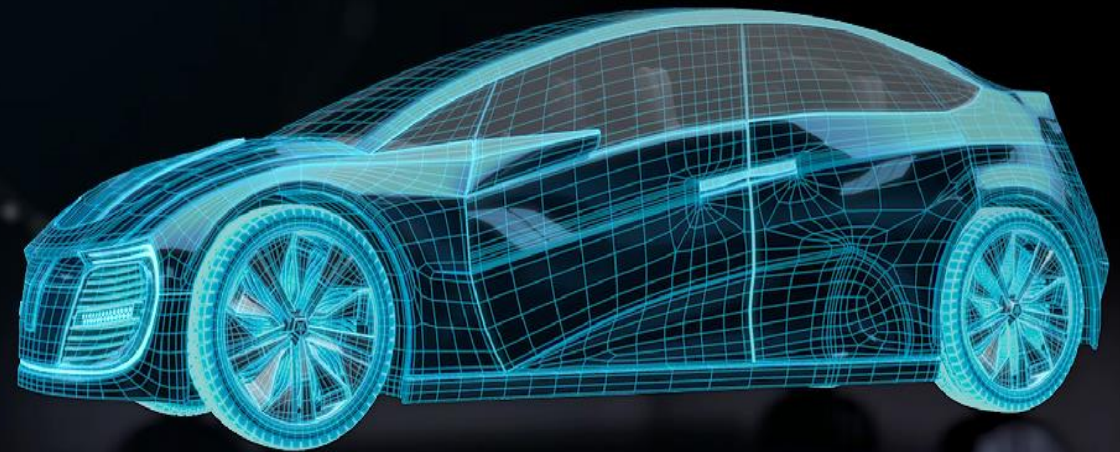




BUILDING WA'S NEXT MAJOR MANGANESE OPERATION

INVESTOR PRESENTATION - JULY 2022

ASX:FRB



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COMPETENT PERSONS STATEMENT

The information in this report that relates to Mineral Resources is based on information compiled by Mr Mark Pudovskis and Mr Aaron Meakin. Mr Mark Pudovskis is a full-time employee of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Aaron Meakin is a full-time employee of CSA Global Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Mark Pudovskis and Mr Aaron Meakin have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Mark Pudovskis and Mr Aaron Meakin consent to the disclosure of the information in this report in the form and context in which it appears. Mr Mark Pudovskis assumes responsibility for matters related to Sections 1 and 2 of JORC Table 1, while Mr Aaron Meakin assumes responsibility for matters related to Section 3 of JORC Table 1.

Dr Parry has sufficient experience of the ore sorting test work under consideration to be aware of problems that could affect the reliability of the data and to qualify as a Competent Person 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. Dr Parry consents to the inclusion in this report of the matters based on information in the form and context in which they appear.

EMERGING MANGANESE DEVELOPER

229Mt in Resources across Project Portfolio

58.7Mt @10.4% Mn in Indicated Resource & growing

Completion of Scoping Study at flagship Oakover Project, with results confirming outstanding long-term potential as a Manganese hub

Successful metallurgical testwork programs highlight commercial concentrate product can be produced at Oakover

Targeting both manganese concentrate and high purity manganese sulphate

Strong and growing manganese demand from battery minerals and infrastructure (steel) markets

Successfully advancing critical ESG objectives in alignment with development of Oakover

1 Refer to ASX Release 10th March 2022 "Game Changing Resource Upgrade at Oakover" for full details

2 Refer to ASX Release 20 July 2022 "Impressive results from Manganese Concentrate Scoping Study at Oakover" for full details

FLAGSHIP OAKOVER PROJECT

- ✓ Located 85km East of Newman
- ✓ Characterised by near surface / shallow mineralisation
- ✓ 400 holes for 20,090 m completed through historical exploration and recent drilling by Firebird
- ✓ Firebird's maiden 233-hole, 10,145m reverse circulation percussion drill program resulted in a significant Resource upgrade
- ✓ **108 Mt increase in Mineral Resource to 172 Mt at 9.9% Mn**
 - ✓ 170% increase from historical resource
 - ✓ 58.7Mt @10.4% Mn Indicated Resource
 - ✓ 80.7Mt Resource Defined as Massive & Supergene
- ✓ Large number of exploration prospects remain within tenement, providing excellent exploration growth upside
- ✓ Significant metallurgical test work undertaken, with excellent results achieved
- ✓ Robust and impressive Scoping Study completed, with significant NPV growth potential

* Refer ASX announcement "Game Changing Resource Upgrade at Oakover" dated 10/3/2022

