

Highlights

66Kt Under Sale Contracts - 35,000t Shipped

- Shipment departed Pt Hedland on 24 May 2022, carrying 35,002 tonnes of special high silica manganese concentrate from 100%-owned Butcherbird project.
- Higher contract pricing than previous shipments, partially off-setting continued elevated shipping costs stemming from ongoing global supply chain congestion.
- Handling properties of E25 concentrate continues to receive positive feedback from customers across the supply chain.
- Improved commercial outcomes despite unseasonal wet weather severely impacting mining and processing operations.
- 31,000t of concentrate in port, sale funds invoiced at the end of the quarter, with funds in transit at quarter end – now received.



Processing Optimisation Improvements Continue

- During the quarter, E25 took delivery of a new scalping screen and radial stacker conveyor units – a key initiative to alleviate material handling bottlenecks caused by high clay content feed.
- New equipment will allow redirection of material flow to bypass problematic grizzly design.
- Inclement weather has delayed installation of the units which will now be installed early in the September 2022 quarter to improve clay handling and increase throughput and production volumes.

Post Quarter-end Activities

- Assay results from a 34-hole, 904m RC drill program completed during the March 2022 quarter¹, confirming multiple extensions to known manganese mineralisation outside the current resource boundary(ies).
- The Malaysian city of Sarawak identified as a potential site for the Company’s first HPMSM processing facility.
- E25 in discussions with the Malaysian Investment Development Authority (MIDA) and the Sarawak State Government in relation to building the first planned conversion plant².

¹ Reference: ASX Announcement July 12 2022

² Reference: ASX Announcement July 18 2022

COMPANY SNAPSHOT

Market Summary

ASX code: E25
Shares on issue: 154M

Board of Directors:

Seamus Cornelius	Chairman
Justin Brown	MD
John Ribbons	NED

Element 25 Limited is developing the world class Butcherbird Manganese Project in Western Australia to produce high quality manganese concentrate and high purity manganese products for traditional and new energy markets.

Element 25 Limited (E25 or Company) (ASX: E25) is pleased to provide an update on operational and corporate activities completed from across the business during the three-month period ended 30 June 2022.

Operations continued at the Company’s 100% owned Butcherbird Manganese Project (Project) in Western Australia, highlighted by the successful dispatch of a 35,002 tonne shipment of special high silica manganese concentrate, with another shipment pending and material developments in both the Butcherbird mineral resource and processing plans immediately post quarter-end. 31,000t of an estimated 45,000t cargo had been transported to Port Hedland and invoiced under the terms of the offtake agreement at quarter end.

Production Summary	June 2022 Qtr.	March 2022 Qtr.
Mined Ore Tonnes	184,175	224,490
Product Tonnes	48,640	51,288
Increase/Decrease	-2,648	
Closing Stockpiles	40,458	26,164
Increase/Decrease	+14,294	

Figure 1. Butcherbird Production Summary

Commenting on the June 2022 quarter, E25’s Managing Director Justin Brown said: “Quarter 2 marked another step forward for the Company with the continued efforts to improve of our processing operations at Butcherbird. E25 also continues to confirm its status as a reliable supplier of manganese concentrate to global markets, at a time when commodity producers are facing extensive disruptions from a complex array of factors.

With additional shipments pending, the Company demonstrated its capacity to execute on core objectives while also making significant progress towards its staged expansion strategy, growing the manganese mineralisation at Butcherbird and advancing its goal of becoming an industry leading, world class, low-carbon battery materials manufacturer to supply the world’s growing need for sustainable battery materials.

The Company is also excited by recent developments post quarter-end where assay data confirmed multiple extensions to the known manganese mineralisation, and the management team held positive discussions with MIDA and the Sarawak State Government in relation to the construction of a new conversion plant in Sarawak to produce high purity manganese for lithium-ion batteries.”

Butcherbird Operations

Unseasonal Wet Weather Production Impacts

Unseasonal rains commenced mid-May 2022 which had a significant impact on operations with twelve days of inclement weather recorded on site for a total of 110mm of rainfall. Despite the best efforts of our operational team, this resulted in significant lost production hours over the four weeks to early June 2022 and continued to hamper processing throughput after that time.

In light of the weather conditions, the operations team have delivered an excellent result with significant improvements in commercial outcomes over the quarter compared to previous reporting periods. The team will build on the experience gained to implement strategies to mitigate future events of this type, although it is important to note that the timing and magnitude of the wet weather was unseasonal.

