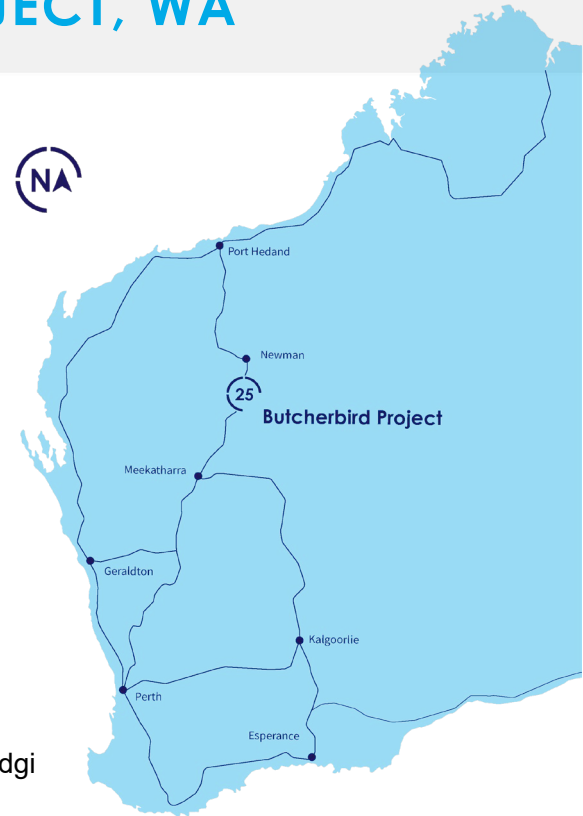


E25 ACHIEVES 107% ORE RESERVE INCREASE AT BUTCHERBIRD MANGANESE PROJECT, WA

Element 25 Limited (**Element 25, E25 or Company**) (**ASX: E25; OTCQX: ELMTF**) is pleased to announce a 107% increase in Ore Reserves at its Butcherbird Manganese Project (**Butcherbird or Project**) in Western Australia.



Highlights:

- Butcherbird Ore Reserve increased by 107% to 101.4Mt at 10.4%Mn for 10.54Mt contained manganese.
- Life of Mine increased to 18.3 years¹ at the proposed 1.1Mt annual production rate ^{1,2} for manganese concentrate.
- Ore Reserve based on two deposits, Yanneri Ridge and Coodamudgi, which are among eight deposits at the Project.
- Confirms Butcherbird's robust, > 18-year, long-life operation in line with Element 25's strategic plan.

This Ore Reserve statement relates to the Yanneri Ridge and Coodamudgi manganese deposits within granted mining lease M52/1074 at Element 25's 100%-owned Project in Western Australia.

The Project comprises eight known manganese mineral resources located in an area of approximately 600km² in the southern Pilbara region, approximately 1,050km north of Perth and 130km south of Newman. Access is directly via the Great Northern Highway, which traverses the Project, providing an immediate logistics solution for ore haulage to Port Hedland for export via existing bulk handling facilities.

Table 1: Butcherbird Ore Reserve Estimate³.

Deposit	Classification	Tonnes (Mt)	Grade (Mn%)	Contained Mn (Mt)
Yanneri Ridge	Proved	11.3	11.8	1.33
	Probable	70.4	10.2	7.15
Coodamudgi	Proved	-	-	-
	Probable	19.1	10.3	1.97
Stockpiles	Proved	0.6	9.2	0.06
TOTAL		101.4	10.4	10.5

¹ Reference: E25 ASX release dated 22 January 2025.

² Reference: E25 ASX release dated 23 January 2024.

³ Data are reported to significant figures to reflect appropriate precision in the estimate, and this may cause some apparent discrepancies in totals.

The Butcherbird Manganese Mine produced high-quality manganese concentrate while in operation for nearly three years, up until early 2024. Operations are currently temporarily suspended while Element 25 develops an expanded processing facility to increase mine production to a nominal 1.1Mt per annum of concentrate⁴.

Element 25 plans to sell manganese from the expanded Project into the manganese alloy market, as well as supplying feedstock for the Company's planned high-purity manganese sulphate monohydrate (**HPMSM**) refinery in Louisiana, USA, which is being developed in partnership with General Motors LLC (**GM**) and Stellantis N.V. (**Stellantis**) to supply low carbon critical battery raw materials to the electric vehicles (**EV**) industry.

Butcherbird contains current JORC (2012) mineral resources of 274Mt of manganese ore^{5,6}, and is Australia's largest onshore manganese resource.

INTRODUCTION

Element 25 has held exploration tenure in the area since 2009 and has advanced the Project via a series of exploration programs from early-stage rock-chip sampling and regional mapping through to multiple drilling programs and resource infill drilling. Several progressive Mineral Resource Estimates (**MRE**) have been completed since work commenced (refer to the Resource Estimate Section for details).

The Project is 100% owned by Element 25 and comprises granted Mining Lease M52/1074 and two granted exploration licences, E52/2350 and E52/3606, in addition to several infrastructure licences. Mining Lease M52/1074 encompasses the Yanneri Ridge and Coodamudgi manganese deposits, which are the focus of this Ore Reserve update. The Project straddles the Great Northern Highway and the Goldfields Gas Pipeline (**GGP**), providing turnkey logistics and potential energy solutions.

Existing approvals are in place from recent operations and the expansion project approvals have been submitted and are well advanced. The Company has Native Title and pastoral lease access agreements in place.

Element 25 completed a Feasibility Study (**FS**) for the Project in January 2024, which has been updated to support this Reserve Statement, including additional detail with regard to capital and operating costs. The updated FS has been released in conjunction with this Reserve Statement⁷. The FS contemplates a mining operation to extract ore via open-pit mining methods. The ore will be processed in a purpose-built processing facility producing manganese lump products which will be trucked to Port Hedland and sold to manganese consumers around the world and to the planned Element 25 Louisiana processing facility to produce HPMSM. The Ore Reserve estimate is based on this Ore Reserve Statement which should be read in conjunction with the FS.

⁴ Reference: E25 ASX releases dated 23 January 2024 and 30 January 2024.

⁵ Reference: E25ASX release dated 29 October 2024.

⁶ The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012.

⁷ Reference: E25 ASX release dated 22 January 2025.

ORE RESERVE CLASSIFICATION

Element 25 updated the global Butcherbird Mineral Resource Estimate (**MRE**) in October 2024⁸, which included a substantial upgrade to the tonnages in the Measured and Indicated resource categories.

This updated Ore Reserve is developed from the October 2024 MRE for the Yanneri Ridge and Coodamudgi manganese deposits. The resource models and their development are described separately in the Mineral Resource Estimate report⁸.

Proved and Probable Ore Reserves have been derived from Measured and Indicated Mineral Resources in accordance with Joint Ore Reserve Committee (**JORC**) Code 2012 guidelines. The updated Ore Reserve for the Project is summarised in Table 1.

The Ore Reserve classification reflects the Competent Persons' assessment of the deposits with the application of appropriate modifying factors.

MINING METHODS

The Yanneri Ridge and Coodamudgi manganese deposits are two of the eight known manganese deposits contained within the Butcherbird Project. The Yanneri Ridge and Coodamudgi deposits are shallow, lateritic manganese resources most suitable for mining by open pit mining methods utilising conventional mining equipment, with multiple stages of pit development. Yanneri Ridge outcrops along its southern border, whereas Coodamudgi is buried under 3m to 5m of cover.

The selected mining method, mine design and extraction sequence are tailored to suit orebody characteristics, minimise dilution and ore loss, defer waste movement, utilise planned process plant capacity and expedite cash generation in a safe manner. Geotechnical work and site experience has indicated that the majority of the mineralisation can be mined as free-dig material without the need for drill and blast techniques. Some surface areas contain caprock material that may require campaign blasting and/or dozer ripping. In-pit ripping has not been required historically but may be used locally as required to improve productivity rates.

Mine planning, including pit optimisation, mine design, scheduling and cost modelling for the Yanneri Ridge resource, was completed by E25 in collaboration with Mine Planning Services (**MPS**) and Minero to support the design of the site layout including site haul roads, pit access roads, detailed pit stage development designs, waste dumps, topsoil stockpiles, mine workshops, run of mine (**ROM**) ore pads, processing plant, tails storage facility and bore field.

⁸ Reference: E25ASX release dated 29 October 2024.

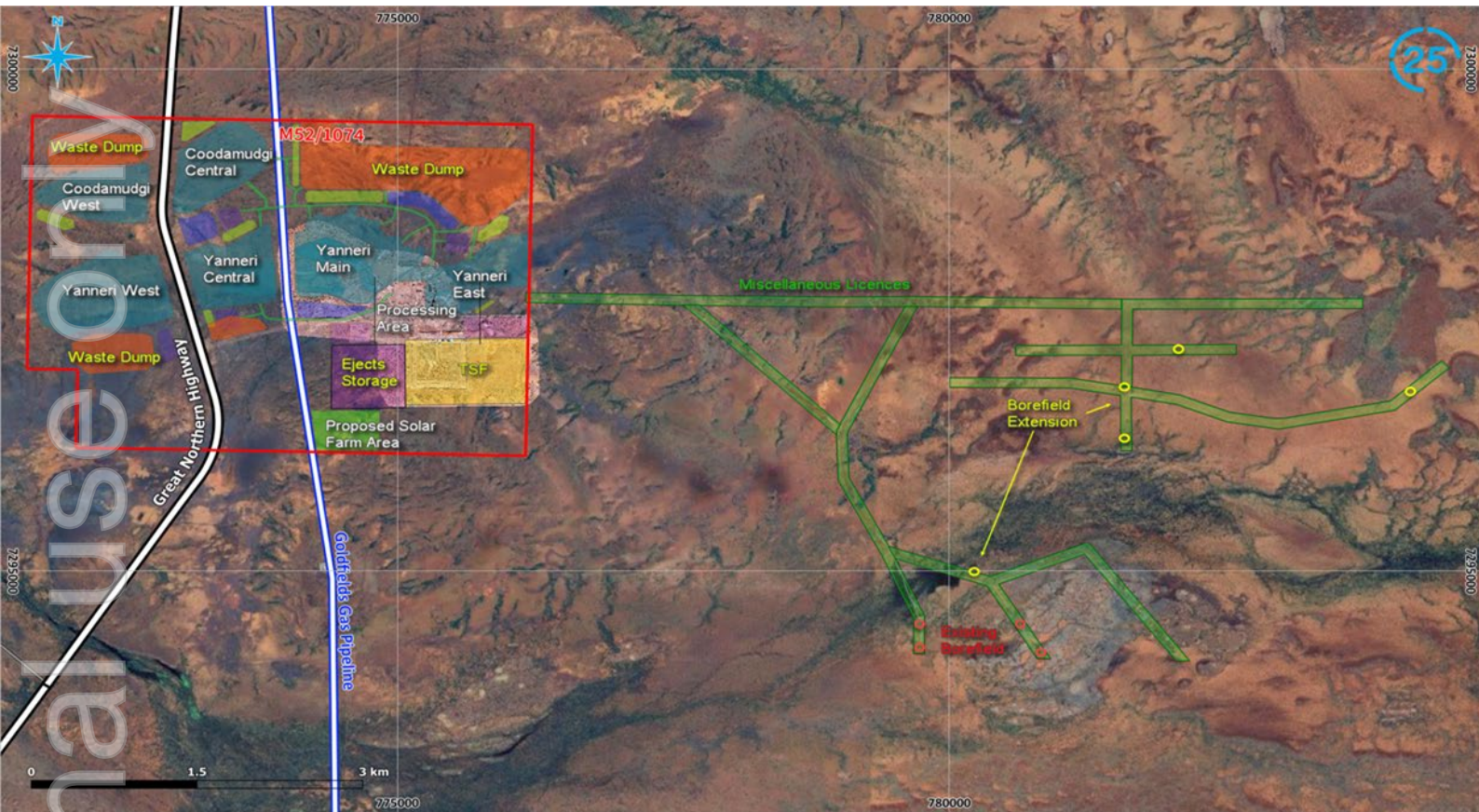


Figure 1: Project site layout showing planned mining areas and associated infrastructure.