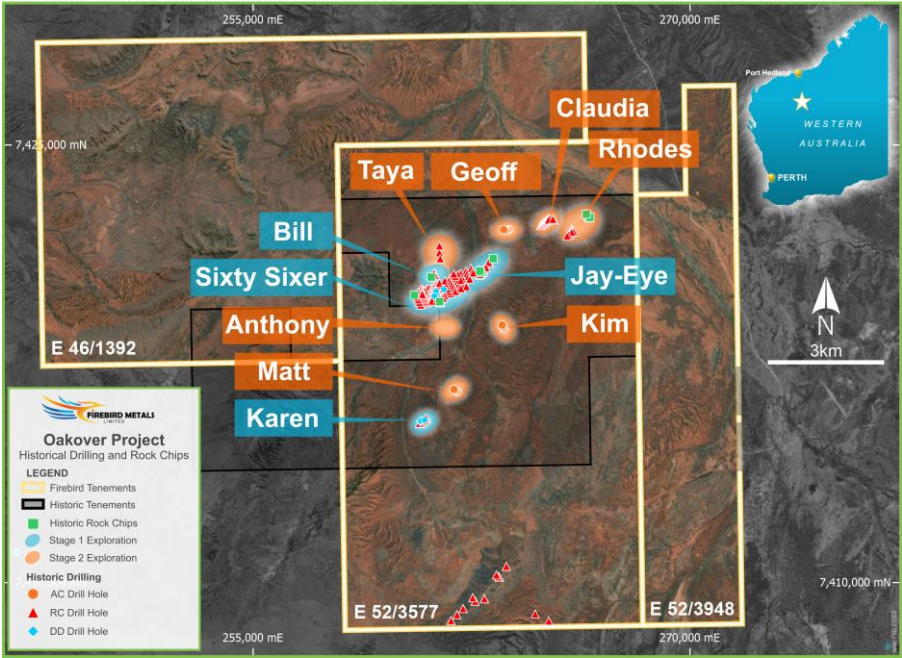
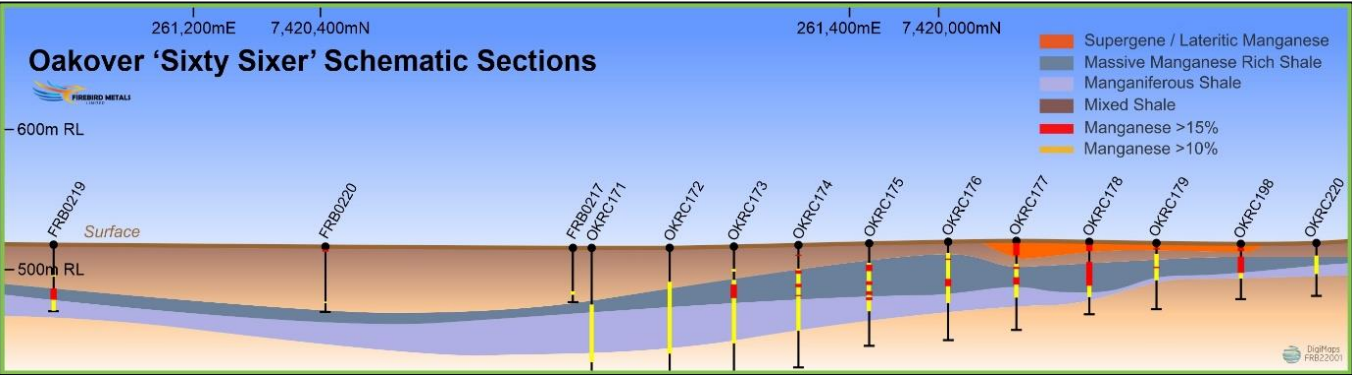


OAKOVER MINERAL RESOURCE ESTIMATE

Deposit underpinned by near-surface, gently dipping geology and multiple processing options, providing an exciting production pathway to deliver superior value to shareholders

Area	Mineral Resource classification	Tonnes (Mt)	Mn (%)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	LOI (%)
Sixty Sixer	Indicated	58.7	10.4	9.2	40.2	10.1	0.10	13.2
Sixty Sixer	Inferred	50.7	9.6	8.5	38.9	9.9	0.11	15.0
Sixty Sixer	Sub-Total	109.4	10.1	8.9	39.6	10.0	0.11	14.1
Jay Eye	Indicated	-	-	-	-	-	-	-
Jay Eye	Inferred	22.0	9.5	8.5	40.0	9.8	0.11	14.2
Jay Eye	Sub-Total	22.0	9.5	8.5	40.0	9.8	0.11	14.2
Karen	Indicated	-	-	-	-	-	-	-
Karen	Inferred	40.9	9.5	9.3	42.7	10.5	0.11	12.0
Karen	Sub-Total	40.9	9.5	9.3	42.7	10.5	0.11	12.0
Oakover	Indicated	58.7	10.4	9.2	40.2	10.1	0.10	13.2
Oakover	Inferred	113.6	9.6	8.8	40.4	10.1	0.11	13.8
Oakover	Grand Total	172.3	9.9	8.9	40.4	10.1	0.11	13.6

OAKOVER RESOURCE TABLE



OAKOVER METALLURGICAL TEST WORK

Work Completed – Ore Sorting

- Excellent **ore sorting** results, with beneficiated product grades up to 31% Mn (11.4% Mn feed)
- **Importance of multi-sensor sorting** (incl XRT which approximates DMS density upgrade), not dependent on colour and total surface cleaning
- Screening and scrubbing is a key focus of future studies to alleviate feed prep issues.

Work Completed – Gravity Separation

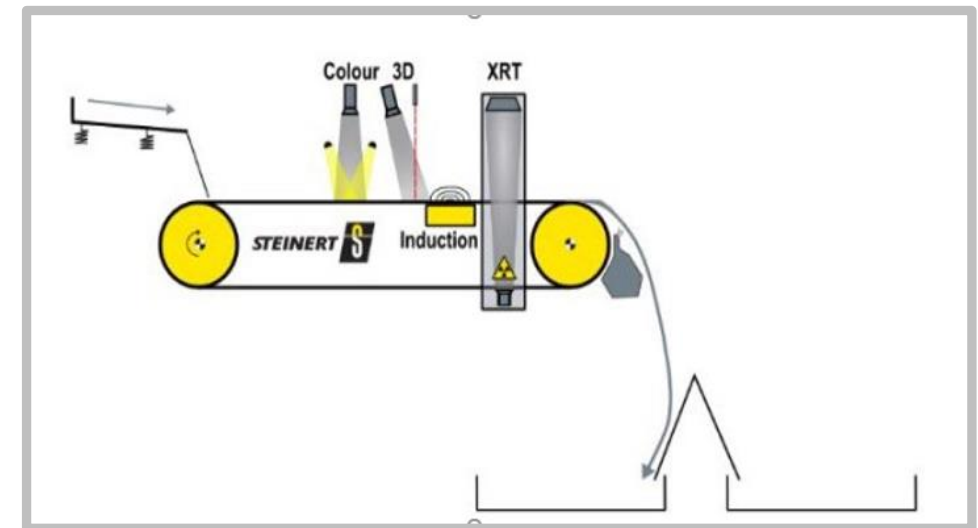
- Preliminary **heavy liquid beneficiation** test work on -8+1 mm material delivered excellent beneficiated grades up to 32.8% Mn