Successful Shipment

During the quarter, the MV Aquamarine SW left Port Hedland with 35,002 tonnes of a special high silica manganese concentrate blend on board. With improved prevailing prices on manganese ore, the Company received a higher sale price than for previous shipments which improved cashflows for the quarter.

At quarter-end, preparations for a further shipment of approximately 45kt of material was nearing completion. Funds for provisional payments for 31Kt of the shipment had been invoiced and were in transit at the end of the reporting period, with cleared funds received post quarter end.

Processing Plant Optimisation

E25 continued to undertake rectification works around the primary comminution circuit to alleviate throughput bottlenecks caused by material handling challenges due to high clay content feed. The first stage of this work saw the mobilisation to site of a scalping screen and radial stacker conveyors to allow clay rich ore feed to be better managed through the front end of the plant and eliminate one of the biggest challenges in achieving nameplate throughput volumes.

Installation of the additional equipment has been delayed by the high rainfall experienced during the quarter, however these rectification plans are now being progressed as a priority.

This is the first of a series of steps identified in the review which are expected to lead to improved throughput volumes and improve production once completed.

A second initiative has been focussing on improving the plant uptime and availability and to this end, a new maintenance and critical spares system is being rolled out across the site to raise plant availability to a targeted 85%.

These two initiatives are intended to address the shortfall in production volumes which have hampered the progress of the operation toward the planned stage two expansion work.



Scalping screen and radial stackers mobilising to Butcherbird.

Post Quarter End Activities

Extension of Manganese Mineralisation at Butcherbird

In July 2022, assay results were received for exploration drilling completed in the previous quarter. A reverse circulation drilling programme comprising 34 holes for 904m was completed in the first quarter of 2022 targeting areas where there was no historical drilling. The programme was designed to test for extensions to the known manganese resource areas. The drilling primarily targeted the areas to the west and south of the Ilgarari Ridge deposit. Manganese mineralisation was logged multiple drillholes and assays confirmed commercially significant grades and widths of manganese in multiple holes.

Several holes were drilled to sterilise potential infrastructure locations as part of the planning for the proposed expanded production at Butcherbird, however a number these holes also intersected significant manganese mineralisation forcing a re-evaluation of the proposed layout.

The new information will be included a future resource model update for Butcherbird. Further drilling being planned to infill and better define mineralisation extensions and evaluate further extensions to mineralised trends.

Location Update for HPMSM Processing Plant

E25 also provided an update with respect to the planned production of high purity battery grade manganese sulphate monohydrate (HPMSM) from manganese oxide concentrates currently produced at the Butcherbird Project.

As part of the ongoing Feasibility Study (FS), multiple locations are being assessed with respect to the preferred location for the first HPMSM module, based on a design philosophy of “design one – build many” (DOB M). As part of that process, E25 are currently in discussions with the Malaysian Investment Development Authority (MIDA) and the Sarawak State Government in relation to building the first planned conversion plant in Sarawak, Malaysia.

Company executives and technical team members visited Sarawak in May 2022 to meet with Sarawak Deputy Premier and Minister of International Trade and Investment Datuk Amar Awang Tengah Ali Hasan as well as MIDA delegates and local consulting groups who can assist in project delivery once a site is finalised.

The Sarawak Deputy Premier and his delegation subsequently met with E25 senior project team members in Perth Western Australia. During the meeting, Element 25 further briefed the Sarawak delegation on the proposed investment in the manufacturing plant (subject to regulatory approvals and project financing).



Figure 2. Multiple potential processing plant locations are being investigated as part of the HPMSM Feasibility Study

Project team focus

E25’s Business Development team is focussing on the next stages of the multi-stage development strategy, including a Stage 2 expansion of the concentrate business followed by a Stage 3 development to convert the concentrate material into HPMSM for electric vehicle EV batteries to power the global transition away from fossil fuel powered mobility.

Manganese is emerging as an increasingly important ingredient for EV batteries, with potential supply constraints for nickel and cobalt forcing battery manufacturers to look to high manganese cathodes to produce the vast amount of cathode material required by the EV industry in coming years³.