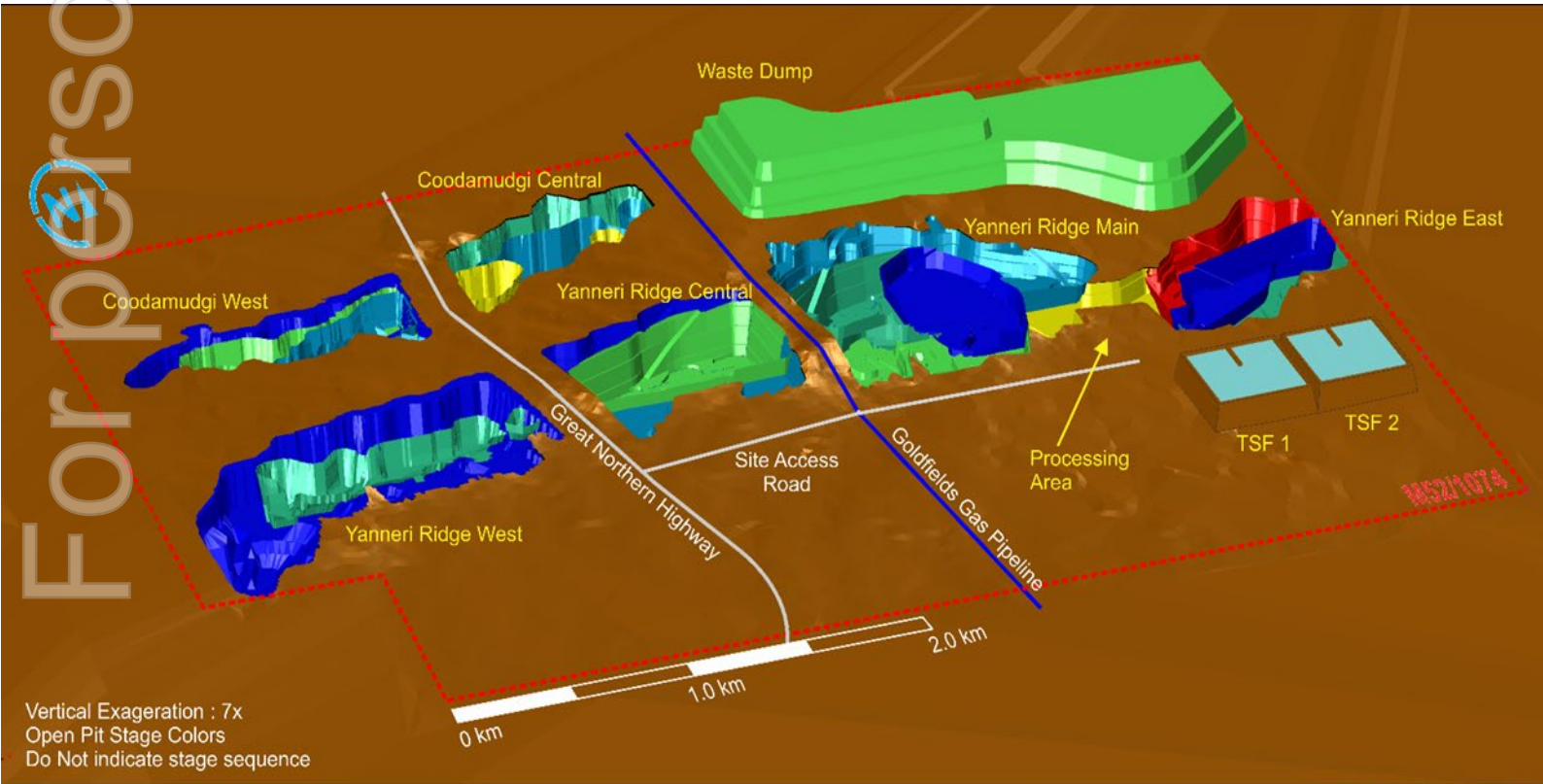


Figure 2: Project site layout showing Pits and waste landforms.

CUT-OFF GRADE AND METAL PRICE

A processing rate to deliver 1.1Mtpa manganese concentrate production was chosen based on optimised productivity factors using standard processing equipment supported by manganese market supply/demand considerations. The startup processing throughput and the cut-off grade at that throughput were determined based on operating costs and revenues derived from previous experience and the updated FS. The selected cut-off grade is 7%Mn.

A mining schedule was developed by Jim Moore of MPS to ensure that adequate ore tonnes were delivered to the ROM to achieve the planned processing product output. Minero used this schedule to calculate a mining cost using first principles that includes a contractor profit margin.

The Ore Reserve was estimated using the life-of-mine (**LOM**) economic parameters drawn from E25's economic assumptions. Ore pricing forecasts were sourced from three manganese concentrate forward price estimates supplied by market research analyst groups Project Blue⁹, AME¹⁰ and Wood Mackenzie¹¹, supporting a consensus manganese index price of US\$5.75/dry metric tonne unit (**dmtu**) (CIF China, high-grade manganese basis). This equates to an average manganese price used in the study of AU\$5.85/dmtu Free on Board (**FOB**) Port Hedland.

The consensus manganese price was converted to a FOB Port Hedland price by deduction of shipping and insurance costs sourced from industry sources. The resultant revenue factor for the Project is derived from the elements listed in Table 3.

The cut-off value equates to the processing cost including general administration, sustaining capital, corporate overheads and costs associated with the mine rehabilitation fund.

Manganese value is calculated on a block-by-block basis and considers royalties, concentrate transport and port charges.

MINERAL RESOURCES

In October 2024, the Company published an updated MRE for the Project¹², including the Yanneri Ridge and Coodamudgi deposits which are the targets of this ore reserve statement.

The global resource is current as follows:

Table 2: Butcherbird Manganese Project - Global Mineral Resource Estimate – October 2024 (cut-off grade 7%Mn¹²)

Resource Category	Volume (m ³)	Density (t/m ³)	Tonnes (t)	Mn %
Measured	6,000,000	2.36	14,000,000	11.3
Indicated	50,000,000	2.33	116,000,000	10.1
Inferred	60,000,000	2.42	144,000,000	9.8
Total	115,000,000	2.38	274,000,000	10.0

⁹ <https://projectblue.com/>

¹⁰ <https://aus.amegroup.com/>

¹¹ <https://www.woodmac.com/>

¹² Reference:E25 ASX release dated 29 October 2024.

ORE RESERVE ESTIMATION METHODOLOGY

The Ore Reserve estimate is based on the Mineral Resource estimates classified as Measured and Indicated after consideration of all modifying factors such as legal, environmental, geological, geotechnical, mining, metallurgical, social, economic and financial aspects.

Table 3: Ore Reserve Optimisation Economic Assumptions

Assumption	Unit/Qualifier	Value
Manganese Concentrate Price	USD/dmtu (44%Mn CIF China basis)	5.75
	AUD/dmtu (31.5%Mn FOB Port Hedland basis)	5.85
Shipping Charges	USD	16.00
Exchange Rate AUD:USD	2024-2034	0.69

Inferred Mineral Resources were excluded from pit optimisation, mine schedules and economic valuations utilised to validate the economic viability of the Ore Reserves. The Ore Reserve is technically and economically viable without the inclusion of Inferred Resources.

Prior to pit optimisation, the Mineral Resource model was normalised to Selective Mining Unit (**SMU**) blocks of 5m E x 5m N x 1m RL to generate a diluted mining model. The SMU block size reflects expected mining equipment size, the geometry of the geology and anticipated ore loss. Mining dilution and ore loss were applied through normalisation of the Resource model. The overall effect was 5.4% loss of ore tonnes resulting in 5.1% loss of metal. This is considered appropriate as all ore is mined and processed where the characteristics of the manganese allow it to be recovered. The nature of the deposit allows for ore to be bulk mined, with minimal selectivity required and a relatively small number of ore/waste boundary contacts. The re-blocked model was applied to the mining model that was used for mine planning purposes.

The Resource model was optimised using the Geovia-Surpac mining software implementation of the Lerchs-Grossman (**LG**) algorithm. Nested pit shells are generated and tested with sensitivities on mining cost, processing cost, metal price, recoveries, and slope angles. This formed the basis of the selection of the optimal pit shell for the Yanneri Ridge and Coodamudgi deposits. Interim pit shells provided guidance for pit design stages to delay waste removal and bring forward ore to maximise value and achieve operational design requirements.

The resultant pit shells were used to develop detailed pit designs with due consideration of geotechnical slope parameters, minimum mining widths, bench heights, and ramp widths suitable for proposed mining equipment. These pit designs were used as the basis for production scheduling and economic evaluation.

The mining schedule is based on realistic mining productivity and equipment utilisation estimates sourced from industry quotations and experience. Pit development requirements, the selected mining fleet productivity and the vertical rate of mining development were all considered. Staged pit designs along with a stockpiling strategy were applied to ensure a continuous supply of ore while deferring waste mining for as long as practicable.

The mining schedule is based on supplying suitable material to the processing plant with a name plate capacity of 1.1Mtpa, planned to be achieved in the fifth month after commissioning as indicated in the FS announced in conjunction with this release.

The Ore Reserve has been supported by mining operating costs derived from first principles by an experienced and independent mining consultant, Minero. Process plant Capital Expenditure (**CAPEX**) has been costed by Aspect Engineering with input and quotations sourced from original equipment manufacturers (**OEM**)s. Operation Expenditure (**OPEX**) was estimated from a first principal cost model and mine schedule physicals. Equipment hours and requirements were estimated from haul cycles, production rates, availabilities and utilisation. Operational and maintenance labour was estimated from equipment hours and maintenance labour factors.

It is assumed that mining will be undertaken by a suitably experienced mining contractor for the life of mine. Approximately 600kt ore has been stockpiled ready for use on commissioning, equivalent to six weeks of plant throughput at full production rates. A four-month ramp-up to full production has been applied to the financial model.

The final pit design based on the optimised open pit shells is the basis of the Ore Reserve estimate. The Mineral Resource within the final pit design was converted to Ore Reserve by applying financial and other parameters to the model.

GEOTECHNICAL ENGINEERING

Geotechnical modelling was based on logging and laboratory testing of selected diamond drill core samples from 15 diamond-cored drill holes within the designed pit shell, historically drilled for combined metallurgical and geotechnical purposes.

The geotechnical slope design parameters used were based on work completed by Peter O’Bryan and Associates Pty Ltd. The open pit designs were based on the recommended geotechnical design parameters. Geotechnical engineers from Peter O’Bryan and Associates have visited site during the operational phase of the project. Current batter conditions onsite have demonstrated that the geotechnical parameters applied may be conservative but have been used in the study and are considered appropriate.

The overall slope parameters considered for the mine planning are summarised as:

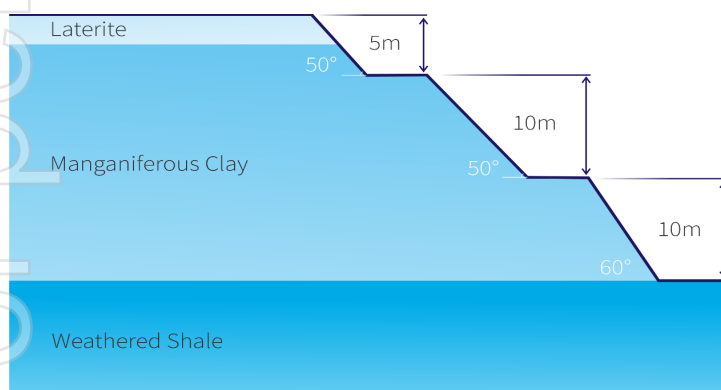


Figure 3: Yanneri Ridge – Limit Equilibrium Analysis Model and Proposed Pit Parameter

Specific modifications were made to the western wall of the East Yanneri Ridge open pit which is adjacent to the Goldfields Gas Pipeline (**GGP**). In this location the pit wall was designed 25m outside the GGP Pipeline Reserve to increase the factor of safety in this area. An approved stand-off distance from the GGP is included in all mining approvals and has been allowed for in the calculation of the mineral reserve and mine designs.

METALLURGY AND PROCESSING ASSUMPTIONS

The Project process facility has been designed to produce 1.1 Mtpa of manganese oxide ore. The design of the plant assumes twenty-four hours per day seven days per week operation at a nominal throughput of 858.6 dry tonnes per hour, with annual plant utilisation of 6,570 hours. The processing facility utilises recognised technology for ore processing circuits and follows a processing route of:

- Crushing.
- Screening.
- Scrubbing.
- DMS Separation.
- Tails Thickening and Water Recovery.
- Tailings storage.

The Project has been the site of a smaller commercial pilot process facility that operated for over two years processing the Butcherbird ore through a flowsheet comprising these principal process steps. Process data

from the piloting phase has been compiled together with historical laboratory metallurgical test data to develop a grade recovery model that has been used to underpin the assumptions in the financial model that supports this Reserve¹³.

To develop this model, the following data sets have been used:

1. Butcherbird production and metallurgical data.
2. Site laboratory data.
3. PSD Analyses (production).
4. Product dispatch data.

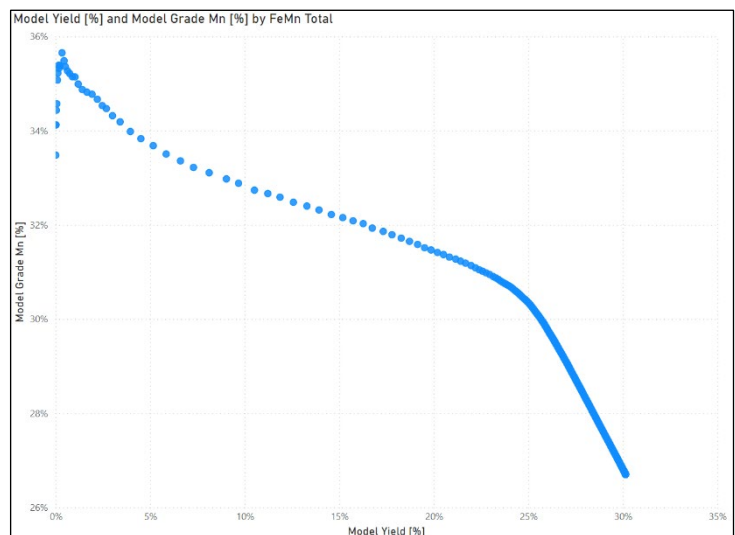


Figure 4 Grade yield model for Butcherbird ore.

The modelled data show, as expected, that

grade and recovery are inversely related, and a grade cut must be selected to maximise profitability. Whilst this cut may be varied during operations as conditions change, the based case was selected to align with other assumptions in the FS.

The overall metallurgical manganese recovery for the base case for oxide ore is 60.1%, with a product yield of 19.5%, producing a 31.5% Mn product.

The simplified plant flowsheet is shown in Figure 4.



Figure 5: Simplified Process Flowsheet

¹³ Reference: E25 ASX release dated 19 December 2019 and 23 March 2020.

Specific equipment selection for the flowsheet was developed using experience from the pilot plant including factors such as throughput and recovery performance combined with knowledge of how the Butcherbird ore performs, with particular regard for the high clay content of the lateritic ores. Based on this information and experience, two main changes were made to the flowsheet from the pilot plant with a shift to a rolls crusher or mineral sizer for the primary and secondary crushing stages and a dense media separation (DMS) heavy-media drum for the final comminution stage of the process.

