BOAB METALS LIMITED

19 January 2023

Sorby Hills Definitive Feasibility Study

A Strong Result Supporting Progress Toward a Decision to Mine

Boab Metals Limited (ASX: BML) ("**Boab**" or "**Company**") is pleased to present the results of the Definitive Feasibility Study ("**DFS**") on the Company's flagship Sorby Hills Lead-Silver-Zinc project ("**Sorby Hills**" or "**the Project**"), located in the Kimberley Region of Western Australia.

HIGHLIGHTS

- **Strong pre-tax economics including A$705M net cash flow, NPV$_8$ of A$370M, IRR of 35% and average annualised EBITDA of A$119M.**
- High-confidence study with up-to-date **tendered pricing for 75% of Capital Costs**, including Process Plant EPC, Open Pit Mining, Early Works, Tailings, Water Storage and infrastructure.
- **C1 cash cost of US$0.39/lb payable Pb** (including a net Silver credit of US$0.38/lb payable Pb) delivering an **average operating margin of 41%.**
- **Open pit Production Target of 18.3Mt** at an average grade of 3.4% Lead and 39g/t Silver.
- Production Target **underpinned 83% by Ore Reserves**, including a 53% increase in Proved Ore Reserves, highlights the Project's economic feasibility.
- **2.25Mtpa capacity conventional flotation Process Plant** producing an average of **103ktpa of Lead-Silver concentrate** containing 67kt of Lead and 2.2Moz of Silver.
- **Pre-production Capital Cost of A$245M** comprising:
    - A$131M for the tendered Processing Plant EPC package;
    - A$40M for the tendered Early Works and Infrastructure packages;
    - A$38M in Owners Costs and other capital items;
    - A$21M Contingency; and
    - A$15M in Pre-Production Operating Costs.
- **Significant pre-production upside potential** – Boab will look to incorporate the remaining Phase V and Phase VI drilling results at Beta and Norton into the Sorby Hills Resource, further optimisation of the mining schedule and recoveries and the opportunity to refine costs and identify cost savings throughout the contracting and detailed design process.
- Boab and 25% Joint Venture partner Henan Yuguang Gold and Lead Co Ltd (China's largest Lead smelting company and Silver producer) ("**Yuguang**") will work with potential financiers, including Northern Australia Infrastructure Facility ("**NAIF**"), Export Finance Australia ("**EFA**") and other domestic and international financial institutions, toward **a Final Investment Decision and a Decision to Mine in mid-2023.**

Managing Director	Directors	Registered Office	Telephone
Simon Noon	Gary Comb (Chairman)	4 Clive Street	+61 8 6268 0449
Company Secretary	Richard Monti	West Perth, WA	ASX Code BML
Jerry Monzu	Andrew Parker	6005, Australia	ABN 43 107 159 713

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Boab Managing Director and CEO, Simon Noon, stated:

"The delivery of the Sorby Hills Definitive Feasibility Study is the culmination of an enormous body of work completed to a high level of confidence and represents a strong result that supports progress towards a Decision to Mine. Highlights of the Study include:

- *An updated Mineral Resource Estimate by CSA Global achieving a 78% increase in Measured Resources, further enhancing the geological confidence of the Sorby Hills deposit.*
- *A 12% increase in Ore Reserves to 15.2Mt including a 53% increase in Proved Ore Reserves highlights the Project's economic feasibility.*
- *Completion of a comprehensive metallurgical program confirming high metal recoveries and providing robust input for the Process Plant design.*
- *Independent Technical due diligence on the Mineral Resource, Metallurgical test work program and ESG status review against global environmental standards.*
- *Updated Mine Plan undertaken by Entech Pty Ltd, including the incorporation of the Beta Deposit for the first time and scheduling to allow for in-pit tailings deposition in B-Pit and Omega South Pit thus minimising the cost and footprint of constructed tailing facilities.*
- *Updated Water Management strategy based on updated hydrogeological and hydrological fieldwork and modelling undertaken by GHD Consulting Engineers.*
- *Increase in the Process Plant capacity by 50% to maximise concentrate production and optimise unit operating costs.*
- *Highly respected engineering firm GR Engineering Services (GRES) has been selected as the preferred tenderer for the construction of the Process Plant.*
- *Execution of a Port Access and Services Agreement with Cambridge Gulf Limited for Wyndham Port securing a critical element of the path to market for the concentrates that will be produced at Sorby Hills.*
- *Execution of a Power Purchase Heads of Agreement with Horizon Power that incorporates renewable energy from the Ord River Hydroelectric Power Plant into a one-stop solution that simultaneously provides secure power, positive environmental outcomes, and economic benefit to the Sorby Hills Project.*
- *Acquisition by Boab of a 178-person accommodation camp to be utilised throughout the project construction to house project employees and contractors.*
- *Amendments to the EPA Approval to allow for the acceleration of Early Works including all-weather access, material laydown area and accommodation camp installation.*

The Study has been undertaken against a dynamic economic backdrop and has largely withstood the impact of global inflationary pressure. We are pleased to state that approximately 75% of the pre-production capital expenditure and direct mining costs are underpinned by current tendered pricing, thus minimising risk of substantial cost increases between study completion and execution of final contracts.

With the DFS released, the Company will now look to conclude negotiations with Offtakers which are well advanced, finalise Independent Technical due diligence on the Project and secure debt finance. We look forward to working closely with our Joint Venture partner Yuguang towards a Decision to Mine in mid-2023 and bringing Sorby Hills into production for the benefit of shareholders and the local Kununurra and East Kimberley communities."

Cautionary Statements

The DFS discussed herein has been undertaken to explore the technical and economic feasibility of developing an open pit mine and adjacent processing facility to economically and sustainably exploit the Sorby Hills Lead-Silver-Zinc Mineral Resource located in the Kimberley Region of Western Australia.

The Sorby Hills Project is subject to a Joint Venture Agreement between Boab and Yuguang. Boab holds a 75% interest in the Joint Venture via its 100% owned subsidiary Sorby Hills Pty Ltd. The Production Target and financial forecasts presented in the DFS are shown on a 100% Project basis.

The Production Target underpinning financial forecasts included in the DFS comprises 57% Measured Resources, 26% Indicated Resources and 17% Inferred Resources. The estimated Ore Reserves and Mineral Resource underpinning the Base Case Production Target have been prepared by a Competent Person in accordance with the requirements in the JORC Code.

There is a low level of geological confidence associated with Inferred Resources and there is no certainty that further exploration work will result in the conversion of Inferred Resources to Indicated Resources or return the same grade and tonnage distribution. The stated Production Target is based on the Company's current expectations of the future results or event and should not be solely relied upon by investors when making investing decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

The economic outcomes associated with the DFS are based on certain assumptions made for commodity prices, concentrate treatment and recovery charges, exchange rates and other economic variables, which are not within the Company's control and subject to change from time to time. Changes in such assumptions may have a material impact on economic outcomes.

To achieve the range of outcomes indicated in the DFS, debt and equity funding will be required. Investors should note that there is no certainty that the Joint Venture may be able to raise the amount of funding when needed and/or reach a Final Investment Decision by the date proposed in the DFS. It is also possible that such funding may only be available on terms that may be dilutive to, or otherwise affect the value of Boab's existing shares. It is also possible that Boab could pursue other 'value realisation' strategies such as a sale or partial sale of the Company's share of the Project.

This announcement contains forward-looking statements. Boab has concluded it has a reasonable basis for providing the forward-looking statements included in this announcement and believes it has a reasonable basis to expect it will be able to fund the development of the project. However, several factors could cause actual results, or expectations to differ materially from the results expressed or implied in the forward-looking statements.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the DFS.

Project Summary

The Sorby Hills Lead-Silver-Zinc Project ("**Sorby Hills**", the "**Project**") is the largest undeveloped, near-surface Lead-Silver-Zinc deposit in Australia. The Project comprises granted mining leases covering six known Lead-Silver-Zinc deposits in the Kimberley Region of Western Australia, 50km northeast of Kununurra and 90km east of Wyndham Port (Figures 1 & 2).