Key Takeaways

- **Successful proof-of-concept ore sorting trials and preliminary heavy liquid test work from diamond core**
- **Results provide a high-level of confidence that a commercial product can be produced at Oakover**

Further Work Underway

- Larger scale bulk metallurgical test work program underway, with further work planned (completion expected by H2 2022)
 - Ore Sorting, Scrubbing Optimisation, Gravity Separation incl DMS



Refer ASX release "Very Positive initial Ore sorting results, Oakover Drilling" dated 11/10/21 and "Oakover Metallurgical Test Work update" dated 17/1/22

IMPRESSIVE SCOPING STUDY FINANCIALS

NPV@8% ~A\$329m

IRR of 47%

Payback Period of <3 years

**Average annual
EBITDA ~A\$72.7m**

Total CAPEX \$A143.8m
A\$73.4M for plant
A\$70.4M for renewable power plant,
road upgrades and other
infrastructure

SCOPING STUDY RESULTS

Mining & Production Profile (Based on MRE at Sixty Sixer)

- Processing plant throughput of ~4 Mt annually, to produce ~900 kt of 30% Mn concentrate annually
- 10-year Life of Mine
 - First ~6.5 years of production based on 30.5Mt Indicated Resource
 - Last ~3.5 years based on 11.9Mt Inferred Resource
- Low mine strip ratio of 0.9:1

Production Options

- Option 1: Ore sorting lump material (-50+8mm) & Jigging of the fine fraction (-8+1 mm) (Base Case)
- Option 2: Contemplates conventional crushing to 8mm to and gravity separation

Potential Near-Term Upside to NPV

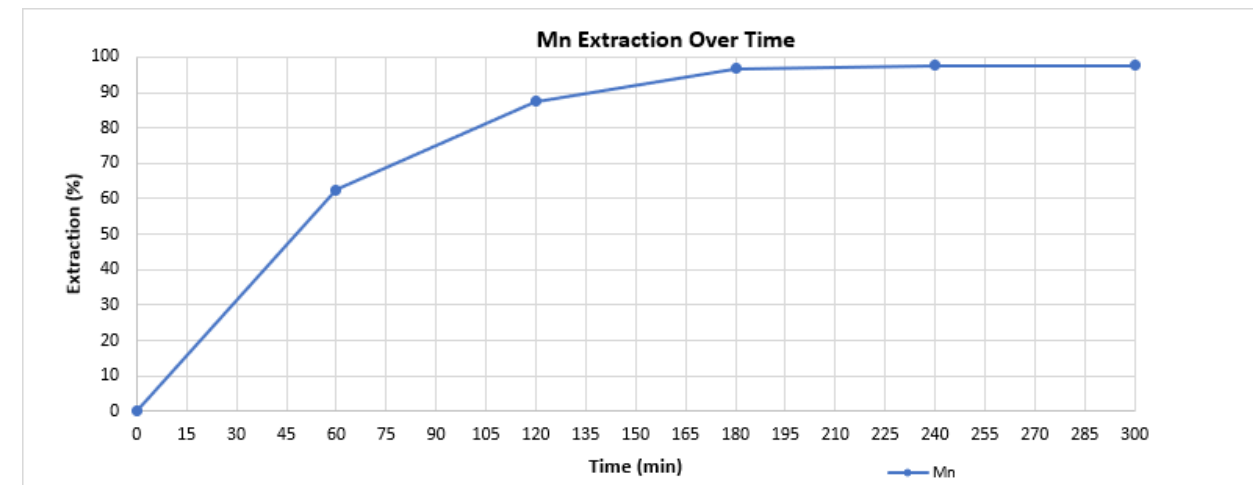
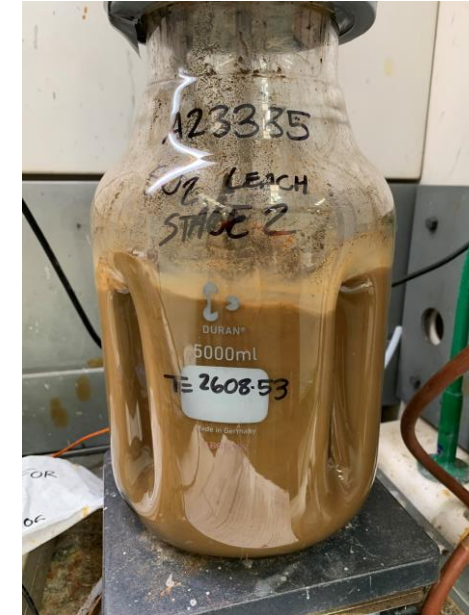
- Significantly extend Life of Mine through conversion of Inferred Resource to Indicated at Jay-Eye and Karen
 - Combined prospects host 62.9Mt of Inferred Resources
- Infill drilling at Jay-Eye and Karen to be completed in 2022
- High level of confidence in increasing Indicated Resources
 - Following strong success of 2021 infill drilling program, which converted 96% of Sixty Sixer Inferred Resource to Indicated by incorporating Hill 616

1 Refer to ASX Release 10th March 2022 "Game Changing Resource Upgrade at Oakover" for full details

2 Refer to ASX Release 20 July 2022 "Impressive results from Manganese Concentrate Scoping Study at Oakover" for full details