The rolls crusher has been selected as it is known to perform more reliably than a jaw crusher in high clay environments. The two-stage process sizing was selected to maximise recovery and minimise downtime due to potential process blockages caused by oversized ROM feed.

Test work completed at the Bootu Creek Mine provided important performance information to guide the process design activities for the DMS circuit¹⁴. And the DMS drum in the base case flowsheet is a copy of the Bootu Creek operation and is upscaled to achieve the same throughput and performance. All equipment is selected on the higher throughput requirement and selected from vendor-specific data to achieve the operational performance.

SOCIAL, ENVIRONMENTAL AND APPROVAL

A series of environmental baseline studies have been completed since 2010 with the aim of characterising the existing environment and identifying any associated Project and approval risks. The baseline environmental programme has included assessments of flora and terrestrial fauna, landforms, terrestrial environmental quality (including both mineralised and non-mineralised waste), inland waters, heritage, archaeology, and human health. All waste rock dumps will be designed in accordance with Western Australian requirements and approvals conditions.

A programme to confirm process water supply was carried out in 2019 and 2020 on tenements 6 km southeast of the Butcherbird processing facility. The programme comprised ten water exploration drill holes and confirmed that the local silcrete aquifer system could yield sufficient process water for the anticipated water requirements of the Project. A bore field to supply up to 1.0 gigalitre of water per year for processing was subsequently developed, and this aquifer has met all water supply requirements to meet the operational demands from operations during the 2021-2024 campaign.

The proposed processing plant design for the expanded operation incorporates additional water recovery design elements and has reduced tails volumes resulting in an overall net reduction of raw water requirements. This provides confidence that water quality and quantity of existing bores will meet the Project specifications.

To further reduce water supply risk, exploration drilling in November 2024 targeted a deeper paleo channel aquifer southeast of the mine site. The drilling was successful and the paleo channel is expected to provide an excellent additional water supply source once developed. A total of five potential new production bore sites were identified which will be developed as required.

Two Native Title parties have claims over different areas within the broader Project area. The Company has secured mining agreements with the Ngarlawangga group, whose lands cover the west of the Project, including the western portion of the M52/1074 area, and the Karlka Nyiyaparli group, whose lands cover the east of the

¹⁴ Reference: E25 ASX release dated 28 July 2022.

proposed Project development area, including the majority of M52/1074. The mining agreements cover current and future access, exploration and mining activities that allow for site access with agreed compensation.

The Company has developed and maintained a close relationship with the Traditional Owners and has ensured that the community have been involved in the ongoing development of the Project.

The Project has received approval by the Western Australia Department of Energy, Mines, Industry Regulation and Safety (**DEMIRS**)¹⁵. The Mining Proposal for the proposed expansion was lodged with DEMIRS in the second half of 2024 and was approved on the 21st December 2024. Other statutory approvals have also been submitted to the Department of Water and Environmental Regulation (**DWER**) and these are also expected to be approved in quarter 1 of 2025.

The study programs and subsequent regulatory approvals to date represent a thorough assessment of the proposed Project area in-line with statutory requirements and guidelines. No material environmental or approval risks have been identified that would prevent approval of the amended Works Approval under the Department of Water and Environmental Regulations.

INFRASTRUCTURE

The first production pilot stage of the Project was operational from April 2021 until March 2024, and the expanded operation will have access to the following established infrastructure:

- Site Access via the Great Northern Highway to the Project and a road for approximately 1km to site including APA Ltd approval for the Gas Pipeline crossing.
- Site Development and Infrastructure including clearing, levelling and bulk earthworks, access roads linking the various operational centres (Mine, Process Plant and Administration), drainage and surface runoff and fencing of operational areas.
- Power generation using 3 x 500kW diesel-powered generators with an additional 500kW generator unit as backup with reticulation servicing the processing plant and office/workshop area. Water bores at the bore field each have an individual diesel generator.
- Water Supply – water for construction, mining, processing the ore and other site activities will be sourced from established bore-field infrastructure to the east of M52/1074. It is considered the current bore field has adequate groundwater capacity for the foreseeable future.
- Ore stockpiling and ROM pad reclaiming, primary crushing, scrubbing, site laboratory, workshop, screening and ore sorting facilities. Where new infrastructure is required for the upgraded processing plant, full replacement and construction costs have been incorporated into the FS.
- A paddock-style Tailings Storage Facility (**TSF**) has been established with current regulatory approval for progressive downstream raises to meet the new production requirements for at least the first six years of operation. Future additional TSF designs are well advanced and will provide additional storage solutions for the current planned LOM.

¹⁵ Reference: E25 ASX release dated 13 January 2025.

- Onsite services including reticulation of power, internet and phone communications, water around the operational centres, provision of lighting, sewage and wastewater services, fire, compressed air and dust suppression systems, waste disposal, bulk fuel receipt, storage and distribution.
- Buildings including the provision administration, workshops, logistics hubs, warehousing and other non-process or mining structures.

The following infrastructure has been specifically excluded as part of the FS:

- The site will currently not include a mining camp, personnel will be housed at nearby established facilities. The expansion of that accommodation facility and operating costs of all support personnel has been included in the FS.
- The site will not have an aerodrome but will utilise the airport at Newman, approximately 120km north of the Project. This cost has also been included. Studies will be undertaken in regards to the use and expansion of the existing airstrip adjacent to the Kumarina Roadhouse where the accommodation village is located. This airstrip requires an extension to enable suitable-sized aircraft access but could shorten travel and flight times.

ABOUT ELEMENT 25

Element 25 is an ASX-listed company (ASX: **E25**) that operates the world-class 100%-owned Butcherbird Manganese Project in Western Australia and is currently undertaking activities to expand production to approximately 1.1Mtpa¹⁶ of medium-grade high silica manganese ore for use in traditional and new energy markets.

E25 is also commercialising innovative proprietary technology to produce battery-grade high-purity manganese sulphate monohydrate (**HPMSM**) for use in Electric Vehicle (**EV**) battery manufacturing. The Company plans to build its first HPMSM refinery in Louisiana, USA to produce raw materials for the US EV market, in partnership with General Motors LLC (**GM**) and Stellantis N.V. (**Stellantis**)¹⁷. E25 aims to become an industry-leading, world-class, low-carbon battery materials manufacturer.

The Louisiana refinery is planned as the first of several HPMSM facilities planned for development under E25's "Design One Build Many" commercialisation strategy which envisages a hub and spoke model, with ore supplied from E25's Butcherbird Mine in Western Australia to supply processing facilities in key regional markets to supply HPMSM to the rapidly growing EV servicing key global regions.

The addition of a potential HPMSM refinery site in Chiba prefecture in Japan in partnership with Nissan Chemical is another exciting step forward in realising the Company's strategic plan.

Company information, ASX announcements, investor presentations, corporate videos, and other investor material in the Company's projects can be viewed at: www.element25.com.au.

This announcement is authorised for market release by Element 25 Limited's Board of Directors.

Justin Brown

Media Inquiries:

¹⁶ Reference: E25 ASX releases dated 23 January 2024 and 30 January 2024.

¹⁷ Reference: E25 ASX releases dated 9 January 2023 and 26 June 2023.

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Competent Persons Statement

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Justin Brown who is a member of the Australasian Institute of Mining and Metallurgy. At the time that the Exploration Results and Exploration Targets were compiled, Mr Brown was an employee of Element 25 Limited. Mr Brown is a geologist and has sufficient experience which 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 Brown consents to the inclusion of this information in the form and context in which it appears in this report.

The information in this report that relates to Ore Reserves is based on and fairly represents information and supporting documentation compiled by Ian Huitson BEng (Min), FAusIMM, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM Membership No. 103359).

Ian Huitson is an employee of Element 25 Limited. Ian Huitson is a shareholder of Element 25 Limited and is entitled to participate in the Element 25 Limited employee share options plan.

Ian Huitson has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken 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' (JORC 2012).

Ian Huitson consents to the inclusion in the report of the matters based on his information in the form and context in which they appear.

The Ore Reserve estimates have been compiled in accordance with the guidelines defined in the JORC Code.



Ian Huitson

Study Manager - **Element 25 Limited**

Disclaimer

The Company confirms that in the case of estimates of Mineral Resource, all material assumptions and technical parameters underpinning the estimates in the market announcement dated 29 October 2024¹⁸ continue to apply and have not materially changed. The Company confirms that it is not aware of any new information or data that materially affects information included in previous announcements, and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Investor Relations Disclaimer

Certain Statements included in this announcement are forward-looking statements concerning Element 25 Limited and its subsidiaries (Element 25, E25) and its operations, economic performance, financial condition, plans and expectations. Without limiting the foregoing, statements including the words "believes", "anticipates", "plans", "expects", "could", "potential", "should" and similar expressions are also forward-looking statements.

All forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors that could cause actual events or results to differ from those expressed or implied, including, without limitation, business integration risks; uncertainty of production, development plans and cost estimates, commodity price fluctuations; political or economic instability and regulatory changes; currency fluctuations, the state of the capital markets, uncertainty in the measurement of mineral reserves and resource estimates, E25's ability to attract and retain qualified personnel and management, potential labour unrest, reclamation and closure requirements for mineral properties; unpredictable risks and hazards related to the development and operation of a mine or mineral or mineral deposit or mineral processing facility that are beyond E25's control, the availability of capital to fund all of the Company's projects and other risks and uncertainties.

You are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. E25 cannot assure you that actual events, performance or results will be consistent with these forward-looking statements, and management's assumptions may prove to be incorrect. E25's forward-looking statements reflect current expectations regarding future events and operating performance and speak only as of the date hereof and E25 does not assume any obligation to update forward-looking statements if circumstances or management's beliefs,

¹⁸ Reference: E25 ASX release dated 29 October 2024.

expectations or opinions should change other than as required by applicable law. For the reasons set forth above, you should not place undue reliance on forward-looking statements.

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APPENDIX 1 – JORC CODE, 2012 EDITION – TABLE 1

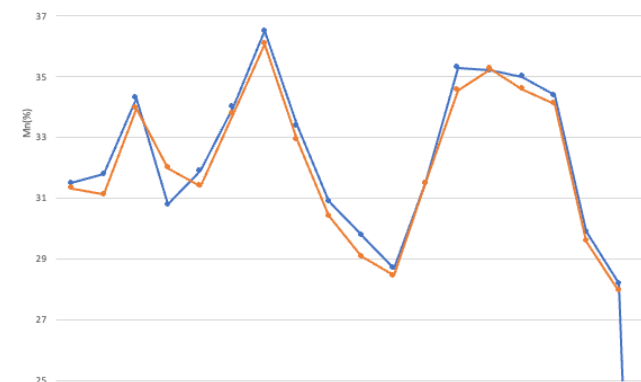
Section 1 - Sampling Techniques and Data

Criteria	Comment
Sampling techniques	<p>The majority of the drillholes were sampled as drill chips at 1m intervals, excluding diamond drillholes which were sampled to lithological contacts.</p> <p>The 2010, 2011, 2012, 2022 and 2024 drilling was all RC drilling and completed using 5-6m rods with a 5.5-inch bit. Samples were taken from a rig mounted splitter.</p> <p>The 2018 drilling was air core (AC), using a 3 ½" drill string and a combination of blade and percussion hammer bits. Drill chips were collected through a rig mounted cyclone and cone splitter.</p> <p>Drying, crushing, splitting and pulverising of the samples was conducted by the laboratory.</p> <p>The samples used in the 2024 MRE for Coodamudgi and Yanneri Ridge are detailed below (diamond core samples were excluded from the estimation).</p> <p>Where run-of-mine (ROM) samples have been collected for metallurgical test work they have been collected from ROM stocks available at the time of testing, and tied back to resource ore blocks for reconciliation purposes where possible.</p>
Drilling techniques	<p>All RC drilling was undertaken using an air pressured reverse circulation 140mm diameter face sampling hammer.</p> <p>All AC drilling was completed with a X350 Aircore Drill rig mounted on a VD3000 Morooka track base with a 3 ½" drill string and a combination of blade and percussion hammer bits.</p>
Drill sample recovery	<p>Sample recovery is available in the form of sample weights for 5,624 samples from the 2018 AC drillholes at Yanneri Ridge, representing 31% of the total samples across Yanneri Ridge and Coodamudgi. Overall, the sample recovery is acceptable, with a mean weight of 1.63kg. There are 5 sample weights that are less than 150g, with a minimum sample weight of 40g that may not be representative of the sample length.</p> <p>There is no known relationship between sample recovery and grade.</p> <p>Sample recovery is also available for 9 diamond drillholes in the form of recovered core length for a total of 39 measurements at Yanneri Ridge. Sample recovery is low for these drillholes with a mean recovery of 29%. Diamond drillhole assays were not used in the current MRE.</p>
Logging	<p>Brief logging summaries (of lithotype) and the sieving of 1m samples into chip trays was completed at the drill rig. Detailed logging of these chip trays was then completed in Perth.</p> <p>The logging is qualitative in nature and includes colour, weathering, lithology, grainsize, texture, structure, mineralisation, and alteration.</p> <p>The logging codes and procedure has been continuously refined by Element 25 according to increasing geological understanding.</p> <p>All drillholes at Yanneri Ridge and Coodamudgi used in the 2024 MRE were logged from surface to end of hole, except for BBAC00325 at Yanneri Ridge which was logged to 36m (EOH = 42m).</p>