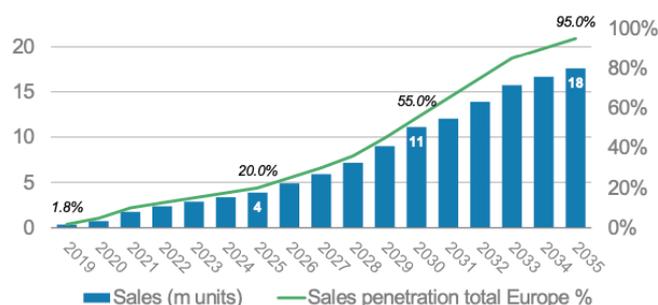
The Project is ideally placed to feed this potential demand, with **advanced flowsheet development** work undertaken in 2019 and 2020 confirming a simple leach process for E25 ores which, when combined with offsets, will target the world’s first **Zero Carbon Manganese™** for EV cathode manufacture⁴.

Battery EV Penetration Rate Forecast to Increase Further

As battery electric vehicle (BEV) makers seek to increase the uptake of electric vehicles, one commercial driver is cost reduction. VW’s Power Day suggested a 50% cost reduction for batteries with cell design (-15%), production process (-10%), **cathode/anode materials (-20%)** and battery systems (-5%) driving the change.

Global BEV penetration is expected to rise to 15.2% by 2025 and 39.5% in 2030 – led by Europe and China, according to Morgan Stanley’s latest report⁵. The main

driver in the cathode materials is a shift to a high manganese cathode material for the volume production, which is expected to underpin strong demand growth for battery-grade manganese sulphate. Current estimates put demand by 2030 at 13 times current supply and a deficit of 1.3Mt even factoring in planned supply increases.



Source: ACEA, Morgan Stanley Research estimates

Table 1. Europe BEV sales volumes (m) and penetration (%)

³ <https://thenextavenue.com/2021/01/22/svolt-opens-orders-for-its-nmx-nickel-manganese-batteries/>

⁴ Reference: Company ASX release dated 12 February 2019.

⁵ Morgan Stanley Research published 3 September 2021

About the Butcherbird Manganese Project

E25's Butcherbird Manganese Project is a world-class manganese resource with current JORC resources of more than 263Mt of manganese ore⁶. In May 2020, the Company completed a Pre-Feasibility Study (PFS)⁷ with respect to developing the deposit to produce manganese concentrate for export to generate early cashflow with a modest capital requirement⁸. Stage 1 of the Project development plan is complete and E25 is in production.

The PFS also highlighted the Project's potential for significant growth beyond the initial Stage 1 production volumes (the studies examined the potential for a 2X and 3X expansion to Stage 1, and the Company plans to undertake an expansion of the Project as soon as practicable once final process optimisation work is completed and relevant approvals are in place.

In addition to the concentrate export business, the Company has completed extensive research & development and laboratory test work into the production of high purity manganese products including battery grade manganese sulphate (HPMSM) and High Purity Electrolytic Manganese Metal (HPEMM). The work has highlighted that the Butcherbird ores are highly amenable to a low temperature, atmospheric pressure leach process using a plant based, renewable reagent, resulting in a low carbon, efficient extraction of the manganese into solution, a key requirement for the cost effective and sustainable production of HPMSM and HPEMM. Purification and crystallisation of the leach liquor will only produce co-products with no solid waste residue, significantly reducing the environmental footprint of the process over conventional methods.

Mineral Resources

Category	Tonnes (Mt)	Mn (%)	Si (%)	Fe (%)	Al (%)
Measured	16	11.6	20.6	11.7	5.7
Indicated	41	10.0	20.9	11.0	5.8
Inferred	206	9.8	20.8	11.4	5.9
Total	263	10.0	20.8	11.4	5.9

Notes:

- Reported at a 7% Mn cut-off for the Measured and Indicated categories and an 8% Mn cut-off for the Inferred categories.
- All figures rounded to reflect the appropriate level of confidence (apparent differences may occur due to rounding)

⁶ Reference: Company ASX release dated 17 April 2019.

⁷ Reference: Company ASX release dated 19 May 2020.

⁸ Reference: Company ASX release dated 3 December 2020.

Mining Reserve

Based on the results of the Pre-Feasibility Study completed in May 2020, E25 has published a Maiden Ore Reserve for the Project of 50.55Mt in the Proved and Probable categories⁹.