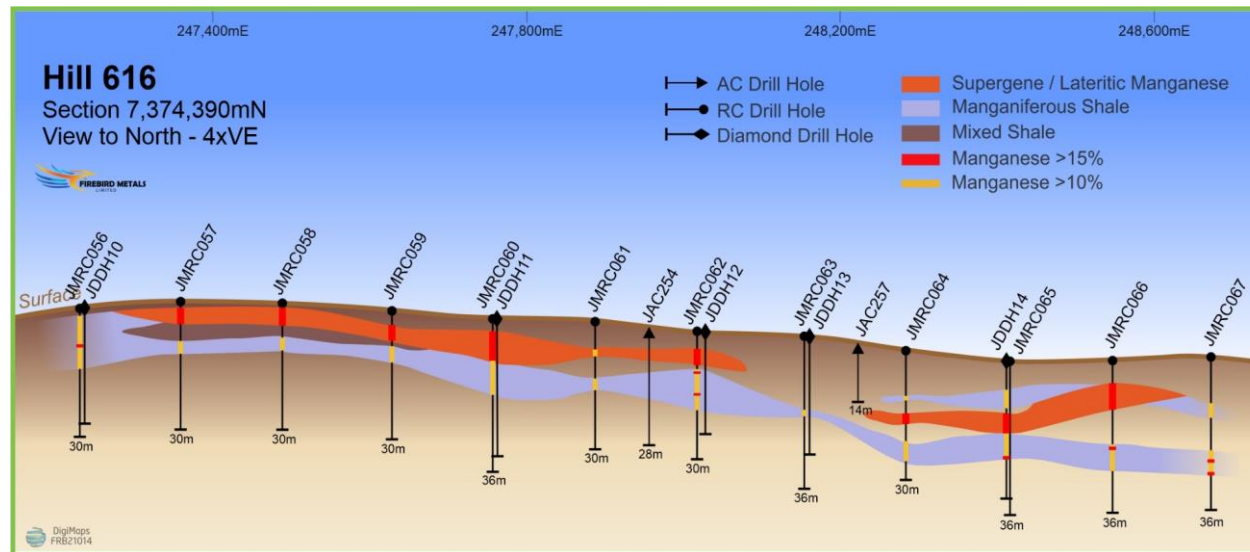
HIGH-PURITY SULPHATE SCOPING STUDY

- Targeting production of High Purity Manganese Sulphate Monohydrate (HPMSM) for the Battery Industry
- Sulphate test work commenced , with completion expected by H2 2022, key results include:
 - Amenable to Reductive Leaching using SO₂ with excellent initial leach results
 - Achieving outstanding 93-97% Mn extraction in 4 hours at 75°C
 - Heat generated by reaction
 - Extremely high Mn solubility - Mn concentrations of 100-140 g/l in PLS
 - Typical impurities (Fe, K, Al, Ca, Mg, etc) require removal before crystallisation
- Following completion of sulphate test work, Firebird will commence a Scoping Study, with results expected in late Q4 2022, Early Q1 2023

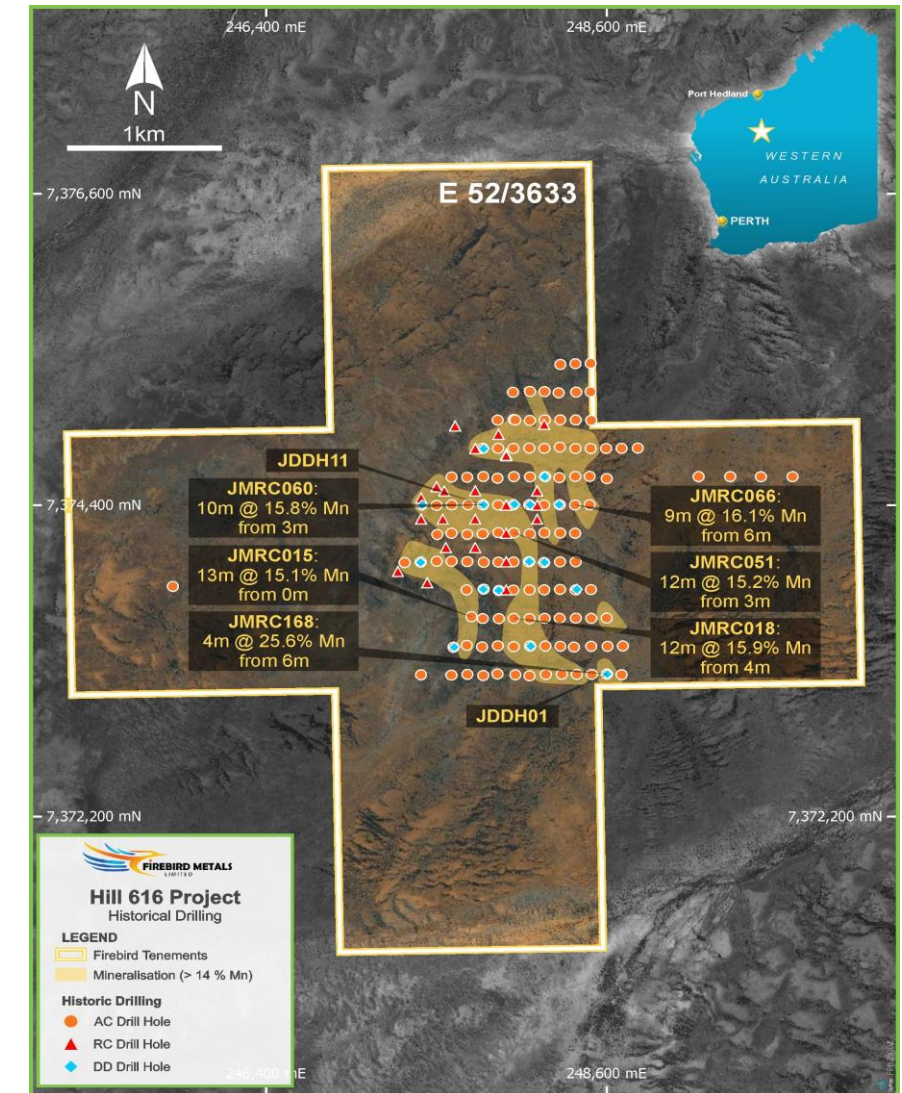


HILL 616 PROJECT – EXPLORATION GROWTH

- ✓ 35km south of Oakover
- ✓ Shallow gently dipping geology, similar to Oakover
- ✓ Historical drilling of 116 holes for 4,900m over a strike of 2.2 km
- ✓ **57.5 Mt @12.2% Mn Inferred Mineral Resource**