Criteria	Comment																																		
Sub-sampling techniques and sample preparation	<p>The majority of the 2010, 2011 and 2012 RC samples (8,066) were split using a riffle splitter. 123 samples have a sample type of 'unknown'. All of the 2018 AC, 2022 RC and 2024 RC samples (total 11,166 samples) were split using a cone splitter. Splitters were inspected at the end of each drill rod and cleaned with compressed air. Samples were dispatched to various laboratories as below (note some samples do not have a lab code assigned therefore total samples in this table will be less than total samples used in MRE):</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="background-color: #1a2b5a; color: white;">Drilling Phase</th> <th style="background-color: #1a2b5a; color: white;">Drilling Type</th> <th style="background-color: #1a2b5a; color: white;">Laboratory</th> <th style="background-color: #1a2b5a; color: white;">Number of samples</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>RC</td> <td>Nagrom</td> <td>4,678</td> </tr> <tr> <td rowspan="2">2011</td> <td rowspan="2">RC</td> <td>Aurum</td> <td>14</td> </tr> <tr> <td>Nagrom</td> <td>827</td> </tr> <tr> <td>2012</td> <td>RC</td> <td>Nagrom</td> <td>1,140</td> </tr> <tr> <td>2018</td> <td>AC</td> <td>SGS</td> <td>5,650</td> </tr> <tr> <td>2022</td> <td>RC</td> <td>Bureau Veritas</td> <td>12</td> </tr> <tr> <td>2024</td> <td>RC</td> <td>Bureau Veritas</td> <td>5,506</td> </tr> <tr style="background-color: #00a0e3; color: white;"> <td>TOTAL</td> <td>N/A</td> <td>N/A</td> <td>17,827</td> </tr> </tbody> </table> <p>In the initial 2010 drill program, waste samples were taken with a sample spear to generate a composite sample. Later drill programmes composite waste samples were taken with a sample shovel from each 1 metre sample. The majority of RC samples were sampled via dry riffle splitter. All samples were dispatched to Nagrom, and SGS Laboratories located in Perth, Western Australia. RC and AC samples were dry. All diamond core samples were dried prior to sampling. Samples were dried at 105°C. A fusion disk was prepared by mixing 0.8 grams of dried sample with 8 grams of 12:22 lithium tetraborate/metaborate flux (5% lithium nitrate), heated to 1000°C in a platinum crucible for 15 minutes, then poured into a platinum mould. Element concentrations were analysed using a Panalytical Axios XRF. For Loss on Ignition (LOI), the sample was heated to 1000°C for four hours, with mass loss measured using an electronic balance accurate to ±0.0001 grams. Quality control to maximise representivity of samples was conducted by the laboratories by monitoring the sizing analysis during crushing and pulverising. No issues regarding particle sizing were reported.</p>	Drilling Phase	Drilling Type	Laboratory	Number of samples	2010	RC	Nagrom	4,678	2011	RC	Aurum	14	Nagrom	827	2012	RC	Nagrom	1,140	2018	AC	SGS	5,650	2022	RC	Bureau Veritas	12	2024	RC	Bureau Veritas	5,506	TOTAL	N/A	N/A	17,827
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Criteria	Comment
	<p>Field duplicate analysis shows good correlation between primary and duplicate samples with no bias.</p> <p>All AC and RC samples were collected at 1m intervals down hole. The sample size is considered appropriate to the grain size of the material being sampled.</p> <p>Laboratories used were Nagrom, Aurum, SGS and Bureau Veritas.</p> <p>Suite of elements assayed using XRF analysis Ag, Al, Al₂O₃, As, Au, Ba, BaO, Be, Bi, Ca, CaO, Cd, Ce, Cl, Co, Cr, Cr₂O₃, Cu, Fe, Fe₂O₃, K, K₂O, La, Li, LOI, Mg, MgO, Mn, MnO, Mo, Na, Na₂O, Ni, P, P₂O₅, Pb, Pd, Pt, S, Sb, Sc, Si, SiO₂, Sn, Sr, Te, Ti, TiO₂, Tl, V and W. The elementals and oxides are in PPM and percent units.</p> <p>Mn suite of elements for MRE are Mn, Fe, Al, Ca, Si, K, Mg, Na, Ni and Mg.</p> <p>Analytical assay method is X-ray Fluorescence (XRF) with ICP-MS used early in the drill programme.</p> <p>XRF is considered a partial technique as it primarily analyses the elemental composition of the surface and does not provide a complete breakdown of all elements in the sample, particularly those bound within minerals or present in very low concentrations.</p> <p>All laboratories with the exception of Nagrom, are NATA accredited and procedures are considered appropriate and of sufficient quality.</p>
<p>Quality of assay data and laboratory tests</p>	<p>Downhole geophysical density was undertaken in 2019 on 68 drillholes at Yanneri Ridge by Bore-Hole Geophysical Services. Short, spaced density ('SSD') values were obtained. These were incorporated into the 2024 MRE using Ordinary Kriging.</p> <p>The SSD down hole readings were recorded at 0.2 cm intervals which were composited downhole to 1 m intervals using Micromine software.</p> <p>Tools used to during logging program include:</p> <ul style="list-style-type: none"> • Auslog Gamma, 631 Sonde • Auslog Gamma, Calliper and Density, D605 sonde • Auslog Magnetic Susceptibility / Induction / Conductivity 082E (HMI-383E) <p>Diamond drillhole BBDD012 was used as a calibration hole and BBAC0028 was used to test for tool drift.</p> <p>Calibration standards of lucite (density 1.28) and aluminium (density 2.6) were also used.</p> <p>The Geophysical density data was cleaned and validated, with values less than 1.5 g/cm³ were excluded.</p> <p>A programme of dry bulk density determination is required to adjust the geophysical density data to dry bulk density.</p> <p>The density data in the MRE is not dry bulk density data. There is the potential for minor overestimation of tonnes. Reconciliation data has not been available to assist.</p>

Criteria	Comment
	<p>Where assays were completed on site for production samples, the assays were conducted using a desktop mounted handheld XRF unit which is maintained in accordance with manufacturer recommendations and used with the following baseline parameters:</p> <ul style="list-style-type: none"> • Samples preparation uses the following procedure <ul style="list-style-type: none"> ○ Oven dried to eliminate non voc moisture; ○ Crushed to nominal <10mm; ○ Pulverised using an LM2 pulveriser; ○ Pressed into a pressed powder puck using a hydraulic press. • Analysis is via an Olympus Vanta p-XRF in “mining” mode using a single (averages) reading in a desktop sample/XRF mount. • Unit is calibrated regularly in accordance with manufacturers recommendations. • Daily QA/QC checks against laboratory standards prepared using the same procedure as for ROM samples. • Regular (nominally collected daily – reported monthly) QA/QC checks using site standards and off-site check samples using accredited assay laboratories (refer sample plot).
<p>Verification of sampling and assaying</p>	<p>Supporting QAQC data is available in the form of standards and paired duplicate data such as field duplicates, laboratory splits and laboratory repeats. Blanks and internal standards were also used.</p> <p>From 2010 to 2018, field duplicates at a frequency of 1 in 40. The duplicate samples and standard reference material were analysed at Nagrom and SGS Laboratories.</p> <p>Field duplicates show good correlation, suggesting acceptable levels of precision.</p> <p>Standard (CRM) results are available at an overall rate of 1:50 and show acceptable analytical accuracy. There are some outliers which are attributed to sample mix ups/incorrect labelling.</p> <p>Blank samples are available at a rate of approximately 1:50 and did not highlight any concern regarding sample cross contamination. The mean grade of the blanks was 0.21% Mn.</p> <p>Laboratory repeats were submitted at a rate of approximately 1:20 and show acceptable precision with ≥99% of samples <10% HARD (Half Absolute Relative Difference).</p> <p>Laboratory splits are available at a rate of approximately 1:150, but only for samples from the 2018 RC program tested by SGS. They show acceptable precision with >99% samples <10% HARD.</p> <p>Assay data was compared with geology logs by the site geologist for anomalous assays.</p> <p>Previous analysis showed no significant bias between drilling techniques when sample recovery was > 50%.</p>



Sample QA/QC correlation plot between mine lab assays and external certified laboratory checks (SGS).

Criteria	Comment
	<p>Data was logged into an Excel spreadsheet template.</p> <p>The data is reportedly checked by a Data Manager using standard routines, prior to being loaded into the company's drillhole database.</p> <p>Assay data is loaded into the database when received from the laboratory in csv format.</p> <p>Prior to 2017, the database was managed in a Microsoft Access database maintained by Element 25.</p> <p>Currently, the drillhole database is managed by an independent data management company, Expedio Services.</p> <p>The assay data was converted to account for different units (percent and ppm) and both elemental and oxide were reported (e.g., MnO or Mn), depending on the laboratory. A merged column of the element in percent unit was created for the majority of the manganese ore suite.</p> <p>Where assays were completed on site for production samples, the assays were conducted using a desktop mounted handheld XRF unit which is maintained in accordance with manufacturer recommendations and subject to regular QA/QC checks using site standards and off site check samples using accredited assay laboratories.</p>
Location of data points	<p>All drill holes within the resource area were surveyed predominantly using DGPS (96%), with remaining being GPS and RTK GPS.</p> <p>A new topographic surface was created in 2019 utilising the adjusted topographic contours from a 2015 aero mag survey, and drillhole collar DGPS locations.</p> <p>Validation of the collar coordinates identified a number (8) of anomalous collar coordinates in the z direction that were below the topography. The collar coordinates were updated to align with the topography and close nearby collar data.</p> <p>ROM samples (where used) are collected from available ROM stocks which are tied back to ore blocks in the Mineral Resource where possible.</p>
Data spacing and distribution	<p>The overall drill spacing at Richies Find and Mundawindi is 400m east-west by 100m north-south.</p> <p>The overall drill spacing at Yanneri Ridge is 100x100 with a small central area infilled to 50x50m.</p> <p>The overall drill spacing at Coodamudgi is 100x100m.</p> <p>The drill programs were as follows:</p> <ul style="list-style-type: none"> • 2010 program: primary focus on the Yanneri Ridge deposit using 200 x 100 m grid spacing with some wider spaced drill lines completed at the eastern and western extents using 400 x 100 m grid spacing. • 2011 program: focus on the Coodamudgi, Richies Find, and Mundawindi. Drilling was conducted at 400 x 100 m spacing to define the extents of the three individual deposits. • 2012 program: 200 x 100 m to further infill the 2010 drill lines within the extents of the Yanneri Ridge resource area. • 2018 program: variable spacing in the eastern extents of the Yanneri Ridge deposit. 25 x 25 m and 50 x 50 m spacing were utilised to increase confidence regarding mineralisation continuity in the target area which then further stepped out to 100 x 100 metre. • 2019 program: predominantly diamond drillhole twins to existing drillholes. • 2024 program: infilled both Coodamudgi and Yanneri Ridge to 10 0x 100m spacing,

Criteria	Comment
	<p>A drillhole spacing analysis project was completed in February of 2024 by MEC to define appropriate Mineral Resource classifications. Holes were drilled at ±25m offset positions in the N-S and E-W directions for variography assessment purposes around 7 existing hole locations across Coodamudgi and Yanneri Ridge resource areas.</p> <p>Samples were composited downhole to the dominant sample interval length of 1m, using Micromine software.</p>
Orientation of data in relation to geological structure	<p>The dominant strike direction of the mineralisation is east west. The drill lines are on a grid aligned east-west, north-south and therefore considered an appropriate orientation with respect to the structure of the deposit.</p> <p>The mineralisation is relatively flat lying and the vast majority of the drillholes are vertical.</p> <p>No bias to sampling has been introduced with respect to the drilling orientations.</p>
Sample security	<p>All samples were placed into pre-numbered polyweave sample bags.</p> <p>The samples were delivered to the laboratory via a courier company to the laboratory in Perth, sealed with cable ties and connote.</p>
Audits or reviews	<p>Audits and reviews of the sampling data and techniques have been carried out by:</p> <ul style="list-style-type: none"> • Snowden, 2011 • Extomine, 2017 • IHC Robbins, 2019 • MEC, 2024 <p>All review and audits considered the sampling and analysis to be of good quality and suitable for resource estimation.</p>