Classification	Tonnes (Mt)	Grade (Mn%)	Contained Mn (Mt)	Recovered Mn (Mt)
Proved	14.4	11.5	1.65	1.35
Probable	36.2	9.8	3.56	2.92
Total	50.6	10.3	5.21	4.27

Corporate

Appointment of Joint Chief Financial Officer and Joint Company Secretary

During the quarter, E25 announced the appointment of Mr Errol Turner and Mr Michael Jordon as Joint Chief Financial Officer and Joint Company Secretary¹⁰.

Subsequent to the quarter end, the Company advised that Mr Errol Turner stepped down as Joint Company Secretary, effective 29 July 2022 as part of the Company's transition towards streamlining the corporate functions of the business, and Mr Michael Jordon continues as Chief Financial Officer and Company Secretary.

Mr Jordon has over 25 years' experience across many industries with a focus on manufacturing and service delivery sectors. He has most recently held positions of Chief Financial Officer and Chief Operating Officer. Over the period he has been responsible for business start up development, merger and acquisition and business financing activities across Australia, Europe and America.

Investment Portfolio (as at 30 June 2022)

In addition to cash reserves, the Company also currently holds securities in the following listed entities:

Listed securities at market value:	No. Held
Anova Metals Ltd (ASX:AWV)	7,000,000
Buxton Resources Ltd (ASX:BUX)	356,001
Duketon Mining (ASX:DKM)	1,450,000
Danakali Limited (ASX:DNK)	6,001,331

¹⁰Reference: ASX Announcement April 4 2022

Justin Brown

Managing Director

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

ASX Additional Information

Appendix 5B Quarterly Report and Statement of Cash Flows

The ASX Appendix 5B quarterly report covering the three month period ending 30 June 2022 is attached and lodged with this report.

Payments to Related Parties and their Associates

In accordance with ASX Listing Rule 5.3.5, payments to related parties of the Company and their associates during the quarter totalled \$101,000

Competent Persons Statement

The company confirms that in the case of estimates of Mineral Resource or Ore Reserves, all material assumptions and technical parameters underpinning the estimates in the market announcements dated 17 April 2019 and 19 May 2020 continue to apply and have not materially changed. The company confirms that the form and context in which the competent person's findings are presented has not been materially modified from the original market announcements.

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.

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

ASX Additional Information for Quarterly Report to 30 June 2022

	Tenement reference	Location	Interest at beginning of quarter	Acquired/ Disposed	Interest at end of quarter
The mining tenements held at the end of the quarter and their location	E09/2415	Isle Bore WA	100%	N/A	100%
	E20/659	Eelya Hill WA	10%	N/A	10%
	E28/2577	Pinnacles WA	100%	N/A	100%
	E28/2761	Flanker South WA	100%	N/A	100%
	E46/1366	Black Hill WA	100%	N/A	100%
	E52/1529	Mt Padbury WA	100% (Note 1)	N/A	100% (Note 1)
	E52/2350	Butcher Bird WA	100%	N/A	100%
	E52/3606	Yanneri Bore WA	100%	N/A	100%
	E52/3706	Yanneri Pool WA	100%	N/A	100%
	E52/3735	Limestone Bore WA	100%	N/A	100%
	E52/3769	Kumarina WA	100%	N/A	100%
	E52/3779	Beyondie Bluff WA	100%	N/A	100%
	E52/3840	Woolgatharra Pool WA	100%	N/A	100%
	E52/3858	Yanneri Well WA	100%	N/A	100%
	E52/3973	Neds Gap WA	100%	Disposed	0%
	E52/4022	Corner Bore WA	100%	N/A	100%
	E52/4055	Weelarrana WA	100%	N/A	100%
	E52/4064	Neds Gap WA	0%	Acquired	100%
	L52/211	Limestone Bore WA	100%	N/A	100%
	L52/215	Butcherbird East 1 WA	100%	N/A	100%
	L52/216	Butcherbird East 2 WA	100%	N/A	100%
	L52/217	Butcherbird East 3 WA	100%	N/A	100%
	L52/218	Butcherbird East 4 WA	100%	N/A	100%
	L52/220	Butcherbird East 5 WA	100%	N/A	100%
	L52/221	Butcherbird East 6 WA	100%	N/A	100%
	L52/225	Butcherbird East 7 WA	100%	N/A	100%
	M52/1074	Yaneri Ridge WA	100%	N/A	100%
E57/1060	Victory Well WA	20%	N/A	20%	
E63/2027	Lake Johnston WA	100%	N/A	100%	

Notes:

- 1) 100% interest held in all minerals other than iron ore and manganese.