The Definitive Feasibility Study ("**DFS**") proposes the open-pit mining and processing of 18.3Mt of ore from five of the six deposits, namely: Omega, A, B, Beta and Norton. Mined ore will be treated via a simple crush-mill-flotation circuit at an initial rate of 1.5Mtpa expanding to 2.25Mtpa after 1 year of production. Concentrate produced at the Project will be transported ~150km by road in sealed half-height containers to Wyndham Port from where it will be shipped to market.

Over the initial 8.5-year processing period contemplated by the DFS, 18.3Mt of ore will be mined and processed through the Sorby Hills process plant to deliver an average 103ktpa of concentrate containing 64ktpa of payable Lead and 2Moz p.a. of payable Silver to generate a pre-tax NPV_8 of A$370M and IRR of 35% (Table 1, Figure 3). The DFS economics are underpinned by 15.2Mt of Ore Reserves (Table 2), and a large, well-defined 47.3Mt Mineral Resource (Table 3) that offers significant potential for low-risk mine life extensions including the incorporation of the latest results received from the Phase V and Phase VI drilling programs.

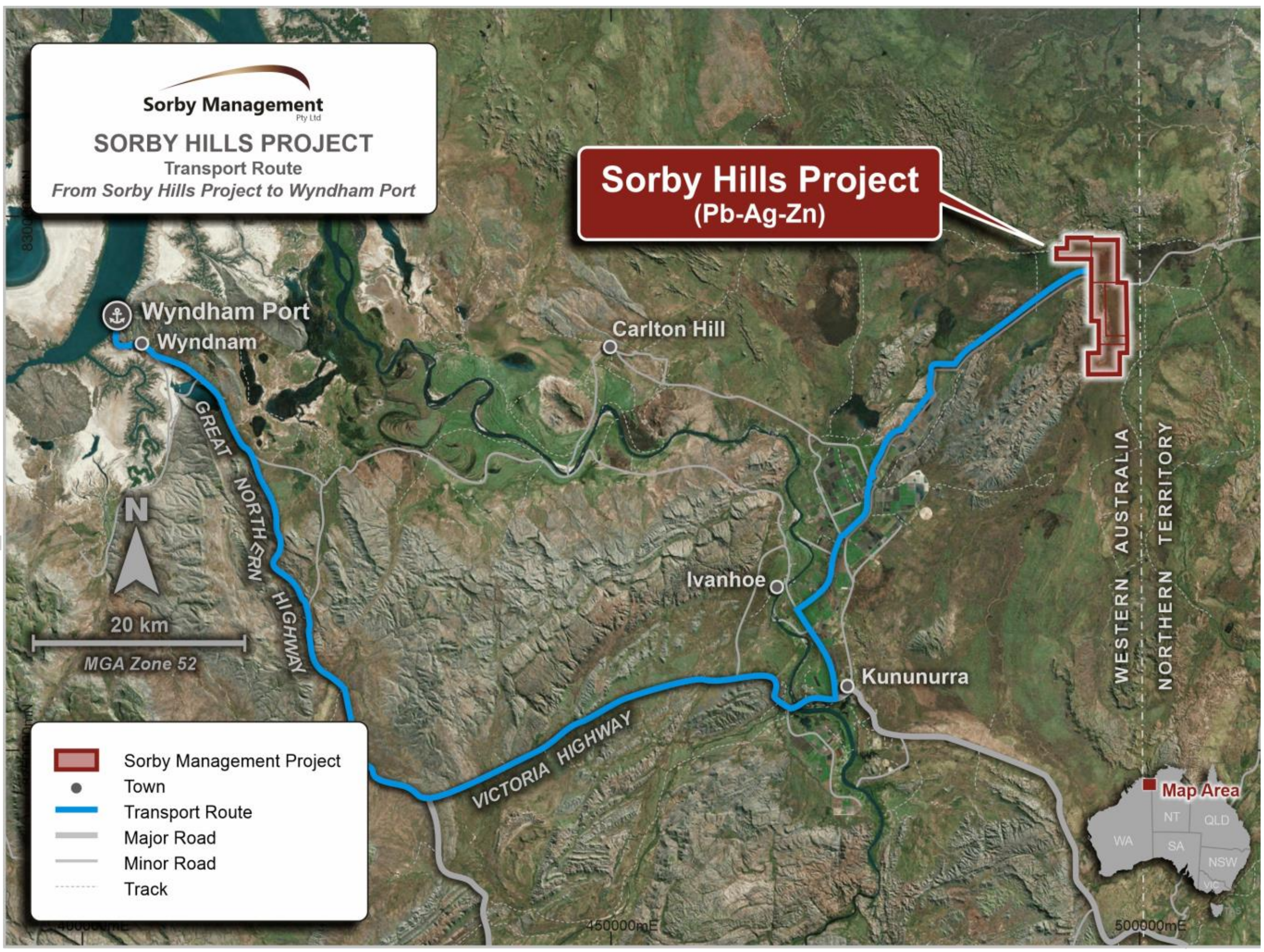

Figure 1: Location of the Sorby Hills Project

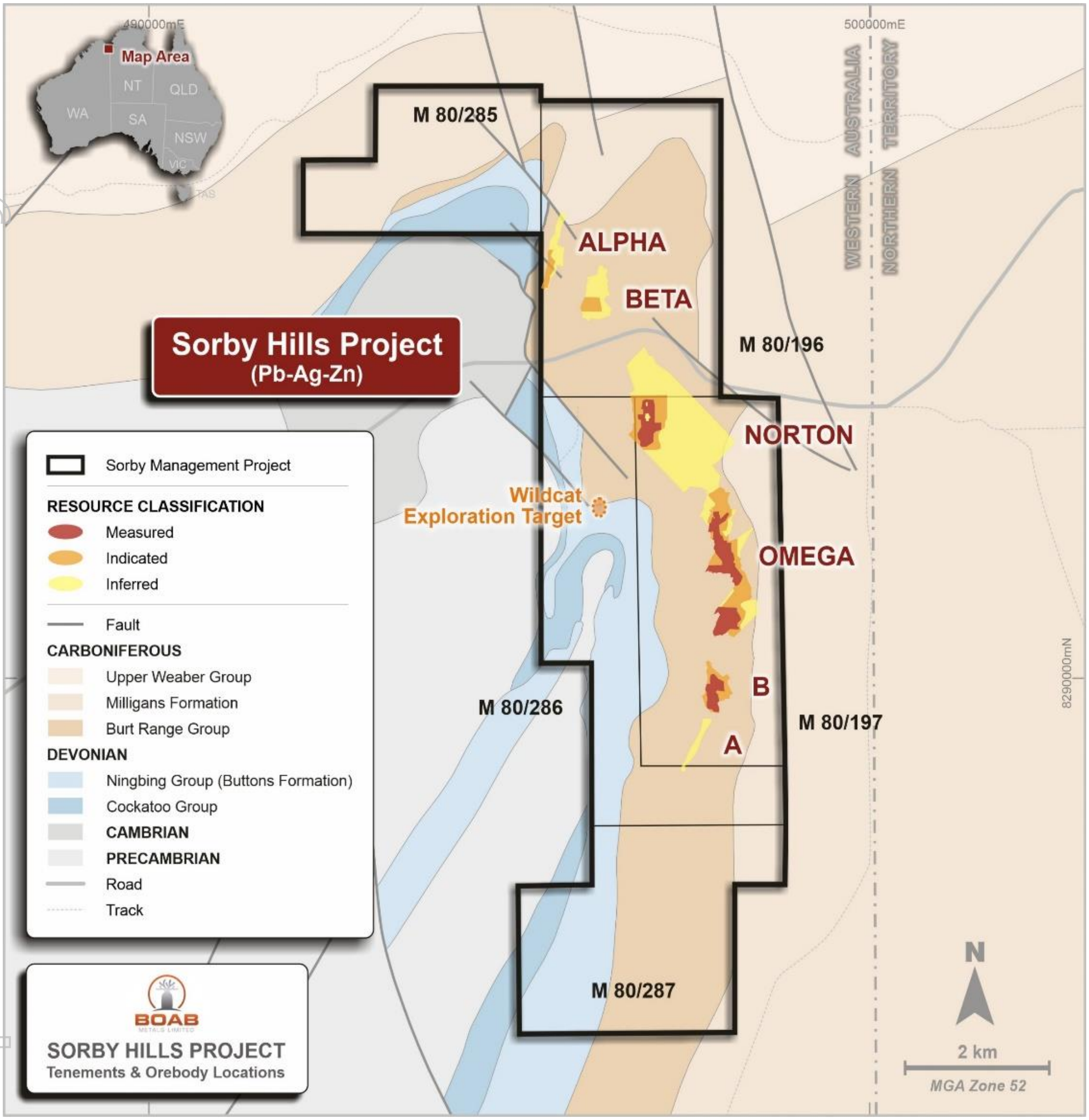

Figure 2: Project Tenements overlaid on the location of the Sorby Hills deposits and local geology

Table 1: Key Life of Mine Metrics

Item	Unit	Value
Physicals		
Life of Mine	Years	8.5
ROM Mined	‘000 t	18,263
Strip Ratio	Waste:Ore (t:t)	7.5
Processed Tonnes	‘000 t	18,263
Lead Grade	%	3.4
Silver Grade	g/t	39
Lead Recovery	%	91%
Silver Recovery	%	82%
Concentrate Produced	‘000 dmt	872
Avg Lead Grade	%	65.5
Avg. Silver Grade	g/t	665
Payable Lead	‘000 t	543
Payable Sliver	‘000 oz	17,232
Cash Flow		
Lead Revenue	A$M	1,790
Silver Revenue	A$M	692
Gross Revenue	**A$M**	**2,481**
Lead Treatment Charge	A$M	(159)
Silver Refining Charge	A$M	(32)
Royalties	A$M	(94)
Net Revenue	**A$M**	**2,196**
Logistics	A$M	(121)
Mining	A$M	(591)
Processing	A$M	(391)