SECTION 2 – REPORTING OF EXPLORATION RESULTS

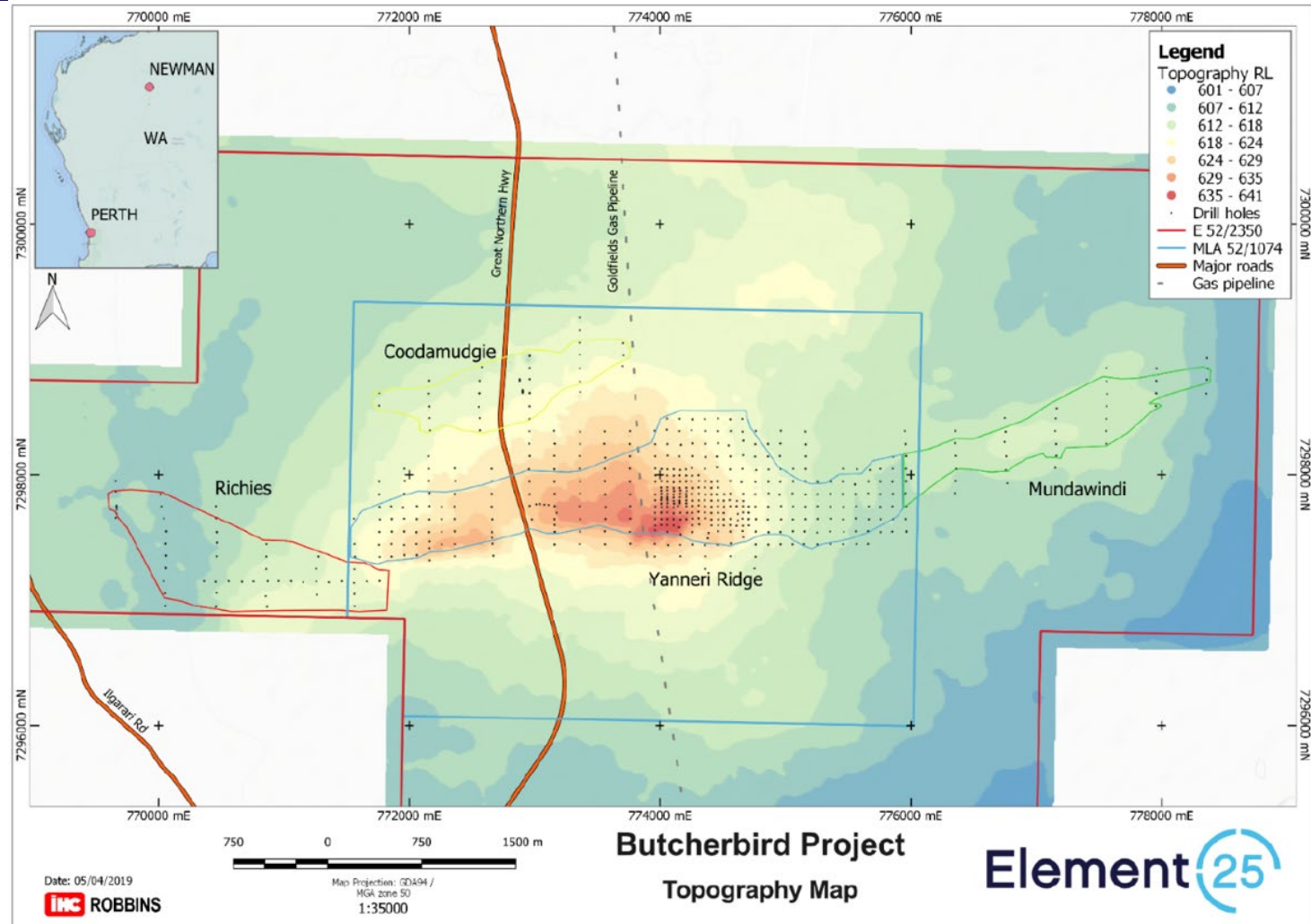
(Criteria listed in the preceding section also apply to this section.)

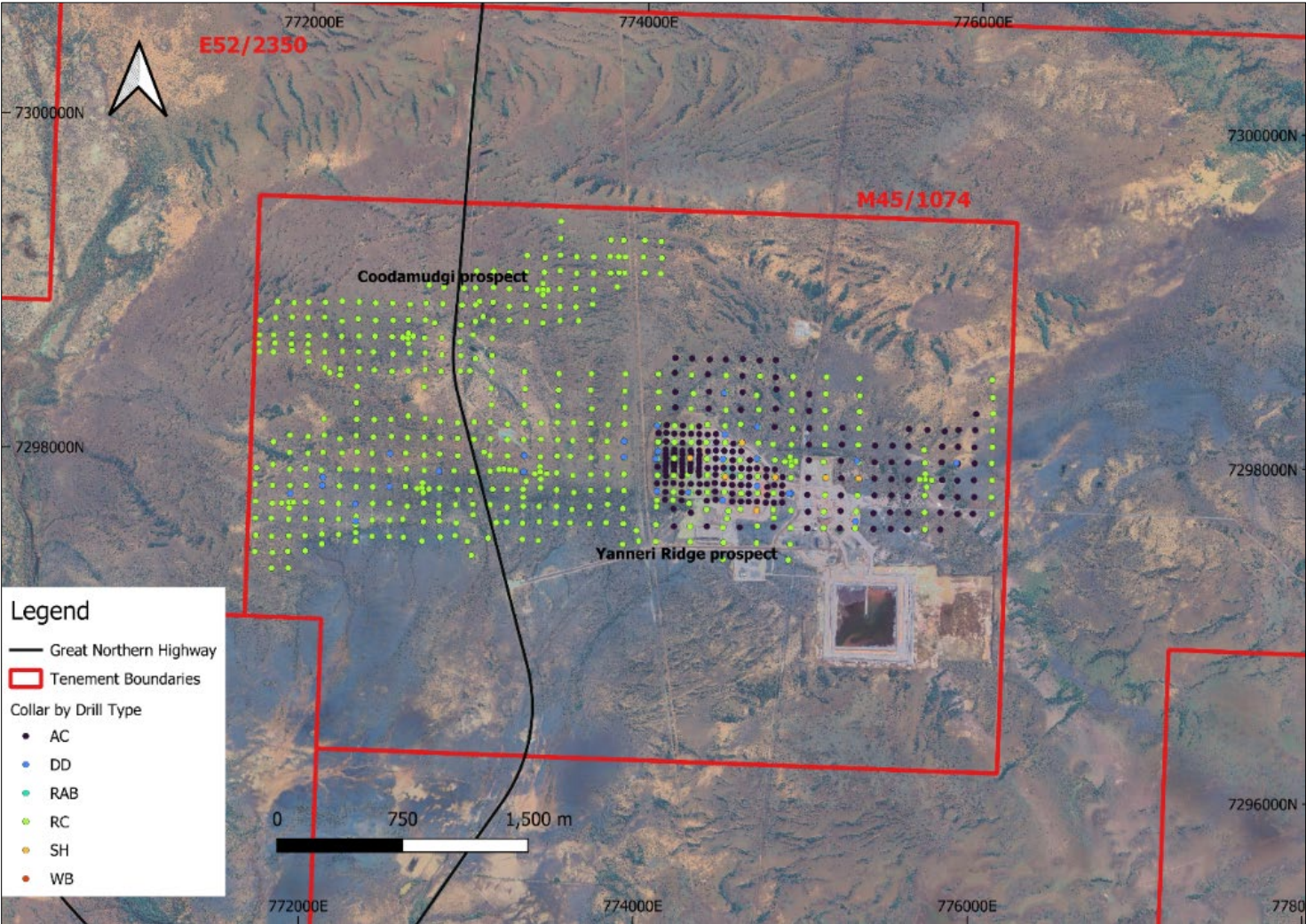
Criteria	Comment
Mineral tenement and land tenure status	<p>The Butcherbird Project is 100% owned by Element 25 and is located wholly within granted Exploration Lease E52/2350 and Mining Lease M52/1074.</p> <p>The tenement package also includes miscellaneous tenements for water exploration on L52/115 - L52/118.</p>

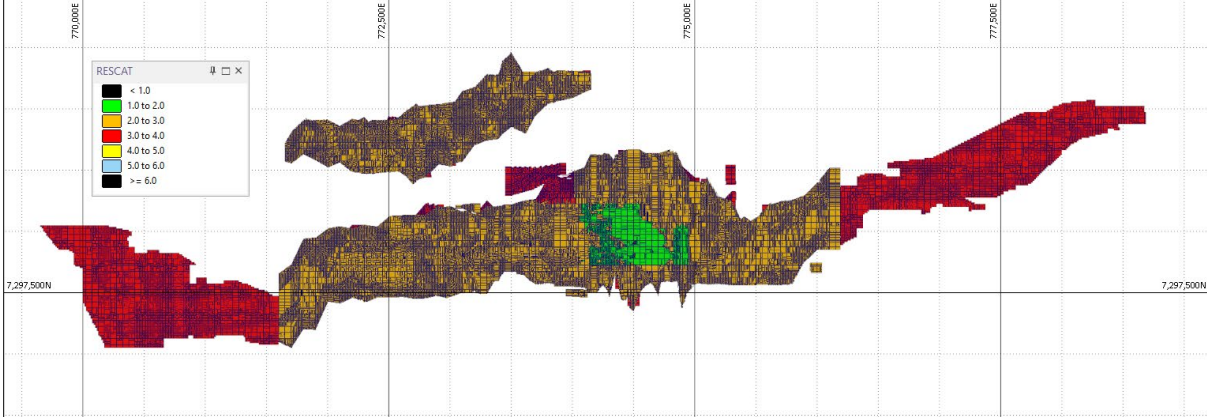
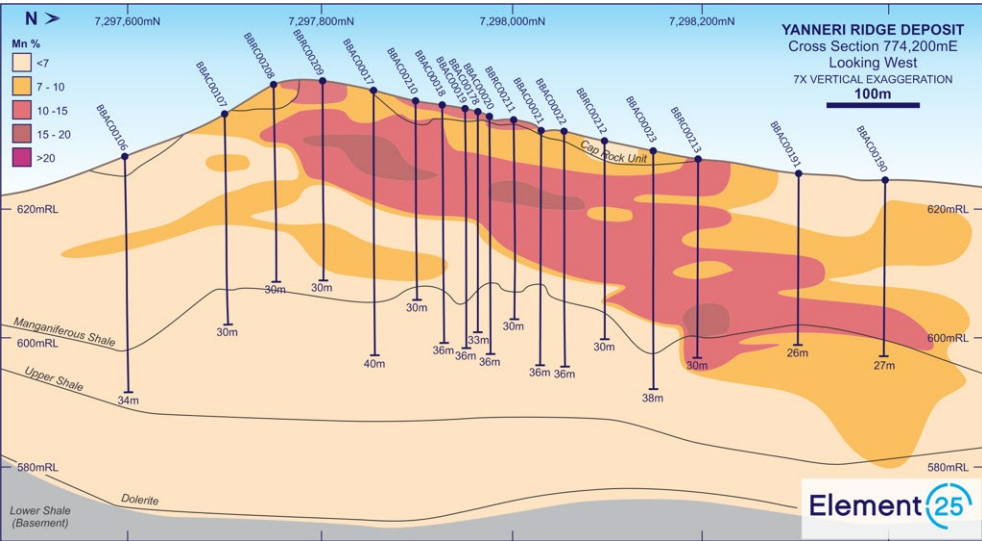
Criteria	Comment
Exploration done by other parties	<p>Previous exploration has been undertaken by various parties with the corresponding reported data being captured and retained in the current active database.</p> <p>In 1982, Alcoa drilled a 350m deep diamond drill hole and intersected 102m at 8.3% Mn from surface.</p> <p>Methods of exploration and the associated techniques have been deemed appropriate for the nature of the deposit.</p>
Geology	<p>The Butcherbird project consists of a number of stratiform sedimentary manganese deposits hosted within the Ilgarari Formation, which is mostly flat lying with some occurrence of gentle folding.</p> <p>The manganese mineralisation occurs within three primary ore zones.</p> <ul style="list-style-type: none"> • High grade manganiferous hardcap • Supergene enriched manganiferous shale. • Basal shale
Data aggregation methods	<p>Exploration results are not being reported at this time.</p> <p>No metal equivalent values were used.</p> <p>No high-grade values were cut</p> <p>No aggregation of short length samples was used as samples were consistently sampled at 1. Material outside the mineralised areas were sometimes composited to > 1 metre intervals.</p>
Relationship between mineralisation widths and intercept lengths	<p>The deposit is relatively flat lying and intersected mostly by vertical holes with the exception of two angled holes (10EM004, 10EM005).</p> <p>The 6% Mn cut-off zone was compiled on a weighted down hole average. The mineralisation within the Butcherbird Project is primarily strata bound with an approximate 80-degree strike, dipping at 7 degrees to the north.</p>
Drill hole Information	<p>See drill hole location plan;</p>

Criteria

Comment



Criteria	Comment
	 <p data-bbox="526 1340 1713 1372">Exploration Results are not being reported at this time as the announcement covers a Mining Reserve Estimate.</p>

Criteria	Comment
<p>Diagrams</p>	<p>Plan of Mineral Resources:</p>  <p>Geological cross section</p> 
<p>Balanced reporting</p>	<p>No new exploration results are not being reported at this time</p>

Criteria	Comment
Other substantive exploration data	No new exploration Exploration results are not being reported at this time
Further work	The next steps are to construct an expanded downstream process facility to upgrade a proportion of the ore to produce a higher grade concentrate applicable for the battery industry.

SECTION 3 - ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	Comment
Database integrity	<p>The original drill data derived by Element 25 drill data have been independently reviewed and validated by IHC Robbins 2019 and MEC 2024. The data review included:</p> <ul style="list-style-type: none"> • The data is reportedly checked by a Data Manager using standard routines, prior to being loaded into the company’s drillhole database. • Assay data is loaded directly into the drillhole database when received from the laboratory in csv format. • Prior to 2017, the database was managed in a Microsoft Access database maintained by Element 25. • Currently, the drillhole database is managed by an independent data management company, Expedio Services. <p>Exports of the drillhole database were supplied as CSV files to MEC for the 2024 MRE.</p> <ul style="list-style-type: none"> • The database was validated using tools within Micromine software and any discrepancies identified (for example below detection limit assays) were resolved prior to estimation. • Validation checks included searching for duplicate hole IDs and co-ordinates, spurious hole locations, checking all drillholes have associated orientation and inclination records, checks for overlapping records or missing data, checks that end of hole depths match the collar file. Checks were also performed for collars against the topography. • Validation of the assay data comprised of merging elemental and oxide assay data to generate a comprehensive and complete assay dataset in the percent unit. • Validation of the assay data incorporated review of underweight sample weights, management of negative values to half DL. • Two samples were flagged as ‘bad assay’ and excluded from the MRE (BBAC00075 12-13m at Coodamudgi and BBAC00092 11-12m at Yanneri Ridge). • The 2010 diamond holes assay data were also excluded from the estimate and flagged as ‘bad assay’. • Cross validation of assay and lithology logging was also undertaken. • Statistical analysis of the domains was used to verify the appropriateness of the domaining and stationarity.