Zone	Mineral Resource Classification	Tonnes (Mt)	Mn (%)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)
Manganiferous shale	Inferred	49.3	11.4	17.3	40	8.5	0.13
Supergene manganese	Inferred	8.1	17.4	16.8	30.1	9.4	0.09
Grand Total	Inferred	57.5	12.2	17.2	38.6	8.6	0.13



Source: Firebird ASX announcement "Hill 616 Technical Review Complete, CSA Global engaged for Resource Work" dated 11/11/21 and "Maiden Resource at Hill 616" dated 1/12/21

MANGANESE MARKET

Manganese Sulphate



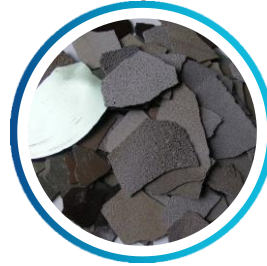
EMD



BATTERIES

STEEL

EMM



SiMn



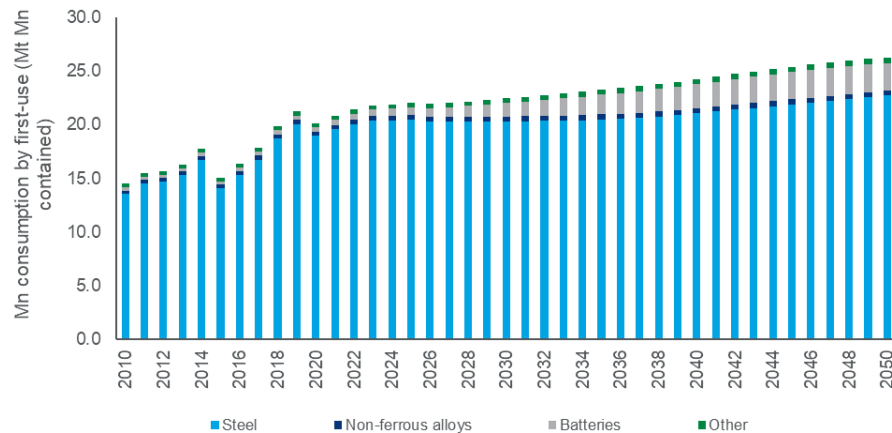
MLC FeMn



HCFeMn

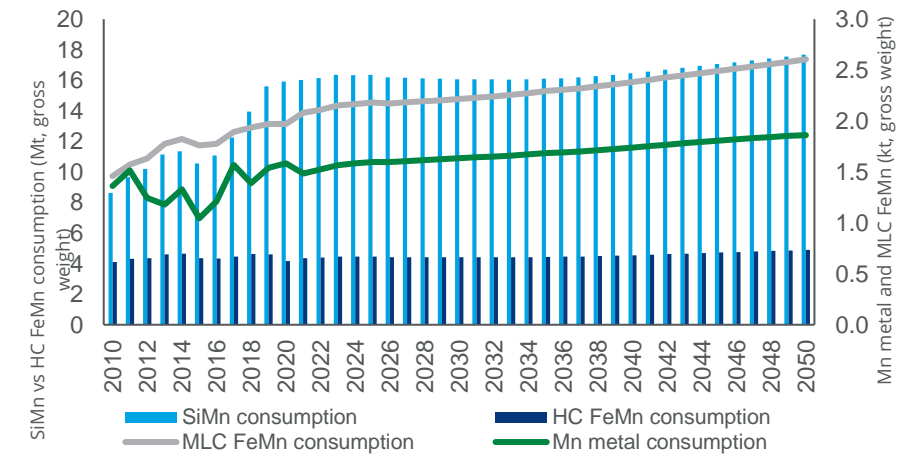


Mn consumption by first-use (Mt Mn contained)



- ✓ SiMn largest manganese alloy market
- ✓ Manganese concentrate to be produced from Oakover suitable for SiMn production

SiMn vs HC FeMn consumption (Mt, gross weight)



Source: Wood Mackenzie, AlloyConsult

The foregoing graph was obtained from Bulk Steel Alloys, a product of Wood Mackenzie, see disclaimer

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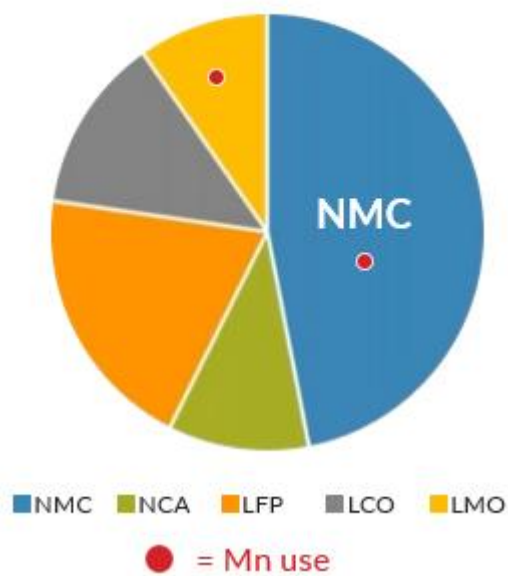
LI-ION BATTERIES

