experience includes ASX listed, statutory, proprietary and NFP organisations covering the industrial, financial, educational, professional services, health and resources sectors.



Chris Reed
Managing Director

Chris started in the mining industry in 1990 and co-founded Reed Resources in 2001. Chris holds a Bachelor of Commerce from the University of Notre Dame and a Graduate Certificate in Mineral Economics from WA School of Mines. He is a Member of the AusIMM and immediate past Vice-President of the Association of Mining & Exploration Companies.



David Reed
Non-Executive Director

David was a director and Chairman of CIBC Australia Limited. David has been a prospector, former secretary of the Amalgamated Prospectors and Leaseholders Association and private mine owner. In 1984 David founded Mt. Martin Gold Mines NL, which with partner Newmont Australia developed the million ounce New Celebration Gold Mine. In recognition of his service to the community he was awarded the Order of Australia Medal in 2002.



Natalia Streltsova
Non-Executive Director

Natalia Streltsova is a PhD qualified chemical engineer with +25 years minerals industry experience, including over 10 years in senior technical and corporate roles with mining majors - WMC, BHP and Vale. Dr Streltsova has considerable international experience covering project development and acquisitions in South America, Africa and the Former Soviet Union. She is currently a Non-Executive Director of Western Areas Limited and Parkway Minerals NL.

Neometals Board of Directors Cont'd

Nm



Douglas Ritchie

Non-Executive Director

Doug Ritchie is a senior resources industry executive with over 35 years experience, including over 28 years working with Rio Tinto. Mr Ritchie has considerable international corporate experience, including in China. He has been a director of various ASX and HKSE listed companies as well as research and commercialisation organisations



Jennifer Purdie

Non-Executive Director

Jennifer holds the position of CEO for Adani Australia Renewables. She brings extensive experience to Avanti from roles in engineering, senior technology, strategy and operations for leading global mining companies. She is a PhD qualified chemical and material engineer and holds an Executive MBA. She is a member of Women in Mining and Resources, a fellow of the Institution of Chemical Engineers and a graduate of the AICD.



Les Guthrie

Non-Executive Director

Mr Guthrie B.Sc (Engineering and Marketing) brings +40 years of experience to Neometals including senior global roles within corporate and project management and capital program development. He was VP Projects for BHP Billiton, Head of Projects and President LNG for BG Group, President of Aker Kvaerner Inc. and he was also the MD of Kvaerner Australia. Les is a NED of the John Grill Centre for Project Leadership.



Jason Carone

CFO & Company Secretary

Jason holds a Bachelor of Commerce in Accounting and Business Law from Curtin University and is a member of the Institute of Chartered Accountants, and Chartered Secretaries. He has over 20 years' experience in accounting, company administration in Australia and South East Asia across a broad range of industries. Jason has been with Neometals 10 years.

Lithium Executive Team



Mike Tamlin
COO

Mike has over 35 years experience, including over 20 years in the lithium industry and was responsible for developing the spodumene trade between Australia and China. Former positions include GM Marketing of Sons of Gwalia and GM China of Galaxy Resources. He has a degree in Metallurgy and is also currently a director of Frontier Lithium.



Greg Hudson
GM - Exploration

Greg has more than 18 years' experience in all facets of hard rock geology, including exploration, project evaluation, mineral resource development and mining. He has extensive minerals experience across Gold, Iron Ore, Lithium, Tantalum and other base metals. Greg was previously the General Manager Geology for Mount Gibson Iron and the Chief Geologist at BC Iron. He holds a Bachelor of Science with Honours and post graduate qualifications in Applied Finance and Mineral Economics.



Gavin Beer
GM – Process & Metallurgy

Gavin is a metallurgist with 29 years of experience in operational and technical roles. His extensive experience through multiple commodities around the world has been gained through various roles, the most recent being General Manager Metallurgy of Peak Resources Limited, Gavin has also run a successful consultancy since 2012 specialising in flowsheet development and optimisation for rare earths, niobium and lithium technology metals.



Jeremy McManus
GM – Commercial & IR

Jeremy has nearly 20 years experience in the resources and technology minerals sectors. Prior to Neometals, Jeremy was the Commercial Manager for advanced materials company Talga Resources. Holding a MBA and postgraduate qualifications in applied finance and corporate governance, Jeremy is versed in strategy management, technology commercialisation, capital markets and IP management.

Titanium-Vanadium Executive Team



Darren Townsend
CDO

Darren is a Mining Engineer with 20 years' mining and corporate experience. Extensive experience in managing ASX and TSX listed companies. East African experience incl. development of tantalum mines in Australia and Mozambique and resource drill out and permitting a niobium project in Kenya.



David Robinson
GM – Metallurgy & IP

New appointment commencing late November. Responsible for supervising all metallurgy programs, project technology development and managing research programs and associated IP protection.