Criteria	Comment
	Geophysical density data was cleaned and validated.
Site visits	<p>The Competent Person for the 2024 MRE, Dean O’Keefe, conducted a site visit 25-27 April 2023.</p> <p>The purpose of the site visit was to observe mining operations, to gain an understanding of the project geology, and to complete a geometallurgical study.</p> <p>The findings of the CP were consistent with the supplied project data.</p>
Geological interpretation	<ul style="list-style-type: none"> • The geological interpretations for the Mundawindi and Richies Find deposits were undertaken by IHC Robbins as they are part of the 2019 MRE. • The geological interpretations for the Yanneri and Coodamudgi deposits were undertaken by MEC. Existing interpretations by IHC Robbins were retained in areas where there was no additional drilling data. • The manganese mineralisation occurs within three primary ore zones. • High grade manganiferous hardcap • Supergene enriched manganiferous shale. • Basal shale • Data used to support the interpretations includes geochemical assays and lithological logs. • Interpretations were completed in cross section, snapping to drillholes, to create wireframes which were used to flag the resource block model. • Mineralisation was interpreted separately to geology, however, is constrained by it. The occurrence of the manganese bands in terms of thickness, frequency, and intrinsic grade is highly variable. The sedimentary origin and supergene enrichment has resulted in a zonal deposit, with a high nugget effect. • A geological cut-off grade of 6% Mn was used for mineralisation interpretation. • There is a high degree of confidence in the geological interpretation as the mineralisation is fairly flat lying with no complex folding observed. <p>Grade trends have been used with cross-sectional data and variography analysis to define search ellipsoid orientation and size in populating the resource model.</p>
Dimensions	<p>The extent of the Butcherbird Project area encompassing the four deposits (Coodamudgi, Mundawindi, Richies, and Yanneri) extends from approximately 769500E to 778800E, and 729700N to 7299500N</p> <p>A cookie cutter approach to the update of the Yanneri Ridge and Coodamudgi MRE whilst the Richies Find and Mundawindi deposits remain unchanged from the 2019 MRE.</p> <p>The average thickness of mineralisation is approximately 5 metres.</p> <p>Where the hardcap material is mineralised, the mineralisation is from surface.</p>

Criteria	Comment																																																																																																
Estimation and modelling techniques	<ul style="list-style-type: none"> The 2024 MRE for Yanneri Ridge and Coodamudgi was completed using Micromine software. 10 elements (Mn, Fe, Al, K, Si, Ni, Ca, Co, Mg, Na) were estimated using Ordinary block Kriging. At Yanneri Ridge, density was also estimated using Ordinary Kriging, however no geophysical density measurements were available at Coodamudgi therefore a mean nominal density for each domain was assigned. Discretisation was 2 x 2 x 2. No extreme grade values were observed, and no grade top cut was applied. The estimation was conducted in 3 search passes using restrictions on the minimum number of samples required for estimation (see later section of this table for parameters). <p>Blocks unestimated at the end of the third pass were assigned the mean grade relevant to that element and domain wireframe as below:</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Element</th> <th rowspan="2"></th> <th colspan="8">Domain</th> </tr> <tr> <th>Y MN1</th> <th>Y MN5</th> <th>Y MN7</th> <th>Y HCAP</th> <th>Y BS1</th> <th>C MN</th> <th>C HCAP</th> <th>C BS1</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Co</td> <td>Count null blocks</td> <td>30,431</td> <td>-</td> <td>1,291</td> <td>6,669</td> <td>8,041</td> <td>42,777</td> <td>4,197</td> <td>10,455</td> </tr> <tr> <td>% null blocks</td> <td>24.24</td> <td>-</td> <td>100</td> <td>49.3</td> <td>21.95</td> <td>100</td> <td>100</td> <td>100</td> </tr> <tr> <td>Nominal Value used</td> <td>0.00628</td> <td>-</td> <td>0.00611</td> <td>0.00506</td> <td>0.00103</td> <td>0.00611</td> <td>0.00506</td> <td>0.00103</td> </tr> <tr> <td rowspan="3">Density</td> <td>Count null blocks</td> <td>42,938</td> <td>173</td> <td>1,291</td> <td>7,564</td> <td>8,041</td> <td>42,777</td> <td>4,197</td> <td>10,455</td> </tr> <tr> <td>% null blocks</td> <td>34.21</td> <td>0.14</td> <td>100</td> <td>55.91</td> <td>29.95</td> <td>100</td> <td>100</td> <td>100</td> </tr> <tr> <td>Nominal Value used</td> <td>2.35578</td> <td>2.37214</td> <td>2.37214</td> <td>1.96503</td> <td>2.97922</td> <td>2.37214</td> <td>1.96503</td> <td>2.97922</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Negative kriging weights were reset to zero. Only parent cells were estimated, and the grade defaulted to the sub cells within the parent cell. Variograms were modelled for Mn% in the mineralised MNSHALE domain in three directions, using Micromine software. The variogram model was applied to all 10 estimated elements and density within all mineralised domains. The orientation of the variogram main axis is 90° with a plunge of 0°. The secondary axis azimuth is 180° with a plunge of 0°. The rotation is 0°. The variogram parameters are as follows: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2" style="background-color: #1a2b5c; color: white;">Variogram</th> <th rowspan="2" style="background-color: #1a2b5c; color: white;">Nugget</th> <th rowspan="2" style="background-color: #1a2b5c; color: white;">Component</th> <th rowspan="2" style="background-color: #1a2b5c; color: white;">Sill</th> <th colspan="3" style="background-color: #1a2b5c; color: white;">Range</th> </tr> <tr> <th style="background-color: #d3d3d3;">Axis 1</th> <th style="background-color: #d3d3d3;">Axis 2</th> <th style="background-color: #d3d3d3;">Axis 3</th> </tr> </thead> <tbody> <tr> <td rowspan="2" style="background-color: #d3d3d3;">Mn%</td> <td rowspan="2" style="background-color: #d3d3d3;">7.25</td> <td style="background-color: #d3d3d3;">Spherical 1</td> <td style="background-color: #d3d3d3;">3.6</td> <td style="background-color: #d3d3d3;">75.4</td> <td style="background-color: #d3d3d3;">74</td> <td style="background-color: #d3d3d3;">2.4</td> </tr> <tr> <td style="background-color: #d3d3d3;">Spherical 2</td> <td style="background-color: #d3d3d3;">4.55</td> <td style="background-color: #d3d3d3;">130</td> <td style="background-color: #d3d3d3;">136</td> <td style="background-color: #d3d3d3;">14.2</td> </tr> </tbody> </table>	Element		Domain								Y MN1	Y MN5	Y MN7	Y HCAP	Y BS1	C MN	C HCAP	C BS1	Co	Count null blocks	30,431	-	1,291	6,669	8,041	42,777	4,197	10,455	% null blocks	24.24	-	100	49.3	21.95	100	100	100	Nominal Value used	0.00628	-	0.00611	0.00506	0.00103	0.00611	0.00506	0.00103	Density	Count null blocks	42,938	173	1,291	7,564	8,041	42,777	4,197	10,455	% null blocks	34.21	0.14	100	55.91	29.95	100	100	100	Nominal Value used	2.35578	2.37214	2.37214	1.96503	2.97922	2.37214	1.96503	2.97922	Variogram	Nugget	Component	Sill	Range			Axis 1	Axis 2	Axis 3	Mn%	7.25	Spherical 1	3.6	75.4	74	2.4	Spherical 2	4.55	130	136	14.2
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	% null blocks	24.24	-	100	49.3	21.95	100	100	100																																																																																								
	Nominal Value used	0.00628	-	0.00611	0.00506	0.00103	0.00611	0.00506	0.00103																																																																																								
Density	Count null blocks	42,938	173	1,291	7,564	8,041	42,777	4,197	10,455																																																																																								
	% null blocks	34.21	0.14	100	55.91	29.95	100	100	100																																																																																								
	Nominal Value used	2.35578	2.37214	2.37214	1.96503	2.97922	2.37214	1.96503	2.97922																																																																																								
Variogram	Nugget	Component	Sill	Range																																																																																													
				Axis 1	Axis 2	Axis 3																																																																																											
Mn%	7.25	Spherical 1	3.6	75.4	74	2.4																																																																																											
		Spherical 2	4.55	130	136	14.2																																																																																											

Criteria	Comment																
	<ul style="list-style-type: none"> An inverse distance estimation (to a power of 3) was also completed as a baseline check to compare the OK against. The comparison between the two techniques did not highlight any issues in the OK estimate. The 2024 MRE was reviewed against the 2019 MRE and found to be comparable. Any discrepancies could be reasonably explained, for example, due to additional data, or changes in Resource Classification due to the change in drill spacing leading to increased confidence. <p>The 2019 MRE was reviewed against two previous MREs, one completed by Snowden in 2011 and another by Extomine in 2017.</p> <p>No assumptions have been made regarding the recovery of by-products.</p> <p>No deleterious elements were estimated.</p> <p>The parent block size is 50 x 50 x 1m, with blocks aligned orthogonal to the grid (no rotation). The sub-block size is 5 x 5 x 0.5m.</p> <p>This is based on an average drillhole spacing across all deposits of 100 x 100m, with 1m samples down hole, such that there is adequate sample support for the blocks.</p> <p>Estimation for all elements and density was completed using OK and 3 search passes as below.</p> <p>All search ellipses were orientated at 90° azimuth, no plunge and -90° dip.</p> <p>The run 1 and 2 searches required a minimum of 5 drillholes. The ellipse sectors were octants, with a maximum of 5 samples per sector and a minimum of 5 total samples required for estimation.</p> <p>The run 3 search had no minimum number of drillholes. One sector was used, with no maximum number of samples.</p> <table border="1" data-bbox="521 837 1364 1058"> <thead> <tr> <th>Run</th> <th>Azimuth (m)</th> <th>Dip (m)</th> <th>Plunge (m)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>120</td> <td>72</td> <td>6</td> </tr> <tr> <td>2</td> <td>240</td> <td>144</td> <td>12</td> </tr> <tr> <td>3</td> <td>500</td> <td>300</td> <td>50</td> </tr> </tbody> </table> <p>No assumptions were made regarding selective mining units for the MRE.</p> <p>No assumptions were made about correlation between variables.</p> <p>The 2024 MRE approach with respect to the geological interpretation, in that hard domain boundaries were used for the geological interpretation and the mineralisation envelopes.</p> <p>The mineralisation interpretations were constrained within the geological boundaries. A geological cut-off grade of 6% Mn was used for the interpretation of the mineralised envelope.</p> <p>Wireframes were used to assign the domains into the block model, then filter conditions were applied during estimation such that only blocks within the relevant domain were populated.</p> <p>Grade cutting or capping was not used prior to estimation, as no extreme values were observed.</p>	Run	Azimuth (m)	Dip (m)	Plunge (m)	1	120	72	6	2	240	144	12	3	500	300	50
Run	Azimuth (m)	Dip (m)	Plunge (m)														
1	120	72	6														
2	240	144	12														
3	500	300	50														

Criteria	Comment
	<p>Density values below 1.4 g/cm³ were excluded.</p> <p>The block model was validated globally and locally at key stages during the construction and estimation processes using Micromine software.</p> <p>Basic block model checks such as reporting on the minimum and maximum of each attribute were used to ensure all blocks were populated. A check was also performed for overlapping blocks, of which there were none.</p> <p>Visual validation was completed by comparing the block grade to the drillhole grade. There was close correlation between raw and modelled grades.</p> <p>Global statistical validation was completed by comparing statistics between the composited, and estimated grades.</p> <p>Local validation was completed by using trend/swath plots by easting, northing and RL slices.</p> <p>There were no concerns with the outcomes of the validation checks.</p>
Moisture	<p>The tonnages have been estimated on an assumed dry basis.</p> <p>No work has been carried out to determine the moisture content of the material.</p>
Cut-off parameters	<p>Cut-off grade of 7% Mn was used for reporting the Mineral Resource estimate.</p>
Mining factors or assumptions	<p>Clause 20 of the JORC (2012) Code requires that all reports of Mineral Resources must have reasonable prospects for eventual economic extraction, regardless of the classification of the resource. The Butcherbird Resource passes the RPEEE hurdle on the basis that the mine was producing as recently as late 2023.</p>
Metallurgical factors or assumptions	<p>The Project process facility has been designed to produce 1.1 Mtpa of manganese oxide ore. The design of the plant assumes twenty-four hours per day seven days per week operation at a nominal throughput of 858.6 dry tonnes per hour, with annual plant utilisation of 6,570 hours. The processing facility utilises recognised technology for ore processing circuits and follows a processing route of:</p> <ul style="list-style-type: none"> • Crushing. • Screening. • Scrubbing. • DMS Separation. • Tails Thickening and Water Recovery. • Tailings storage. <p>The Project has been the site of a smaller commercial pilot process facility that operated for over two years processing the Butcherbird ore through a flowsheet comprising these principal process steps. Process data from the piloting phase has been compiled together with historical lab metallurgical test data to develop a grade recovery model that has been used to underpin the assumptions in the financial model that supports this Reserve¹⁹.</p> <p>To develop this model, the following data sets have been used:</p> <ol style="list-style-type: none"> 1. Butcherbird production and metallurgical data.

¹⁹ Reference: Company ASX Release dated 19 December 2019 and 23 March 2020.