UNDERSTANDING THE MANGANESE POTENTIAL

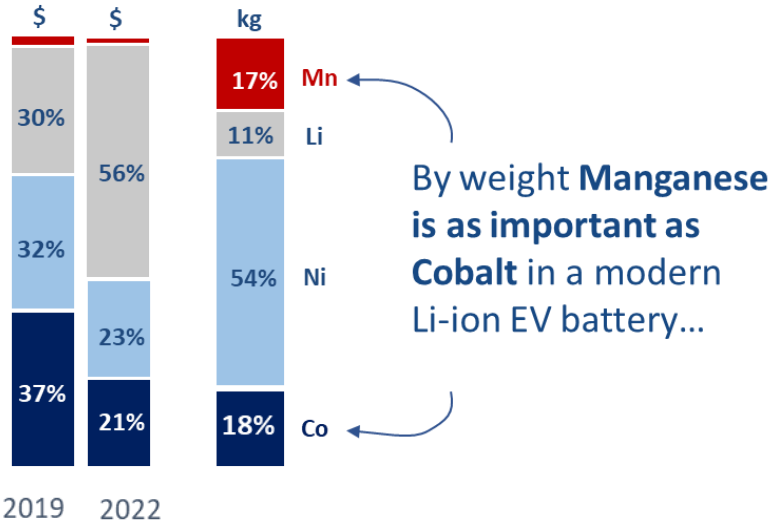
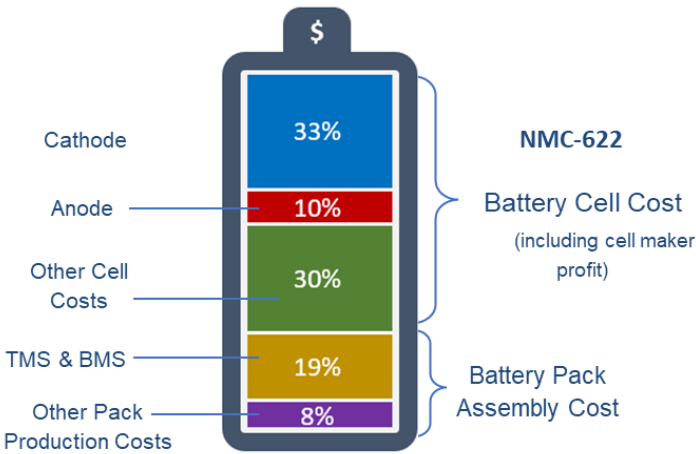
NMC (Nickel, Manganese & Cobalt) is the dominant EV Li-ion battery cathode chemistry today and is expected to be so for at least the next two decades

■ LCO ■ NCA ■ NMC 1-1-1 ■ NMC 5-3-2 ■ NMC 6-2-2 ■ NMC 3-7-0 ■ NMC 8-1-1 ■ LNMO ■ LMO ■ LFP ■ OTHER

Global output of cathode materials by chemistry in 2020



Manganese accounts for only 1-2% of the cost of cathode materials



Source: Cairn ERA, American Manganese Inc., Bloomberg, CPM Group
 Prices used (per kg of battery-grade material, metal contained):
 Jan 2019: Li=\$85, Ni=\$18, Mn=3.2, Co=62; May 2022: Li=\$386, Ni=\$31, Mn=3.5, Co=\$84

OAKOVER BEING DEVELOPED IN A TIMELY MANNER

- No substitute for manganese in steel production
- Manganese importance rising as a critical battery mineral and leveraging forecast growth in EVs and battery storage
- Growing push to source ‘ethical’ manganese from jurisdictions with low sovereign risk
- Primary objective of positioning Oakover as a critical supplier of manganese into a growing market

Key Oakover Development Workstreams

Activity	CY 2022			CY2023				CY 2024			
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Met Test Work											
Environmental Baseline Surveys											
Infill Drilling											
Feasability Study											
Environmental Approvals											
Secondary approvals (Mining, Water, Heritage, Works Approval)											
Detailed Engineering & Procurement											
Construction											
Commissioning											


 Full Quarter
 
 Part Quarter

STRONG COMMITMENT TO ESG OBJECTIVES

- Committed to developing Oakover in line with ESG strategy and objectives
- Key focus on integration of clean energy technologies where possible through development and operational stages
- Energy management plan will ensure local community and environment are of core consideration
- Dedicated and ongoing focus to support local Jigalong community:
 - Local band, Local school, Weather station
 - Utilising community services where possible
 - Develop training and apprenticeship programs
 - Endeavour to employ local personnel wherever possible
- Regular ESG reporting
- Maiden report released in 2021, year of listing



CORPORATE SNAPSHOT



EVAN CRANSTON Chairperson

Mr Cranston is an experienced mining executive with a background in corporate and mining law



PETER ALLEN Managing Director

Mr Allen is a mining executive with more than 20 years experience in marketing of manganese, lithium and a range of other commodities



WEI LI Finance Director

Mr Li a Chartered Accountant with extensive experience in the resource industry. Mr Li managed a private base metal exploration company in the Northern Territory and assisted in commissioning a A\$150 million Electrolytic Manganese Dioxide (EMD) plant in Hunan China



ASHLEY PATTISON Non-executive Director

Mr Pattison has over 20 years' experience in the resources sector from both a corporate finance and operational perspective. Qualified as chartered accountant, he has extensive experience in operations, finance, strategy and corporate finance



BRETT GROSVENOR Non-executive Director

Mr Grosvenor is an experienced mining executive with over 25 years' experience in the Mining and Power industry. Holding a dual tertiary qualification in Engineering and a Master in Business

Firebird Metals Limited **ASX:FRB**

Share price per 28/7/22 \$0.19

Shares on issue 54.6 M

Market capitalisation **\$10.3 M**

Options @ \$0.30 8 M

Options @ \$1 10 M

Performance rights 3.3 M

Cash (30 June 2022) \$0.5 M

Shareholders

Tolga Kumova 11.2%

Mining Equities 6.9%

Board & management 5.5%

Top 20 shareholders 54%

DEVELOPING WA'S NEXT MANGANESE OPERATION

- ✓ Total Mineral Resource Estimate across Oakover and Hill 616 increased by 350% to 229Mt
 - ✓ Indicated Resource of 58.7Mt @ 10.4% Mn at Oakover
- ✓ Manganese hub strategy targeting manganese concentrate and high purity manganese sulphate
 - ✓ Excellent metallurgical test work results to date, programs ongoing
 - ✓ Scoping Study results confirm excellent fundamentals and growth upside at Oakover
 - ✓ Manganese Concentrate Study to move into Pre-Feasibility Study stage
 - ✓ Sulphate Scoping Study underway, with completion expected in 2H 22.
- ✓ Excellent exploration and growth upside through Hill 616 and other Projects
- ✓ Favourable manganese market fundamentals, underpinned by strong, long-term demand forecasts from the battery minerals and steel markets
- ✓ Led by a proven Board and management team, who hold all the required skills to successfully build a quality, long-term manganese operation