Paul Wallwork
GM – Product Development & Marketing

Paul has nearly 30 years of experience in technical sales, international marketing and management roles. Most recently, in the role of Trading Manager at Iluka Resources, Australia's largest mineral sand producer. In the five-year period from 2008 to 2013 Mr Wallwork held the roles of Marketing Manager and General Manager Marketing at Talison with responsibility for export sales of tantalum, tin and lithium minerals.



Drew Bradshaw
*GM – Mining
(seconded from
ADAMAN Resources)*

Drew is a Mining Engineer with 12 years' operations experience in both Underground and Open Pits focused on mine planning and operations management. Most recently developed and managed the Karari / Whirling Dervish Undergrounds for Saracen Mineral Holding.

Barrambie JORC Mineral Resource

Ti/V

Global Resource as at 17 April 2018¹

	Tonnes (M)	TiO ₂ (%)	V ₂ O ₅ (%)
Indicated	187.1	9.61	0.46
Inferred	93.0	8.31	0.40
Total	280.1	9.18	0.44

High Grade V₂O₅ Resource (at 0.5% V₂O₅ cut-off)²

	Tonnes (M)	TiO ₂ (%)	V ₂ O ₅ (%)
Indicated	49.0	16.93	0.82
Inferred	15.9	16.81	0.81
Total	64.9	16.90	0.82

High TiO₂ Resource (14% TiO₂ cut-off)²

	Tonnes (M)	TiO ₂ (%)	V ₂ O ₅ (%)
Indicated	39.3	21.18	0.65
Inferred	14.3	21.15	0.58
Total	53.6	21.17	0.63

⁽¹⁾ Based on Cut-off grades of ≥0% TiO₂ or ≥.2% V₂O₅

⁽²⁾ The high-grade titanium and vanadium figures are a sub-set of the total Mineral Resource. These figures are not additive and are reporting the same block mode volume but using different cut-off grades.

Refer to Neometals' ASX release dated 17 April 2018 titled 'Updated Barrambie Mineral Resource Estimate' available at www.neometals.com.au/reports/2018-04-17-5645-BarrambieP.pdf

Vanadium Deposit Comparison Data

Supporting Slide 28

Ti/V

Vanadium Deposit Peer Comparison In-Situ Mineral Resource Tonnes and Grade

Company - Deposit	Status	Measured		Indicated		Inferred		Total	
		Mt	% V ₂ O ₅	Mt	% V ₂ O ₅	Mt	% V ₂ O ₅	Mt	% V ₂ O ₅
Largo - Cambell	Operating Mine	18.08	1.19	1.7	1.28	1.65	1.2	21.43	1.19
Bushveld - Vametco	Operating Mine	-	-	61.5	0.55	80.8	0.59	142.4	0.57
Atlantic - Windimurra	Care & Maintenance	48	0.48	136	0.5	49	0.47	235	0.49
TNG - Mount Peake	DFS	120	0.29	20	0.28	22	0.22	160	0.28
Neometals - Central	Updating DFS	-	-	49	0.82	15.9	0.81	64.9	0.81
Neometals - Global	Updating DFS	-	-	187.1	0.46	93	0.4	280.1	0.44
AVL - Gabanintha	PFS Complete	10.1	1.1	24	0.63	141.4	0.77	175.5	0.77
Bushveld - Makopane	PFS Complete	-	-	63	1.32	234	0.5	297.2	0.68

Sources:

i SEDAR: TSX: LGO - Largo Resources Ltd "Independent Technical Report" 8 November 2017

ii LSE Announcement: BMN "Operational Update Vametco Mine 18/11/2017"

iii <https://atlanticptyltd.com.au/projects/windimurra/geology-reserves-resources>

iv ASX Announcement: TNG "Mount Peake JORC Resource update" 18/3/2013

v ASX Announcement: NMT "Barramie Project - Mineral Resource Update" 17/4/2018

vi ASX Announcement: AVL "Resource Update for Gabanintha Vanadium Deposit" 5/7/2018

vii LSE Announcement: BMN "Vanadium Project - Significant Mineral Resource Update" 12/11/2014

Neometals

Li + Ti/V = Nm

Barrambie JORC Exploration Target

Ti/V

Exploration Target for Barrambie Project, as of April 2018

Area	Tonnes (Mt)	% TiO ₂	% V ₂ O ₅
Barrambie Deeps	400 - 600	6 - 10	0.3 - 0.5
Barrambie North	5 - 10	5 - 8	0.4 - 0.7
Barrambie South	20 - 30	7 - 9	0.3 - 0.5
Ballanhoe Hills	25 - 35	5 - 7	0.3 - 0.5
Virginia Hills	20 - 30	10 - 14	0.5 - 0.7
Combined	470 - 700	6 - 10	0.3 - 0.5

Some discrepancies may occur due to rounding