Criteria	Comment
	<p>2. Site laboratory data. 3. PSD Analyses (production). 4. Product dispatch data.</p> <p>Refer to Section 3 for further discussion on metallurgical assumptions with respect to the Ore Reserve estimation.</p>
Environmental factors or assumptions	<p>Environmental studies for both Terrestrial Fauna and Flora have been completed for Prefeasibility studies. No environmental concerns or issues were identified during this study.</p>
Bulk density	<p>Density (SSD) in the Yanneri Ridge deposit was interpolated in the 2024 model using Ordinary Kriging. All blocks were estimated at the end of the third search pass.</p> <p>There were no downhole geophysical density measurements at the Coodamudgi deposit so a nominal mean density for each domain was assigned to the relevant blocks (2.37 g/cm³ in MNSHALE, 1.96 g/cm³ in HCAP and 2.97 g/cm³ in BS1).</p> <p>For the 2019 component of the MRE, density in the Mundawindi and Richies Find deposits had been interpolated using a nearest neighbour approach. There were 412 blocks with no density information. Of these, 212 blocks were mineralised (≥7% Mn). The empty density values in these 212 blocks were replaced with the mean density for the mineralised shale of 2.327g/cm³.</p> <p>The SSD down hole readings were recorded at 0.2 cm intervals which were composited to 1 m intervals.</p> <p>A programme of dry bulk density determination is required to adjust the geophysical density data to dry bulk density.</p> <p>The density data in the MRE is not dry bulk density data. There is the potential for minor overestimation of tonnes. Reconciliation data has not been available to assist.</p>
Classification	<p>The resource classification for the Butcherbird Project was based on the following criteria:</p> <ul style="list-style-type: none"> • drill hole spacing analysis project • confidence in the interpretation of the relevant domain • continuity of grade <p>All the material in both the Mundawindi and Richies Find prospects estimated in the 2019 MRE is classified as Inferred.</p> <p>The mineralised shale in the Yanneri Ridge deposit is classified as Measured in the 50 x 50m drill spacing area, as supported by the outcome of the drillhole spacing analysis project. Similarly, the project showed that a minimum spacing of 100 x 100m was required to support an Indicated Resource. This classification was applied to the rest of the Yanneri Ridge deposit, except for a small area in the north which did not meet the criteria, and as such this area was classified as Inferred. The hardcap material in the 50 x 50m drilling areas is classified as Indicated due to the inherently variable nature of this material.</p> <p>The entire Coodamudgi deposit is supported by 100 x 100m spaced drilling and was therefore classified as Indicated.</p> <p>The mineralisation in the basal shale unit is Inferred as there is uncertainty at depth, due to less sample support.</p>

Criteria	Comment
	<ul style="list-style-type: none"> All relevant factors were carefully considered. Grade estimations were based on validated data using appropriate methods (e.g., kriging). Input data was verified with QAQC protocols, ensuring reliability. Geological continuity was supported by drill hole logging, and drillholes were adequately spaced. <p>The quantity and distribution of data are sufficient for supporting the assigned Mineral Resource Classifications.</p> <p>The Mineral Resource Classification accurately represents the Competent Person's view of the deposit.</p>
Audits or reviews.	Audit and reviews undertaken at Butcherbird include the MEC Metallurgical study and the Drillhole spacing study.
Discussion of relative accuracy/ confidence	<p>The 2024 MRE accuracy and confidence is commensurate with the applied Mineral Resource classification.</p> <p>Factors that could affect the relative accuracy and confidence in the estimate are the high zonal nature of the mineralised manganese bands and the high nugget effect.</p> <p>No quantitative test of the relative accuracy has been completed.</p> <p>There were no concerns with the block model validation checks which included global mean comparisons, visual checks of composite versus block grades, and swath plots by easting, northing and RL.</p> <p>Relative confidence in the underlying data, drillhole spacing, geological continuity and interpretations has been appropriately reflected by the CP in the Resource Classification.</p>

SECTION 4 - ESTIMATION AND REPORTING OF ORE RESERVES

Criteria	Comment
Mineral Resource estimate for conversion to Ore Reserves	<p>The Ore Reserve estimate has been based on the Butcherbird Mineral Resource estimate announced to the ASX on 29 October 2024 (274Mt @ 10% Mn).</p> <p>The Mineral Resources for the deposit have been reported inclusive of the Ore Reserves estimated and stated here.</p>
Site visits	<p>The Competent Person has visited the site on multiple occasions since January 2018 until November 2024. The following activities have been observed.</p> <p>Acquired a general familiarisation with the site including likely mining conditions, proposed pit location, waste dump location, site topography, site drainage and site access.</p> <p>Assessed proposed locations of mining and processing plant related infrastructure sites relative to the designed open pit.</p> <p>Observed resource drilling activities.</p> <p>Inspected air-core and diamond drill samples and drill hole sites to get an understanding of the variations in weathering profiles across the deposit.</p> <p>Viewed air-core, Reverse Circulation drill samples and diamond drilling results from selected holes across site.</p>

	<p>The Competent Person is familiar with the operation of mining and processing of manganese mineralisation and the logistics operations in the Pilbara region of Western Australia having operated remote manganese exploration, mining, processing and logistics operation in Western Australia across 25 years.</p>
Study status	<p>This Ore Reserve has been supported by the completion of a Feasibility level of study (FS), as described in JORC (2012). The FS was completed in January 2025 and determined a technical and economical viable outcome for the Project.</p> <p>The PFS mine plan supporting the Ore Reserve is based upon a mine plan and mine designs undertaken by independent consultants that are deemed technically achievable, involving the application of conventional technology.</p> <p>The mine plan has been tested for economic viability using input costs, metallurgical recovery and expected long term metal price, after due allowances for payabilities and royalties. Financial modelling completed as part of the Prefeasibility Study and Ore Reserve shows that the Project is economically viable under current assumptions.</p>
Cut-off parameters	<p>The break-even cut-off used in the Ore Reserve estimate was a Net Cash Flow based cut-off calculation, taking into account site processing cost (with the inclusion of General Admin, sustaining capital, corporate overhead and mine rehabilitation fund) together with estimates for manganese sales prices at the time of the calculation.</p> <p>Mining recovery and dilution are accounted for in the modifying factors of the re-blocked geological model and calculation of Net Cash Flow values in the Resource model, metallurgical recoveries are calculated outside the Resource model.</p>
Mining factors or assumptions	<p>The Mineral Resource model was regularised to Selective Mining Unit (SMU) blocks of 5m E x 5m N x 1.0m RL to generate a diluted Mining model for mine planning tasks of pit optimisation and evaluation. The SMU block reflects expected mining equipment size, the geometry of the geology and anticipated ore losses. Mining dilution and ore loss were applied through regularisation of the resource model. The overall effect was a 5.4% loss of ore tonnes resulting in 5.1% loss of Mn metal applied to the mining model used for mine planning.</p> <p>The Project considers the Yanneri Ridge and Coodamudgi deposits. The deposits are generally near surface or outcropping and are most suitable to be mined by open pit mining methods utilising conventional mining equipment.</p> <p>Other nearby deposits including Mundawindi and Richies Find have not been evaluated as part of this study and will be the centre of future resource expansion works.</p> <p>Underground mining was not assessed.</p> <p>Final pit and interim stage designs were completed as part of the FS. The final pit design is the basis of the Ore Reserve estimate.</p> <p>The resource model was optimised using the Lerchs-Grossman (LG) algorithm with industry standard Whittle software. Nested pit shells were generated and tested with sensitivities on mining cost, processing cost, metal price, recoveries, and slope angles forming the basis of the optimal pit shell for the Butcherbird Project. Interim pit shells provided guidance for pit stages to maximise value and achieve operational design requirements.</p> <p>The resultant pit shells were used to develop detailed pit designs with due consideration of geotechnical slope parameters, minimum mining widths, bench heights, and ramp widths suitable for proposed mining equipment. These pit designs were used as the basis for production scheduling and economic evaluation.</p> <p>A minimum mining width of 40m was applied to the final and stage pit designs.</p> <p>The mining schedule is based on realistic mining productivity and equipment utilisation estimates, and considered the pit development requirements, the selected mining fleet productivity and the vertical rate of mining development. Staged pit designs along with the stockpiling strategy were applied to ensure a continuous supply of ore whilst deferring waste mining for as long as practically possible.</p> <p>The base case mining fleet used for the mining costs derivation for the Feasibility study included:</p>

- Komatsu PC1250 hydraulic excavator (Fleet numbers adjusted as required)
- Mining Trucks – Caterpillar 777 or equivalent (Fleet numbers adjusted as required)
- Caterpillar 988 Loader
- Caterpillar D10 Dozer x 2
- Caterpillar 16M Grader
- Water Cart - Battery Powered
- Contract Drill and Blast (as required)
- Ancillary service fleet

The mining schedule is based on supplying suitable material to the processing plant with a nameplate capacity of 1.1Mtpa.

The mine has assumed it will be contractor operated during the life of mine. There is approximately 600kt of ore stockpiled ready for reclamation on day one of commissioning. This provides certainty for the initial ore supply and the existing open pit has established accesses and mining faces with minimal requirements to pre strip waste. Mine scheduling has prioritised low stripping ratio and non-drill & blast activities during the early years of the schedule.

In the estimation of the Ore Reserve, Inferred Mineral Resources were excluded from pit optimisation, mine schedules and economic valuations utilised to validate the economic viability of the Ore Reserves to prove that the Ore Reserve is technically achievable and economically viable without the inclusion of the Inferred Resource. Subsequent to establishing that the project was economically profitable, Inferred material that was included in the mine schedules as waste, was made available as ore feed if it was economically practical to do so.

Waste material from mining activities will be disposed of as follows:

- Topsoil will be disposed of at designated stockpiles for application in on-going rehabilitation activities.
- Some waste rock may be utilised to expand the Run of Mine (ROM) pad, windrows or ramps
- Some waste rock may be utilised to construct on-going Tailings Storage Facility (TSF) lifts.
- Excess waste rock will be disposed of in designated engineered surface and In-pit waste dumps.

There are current Port agreements and customer contracts in place. Ongoing discussions and negotiations are occurring to reflect the increased volumes and quality opportunities planned for the expansion.

Geotechnical modelling was completed based on field logging and laboratory testing of selected diamond drill core samples from a total of fifteen (15) diamond cored boreholes within the pit shell. The geotechnical slope design parameters used were based on work completed by Peter O'Bryan and Associates Pty Ltd. The open pit designs are based on the recommended geotechnical design parameters and current exposed mining slopes of up to 20 vertical meters have remained observable and stable as evidence of practical and achievable geotechnical assumptions.

Metallurgical factors or assumptions

The Project process facility has been designed to produce 1.1 Mtpa of manganese oxide ore. The design of the plant assumes twenty-four hours per day seven days per week operation at a nominal throughput of 858.6 dry tonnes per hour, with annual plant utilisation of 6,570 hours. The processing facility utilises recognised technology for ore processing circuits and follows a processing route of:

- Crushing.
- Screening.
- Scrubbing.
- DMS Separation.
- Tails Thickening and Water Recovery.
- Tailings storage.

The Project has been the site of a smaller commercial pilot process facility that operated for over two years processing the Butcherbird ore through a flowsheet comprising these principal process steps. Process data from the piloting phase has been compiled together with historical lab metallurgical test data to develop a grade recovery model that has been used to underpin the assumptions in the financial model that supports this Reserve²⁰.

To develop this model, the following data sets have been used:

5. Butcherbird production and metallurgical data.
6. Site laboratory data.
7. PSD Analyses (production).
8. Product dispatch data.

The modelled data show, as expected, that grade and recovery are inversely related and a grade cut must be selected to maximise profitability.

The optimisation shell generated at was evaluated at an assumed 60.1% recovery, producing an average product grade of 31.5% Mn. The underpinning feasibility study further refined the targeted point on the curve to a slightly lower recovery of 59.1% but at an increased product grade of 31.6% Mn product.

In practice, the operation will likely vary the point on the grade/recovery curve that is optimal to suit the conditions at the time and so this is considered appropriate.

The simplified plant flowsheet is shown in Figure 4.

²⁰ Reference: Company ASX Release dated 19 December 2019 and 23 March 2020.

Specific equipment selection for the flowsheet was developed using experience from the pilot plant including factors such as throughput and recovery performance combined with knowledge of how the Butcherbird ore performs, with particular regard for the high clay content of the lateritic ores. Based on this information and experience, two main changes were made to the flowsheet from the pilot plant with a shift to a rolls crusher or mineral sizer for the primary and secondary crushing stages and a dense media separation (DMS) heavy-media drum for the final stage of the comminution process.

The rolls crusher has been selected as it is known to perform more reliably than a jaw crusher in high clay environments. The two-stage process sizing was selected to maximise recovery and minimise downtime due to potential process blockages caused by oversized ROM feed.

Test work completed at the Bootu Creek Mine provided important performance information to guide the process design activities for the DMS circuit²¹. And the DMS drum in the base case flowsheet is a copy of the Bootu Creek operation and is upscaled to achieve the same throughput and performance. All equipment are selected on the higher throughput requirement and selected from vendor specific data to achieve the operational performance.

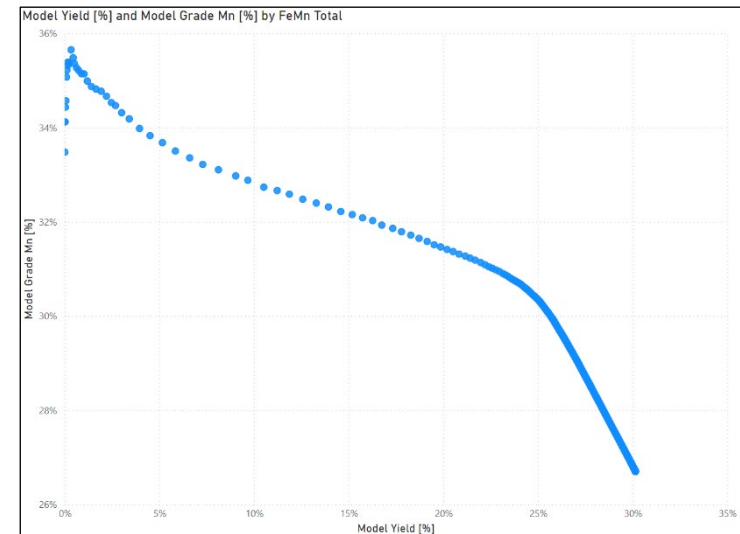


Figure 6 Grade yield model for Butcherbird ore.