THANK YOU

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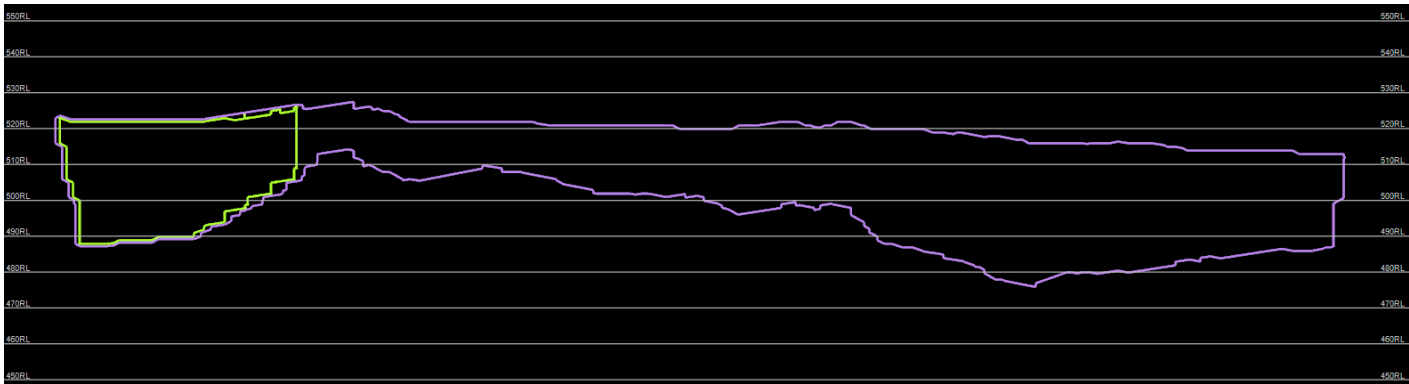
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OAKOVER PROJECT – SCOPING STUDY – Addendum

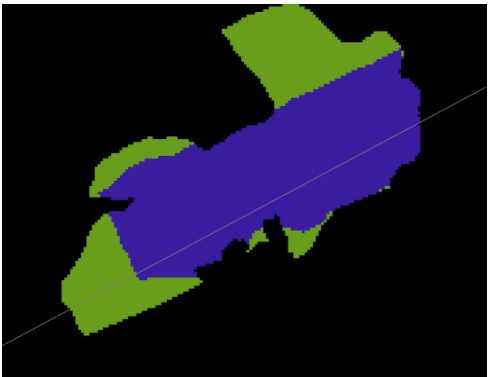
Ore Sort and Jig - All In Sustaining Cost Summary			
C1 CASH COSTS	Unit	LOM – TONNE	LOM – CONC TONNE
Mining			
Power	\$/t	0.0	0.1
Mining Labour Salaries	\$/t	0.3	1.5
Ore	\$/t	4.5	19.9
Processing			
Reagents	\$/t	0.1	0.4
Grinding Media & Liners	\$/t	0.3	1.3
Consumables	\$/t	0.1	0.3
Maintenance	\$/t	0.4	1.9
Power	\$/t	0.5	2.1
ROM Activity	\$/t	1.3	5.8
Vehicles	\$/t	0.0	0.2
Analytical	\$/t	0.4	1.6
Process Labour Salaries	\$/t	1.6	7.1
Administration			
General Admin	\$/t	0.5	2.0
Power inc camp	\$/t	0.0	0.1
Admin Labour Salaries	\$/t	0.4	1.8
All Labour On Costs	\$/t	0.8	3.5
All Labour Travel & Accom	\$/t	0.5	2.3
Conc/Metal Transport & Treatment			
Transport to Port & FOB Costs	\$/t	14.1	62.1
Sea Freight	\$/t	5.0	22.1
C1 CASH COST (CIF BASIS)	\$/t	30.9	136.1
AISC	Unit	LOM	LOM
C1 Cash Cost	\$/t	30.9	136.1
Royalties	\$/t	2.6	11.4
Sustaining Capital	\$/t	1.3	5.9
Corporate Costs	\$/t	0.1	0.6
ALL IN SUSTAINING COSTS	\$/t	35	154.0

Capital Cost			
Process Plant			
Bulk Earthworks		\$1 M	
Crushing & Stockpiles		\$9.3 M	
Scrubbing & Classification		\$10.4 M	
Ore Sorting Lump		\$17.8 M	
Jigging Fines		\$6.1 M	
Tailings Disposal		\$2.7 M	
Plant Services		\$3.0 M	
Non Process Infrastructure		\$2.0 M	
Mobile Equipment		\$1.3 M	
EPCM		\$9.7 M	
Other		\$10.1 M	
Total			\$73.4 M
Infrastructure			
Renewable Power plant		\$25.3 M	
Road(s) Upgrades		\$36.0 M	
Camp		\$3.0 M	
Tailings		\$4.0 M	
Other infrastructure		\$2.1 M	
Total			\$70.4 M
Total Capex (including Contingency)			\$143.8 M
Sustaining Capex (Road Maintenance and Tailings Storage over life of project)			\$49.9 M