This work indicates that a product grade of 31.5%Mn can be achieved at a metal recovery of 60.1%. It is expected that process throughputs, changes in screen deck sizes, and specific gravity adjustments in the DMS will be able to be fine-tuned with operational experience to improve recovery and yield once operational.

Environmental

Base case environmental surveys were completed, and relevant Regulatory Approvals have been received.

A population of Priority Flora habitat has been avoided with a simple design adjustment of a waste rock landform. This redesign is included in the study and scheduling plans with negligible cost impact.

The results of Stygofauna Assessment in 2021 and 2022 sampling events have demonstrated that no stygofauna species within the predicted Eastern bore field impact area are restricted. They have been found outside of potential bore field drawdown impact areas and distant from proposed mining operations where indirect impacts may occur.

Waste rock is typically not sulphidic and hence not acid forming. As such the waste does not need any special management.

Tails are benign and are essentially water and clay with much of the manganese removed and a small amount of inert flocculant used in the thickening process. These will be stored in the tails storage facility that has been constructed using waste rock and course tailings.

Environmental and social impact assessments have been completed for the Project with no adverse findings.

A Mining Proposal, Mine Closure Plan and Clearing Permit are currently approved for the Butcherbird Project. Addendums to qualify the proposed increased in quantities have been lodged with DMIRS and are expected to be approved by Q1 2025.

Infrastructure

Infrastructure is presently onsite and available to support a fast restart of mining activities.

²¹ Reference: Company ASX Release dated 28 July 2022.

	<ul style="list-style-type: none"> • Site Access via the Great Northern Highway to the Project and a road for approximately 1km to site including APA Ltd approval for the Gas Pipeline crossing. • Site Development and Infrastructure including clearing, levelling and bulk earthworks, access roads linking the various operational centres (Mine, Process Plant, Administration etc.), drainage and surface runoff and fencing of operational areas. • Base load power supply of 3 x 650kW is installed using a diesel generating solution with reticulation servicing the processing plant and office/workshop area. Water bores at the bore field each have an individual diesel generator. • Water Supply – water for construction, mining, processing the ore and other site activities will be sourced from groundwater in the area to the east of M52/1074. It is considered that the site has adequate groundwater supplies for the foreseeable future, but water exploration shall continue to ensure long term water security given the significant life of the mine. • Ore stockpiling and ROM pad reclaiming, primary crushing, scrubbing, site laboratory, workshop, screening and ore sorting facilities. Where new infrastructure is required for the upgraded processing plant, full replacement and construction costs have been incorporated into the feasibility study. • A paddock style Tailings Storage Facility (TSF) has been established with current regulatory approval for progressive downstream raises to meet the new production requirements for at least the first 6 years of operation. Future additional TSF designs are well advanced and will provide additional storage solutions for the current planned LOM. • Onsite Services including reticulation of power, internet and phone communications, water around the operational centres, provision of lighting, sewage and wastewater services, fire, compressed air and dust suppression systems, waste disposal, bulk fuel receipt, storage and distribution. • Buildings including the provision administration, workshops, logistics hubs, warehousing and other non-process or mining structures. <p>The following infrastructure has been specifically excluded as part of the Pre-Feasibility Study:</p> <ul style="list-style-type: none"> • The site will currently not include a mining camp, personnel will be housed at nearby established facilities. The accommodation cost of all personnel has been included in the study. • The site will not have an aerodrome but will utilise the airport at Newman, approximately 120km North of the Project. This cost has also been included.
<p>Costs</p>	<p>MINING COSTS</p> <p>Mining operating costs were sourced from Dave Clarke from Minero Consulting for the proposed mining operation. The costs were derived from first principle using a logical and detailed mine design and mining schedules based on optimised pit shells.</p> <p>The mine was assumed to be contractor operated during the life of mine with an additional mining contractor cost included in the study.</p> <p>PROCESSING AND INFRASTRUCTURE CAPITAL COSTS</p> <p>The processing plant, bore field, access roads and associated infrastructure capital estimate was estimated as follows:</p> <ul style="list-style-type: none"> • The construction capital cost estimate was compiled based on a Process Flow Diagram which was developed from the test work programs described above. Design criteria and detailed designs were completed. Budget level quotations were sourced from OEM's and other suppliers based on these detailed design and design criteria. • The estimated accuracy is considered -20% / +20% as a large component of the capital estimate was made using OEM quotes.

	<ul style="list-style-type: none"> All pricing in the capital estimate has been aligned with or obtained in the 4th quarter of 2024. <p>PROCESSING and INFRASTRUCTURE OPERATING COSTS</p> <p>Processing and site administration operating costs were developed from first principals.</p> <p>Underlying assumptions were as follows:</p> <ul style="list-style-type: none"> The processing plant and major infrastructure would be purchased by Element 25 as described previously. An organisation chart was developed to include management staff and process plant and site admin personnel. Staff and wages salaries were sourced from industry recruitment agencies. Power costs were sourced based on the hire of suitable diesel generating units, which were sized in the process plant capital calculations. Diesel usage for the portable crusher and screens, diesel generating units and vehicles was based on assumptions as to diesel usage sourced from suppliers. Mobile plant and light vehicles will be hired and hire rates were sourced from suppliers. Maintenance spares were allowed for at 4% of capital costs per annum. Other miscellaneous site operating costs were sourced from remote mine sites of a similar scale to the proposed Project mine site. <p>CONCENTRATE TRANSPORT AND PORT CHARGES</p> <p>Concentrate transport costs were derived from quotations from suitable industry transport groups and recent contract rates.</p> <p>Element 25 has a current agreement with Pilbara Ports and the operators of the Utah Point facility that have informed the likely future cost of storage and handling.</p> <p>SUSTAINING CAPEX</p> <p>Three items of sustaining capital were allowed for:</p> <ul style="list-style-type: none"> Great Northern Highway (GNH) Underpass – An allowance of \$10M was made in years 7 & 8 for a tunnel to access the west Yanneri Ridge. This will allow ore mined at West Yanneri Ridge to be mine and crushed at the pit. The crushed ore would then be conveyed back to the processing facility via a conveyor, through a tunnel under the GNH to the processing facility. This will minimise ore haulage and issues associated with crossing the GNH. This is an allowance only. Site Rehabilitation – An allowance of \$10M was made at the end of the mine life for rehabilitation of the mine site. Miscellaneous and ongoing small capital purchasers are included in the operating maintenance costs allowance.
<p>Revenue factors</p>	<p>No factors were applied in the application of the metal prices stated in the above sections.</p> <p>As shown in the PFS the head grade determines the process cost based on the need to produce the target shipping grade of 31.6% Mn.</p> <p>Mining dilution and recoveries were taken into account as modelled/discussed elsewhere in this statement and as such no further factors were considered appropriate and were therefore not applied.</p> <p>The price used for in the whittle optimisation process, was a flat manganese index price of US\$5.75/dry metric tonne unit (dmu) (CIF China, high-grade manganese basis) that is now considered conservative, but remains valid.</p>

	<p>The price used in the updated feasibility study includes a higher long-term consensus manganese index price of US\$6.06/dry metric tonne unit (dmtu) (CIF China, high-grade manganese basis) from year 9 on.</p> <p>This is a dry tonne, and a 2% allowance is made for moisture.</p>
<p>Market assessment</p>	<p>The global manganese market is strong, but it is recognised that lower grade mining operations are the first to suffer if there is a downturn in manganese price.</p> <p>The existing medium grade manganese market (30% < Mn < 35%) is the largest growth segment of the manganese ore market. It is growing in overall volume terms, but it is further supported as higher-grade mines are depleted and replaced with medium grade manganese ores. The medium grade manganese market is currently greater than 9Mtpa and growing at in excess of 10% per annum over the past 3 years.</p> <p>Element 25 remains in advanced discussions with manganese traders and other potential offtake partners and as such E25 remain positive about selling the targeted volumes into the manganese market. The option to upgrade a portion of the Manganese production by an in-house downstream process is well advanced to becoming reality. Agreements, financial backing and designs are in the final stages of approvals to be able to generate a High Purity Manganese Sulphate product suitable for battery manufacturing. The diversification and upgraded product stream is an excellent risk mitigation strategy to counter changes in the market forces but, it was NOT considered as part of this study.</p>
<p>Economic</p>	<ul style="list-style-type: none"> • A financial model was developed to allow assessment of the economics of the proposed operation. Inputs into the financial model were: • Mine production schedule, incorporating ore loss and mining dilution and based on a practical mine design. • Mine operating costs, process operating costs and general and administrative costs as stated above. • Process recovery and performance criteria. • Ore Concentrate transport and port charges. • Manganese revenue based on a 31.6% manganese product grade as stated above. • Applicable royalties, taxes and duties per the mining code of Western Australia • Native Title and Farmer access payments in line with the various agreements. • Discount rate of 8% <p>The Project's sensitivity to various inputs were also investigated. The Project is most sensitive to manganese price, exchange rate and product grade whilst head grade is also important since processing costs are a function of head grade. Mine Scheduling has been carried out to allow early access to higher grade manganese ores, bringing forward cashflow and hence minimising risk.</p>
<p>Social</p>	<p>The Butcherbird project is located on two pastoral stations and the Company has an access agreement in place with both. These access agreements allow access to site and allow for the disturbance of the areas required for infrastructure and mining activities. Compensation for the station owners is built into the agreements.</p> <p>The Company has mining agreements in place with the two Native Title Groups whose lands the Project site covers. These mining agreements allow access to site and allow for the disturbance of the areas required for infrastructure and mining activities. Employment, training and compensation for the Native Title Groups are built into the agreements.</p>

	<p>Site mining personnel will be mostly contractor based overseen by a small Element 25 management team. The site processing team will be largely E25 employees.</p> <p>The site will operate on a Fly In/Fly Out (FIFO) basis, utilising Newman as a transport hub. Site rosters are yet to be finalised, but industry standard rosters have been allowed for in the model.</p>
Other	<p>A program of work relating to tenement security, land access and regulatory approvals has been ongoing since early 2020 and so it is considered that risks associated with site approvals have been identified and mitigated.</p> <p>To achieve state government approval to proceed with mining in Stage 1, the Project has acquired the following approvals:</p> <ul style="list-style-type: none"> • Clearing permit - DMIRS • Mining Proposal - DMIRS • Mine Closure plan - DMIRS • Project Management Plan - DMIRS • Operating Licence - DWER • Water Extraction Licence - DWER • Permission to Mine - DMIRS • Permission to mine within a Stock Route - DMIRS • Driveway permit - Main Roads <p>Some of the approvals have been amended to declare the additional quantities required for the planned expansion with the outstanding approvals expected in Q1 2025.</p> <p>The environmental and regulatory study program to date represent a thorough assessment of the proposed Project area in-line with Western Australian regulatory requirements. To date no material environmental or approvals risks have been identified.</p> <p>The Project financial outcomes are mostly sensitive to the exchange rate. This is discussed in the feasibility study.</p> <p>Change in metal prices, exchange rate and to a lesser extent operating cost and pit design parameters in the pit optimisation, can either increase or decrease the pit size and the associated ore reserve. The impacts of this are discussed in the associated feasibility study.</p>
Classification	<p>The main basis of classification of Ore Reserves is the underlying Mineral Resource classification. All Proved Ore Reserves have been derived from Measured Mineral Resources and all Probable Ore Reserves have been derived from Indicated Mineral Resources in accordance with JORC Code (2012) guidelines.</p> <p>The Ore Reserve classification reflects the Competent Persons' view of the deposits.</p> <p>No Inferred Mineral Resource is included in the Ore Reserves and the Project was proven to be financially viable. Inferred resources contained in the original mining schedule were subsequently included in the final financial model as an informed decision based on site experience.</p>
Audits or reviews	<p>No external Audits or Reviews have been completed. External and independent consultants created the Mineral Resource Model, the mine design, the mining schedule and the mining cost estimation as part of the due diligence.</p> <p>The Proved and Probable Ore Reserve classification conforms to the requirements of the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves, published by the Joint Ore Reserves Committee (JORC) of the Australasian Institute of Mining and Metallurgy (2012).</p>

	<p>Element 25 has recent and relevant site production experience and used internal review extensively throughout the study as a risk mitigation process.</p>
<p>Discussion of relative accuracy/ confidence</p>	<p>The Ore Reserve optimisation, mine design and estimate are based on 11.3% Measured and 88.7% Indicated Reserves.</p> <p>There is a small percentage of contained Inferred material within the mine design based on Proven and Probable ore material that was initially considered as waste to prove the viability of project. As this material will be mined, it has been considered appropriate that it can be considered economic to process.</p> <p>The estimate is therefore based on Measured 11.0%, Indicated 86.4% and Inferred 2.6% of the planned ore supply.</p> <p>In the opinion of the Competent Person, the Ore Reserve estimate is supported by appropriate design, scheduling, and costing work reported to a Pre-Feasibility Study level of detail. Cost assumptions and modifying factors applied in the process of estimating Ore Reserves are reasonable. These are subject to further refinement in additional studies and may influence the accuracy of the Ore Reserve.</p> <p>Metal price and exchange rate assumptions were set out by Element 25 and are subject to market forces and therefore present an area of uncertainty.</p> <p>In the opinion of the Competent Person, there are reasonable prospects to anticipate that all relevant legal, environmental and social approvals to operate will be granted within the Project timeframe.</p>

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