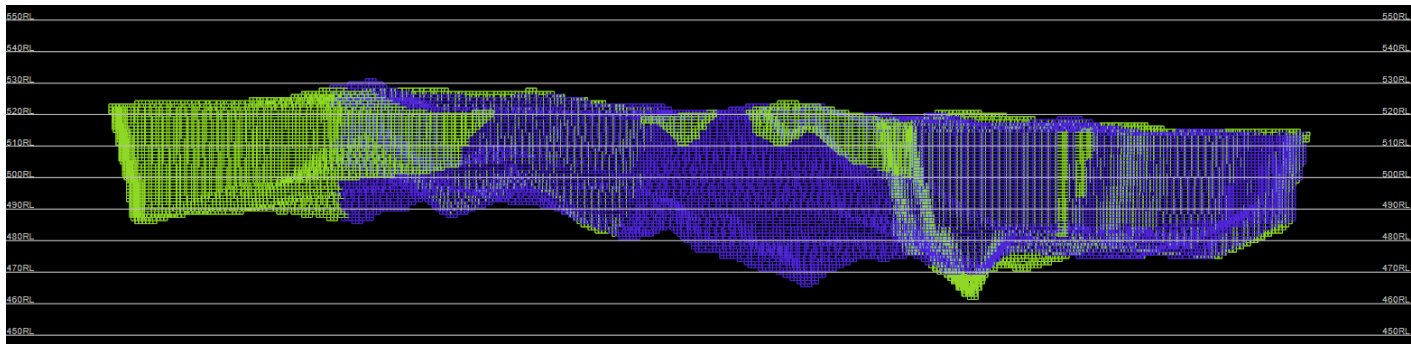
OAKOVER PROJECT – SCOPING STUDY – Addendum



Cross Section 1 (for clarity 5 times vertical exaggeration has been applied)

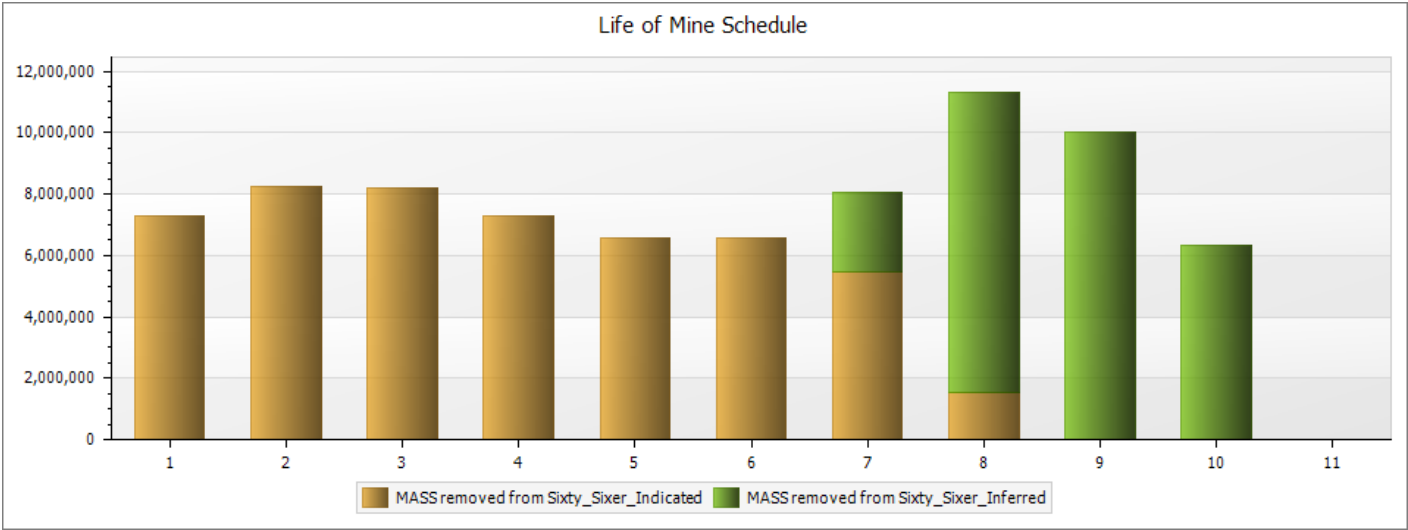


Cross Section 1 location19

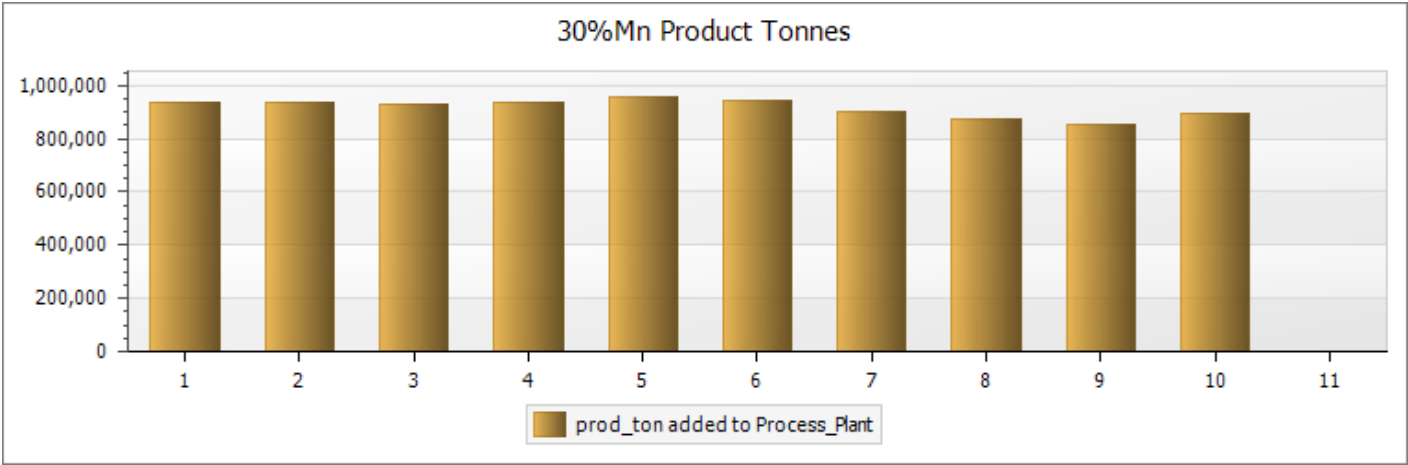


Full thickness Cross Section of Block Model (for clarity 5 times vertical exaggeration has been applied)

OAKOVER PROJECT – SCOPING STUDY – Addendum



Life of Mine Schedule by Phase, in tonnes



30% Mn Product Tonnes