G & A	A$M	(88)
Net Operating Cash Flow	**A$M**	**1,005**
Pre-Production Capital	A$M	(245)
Sustaining Capital & Closure	A$M	(55)
Net Project Cash Flow	**A$M**	**705**
Value Metrics		
Pre-Tax NPV_8	**A$M**	**370**
Pre-Tax IRR	**%**	**35%**
Average Annual EBITDA	**A$M**	**119**

**Macroeconomic assumptions for Lead, Silver and FX were based on the forward curves extracted from Bloomberg on 16 January 2023.*

Sorby Hills Ore Reserve Statement

Table 2: Sorby Hills Ore Reserve Statement

Ore Reserve Category	Ore (Mt)	Grade		Contained Metal	
		Pb (%)	Ag (g/t)	Pb (kt)	Ag (Moz)
B Pit	1.32	3.4%	18	45	0.7
Norton	1.87	4.0%	80	74	4.8
Omega Main	4.98	3.6%	42	179	6.7
Omega South	2.18	2.8%	27	61	1.9
Beta	-	-	-	-	-
Proved	**10.40**	**3.5%**	**42**	**358**	**14.1**
B Pit	0.94	3.0%	17	28	0.5
Norton	0.04	4.0%	40	2	0.1
Omega Main	2.30	3.8%	34	86	2.5
Omega South	0.62	3.2%	37	19	0.7
Beta	0.99	3.7%	38	37	1.2
Probable	**4.90**	**3.5%**	**32**	**172**	**5.0**
Total Ore Reserve	**15.20**	**3.5%**	**39**	**531**	**19.1**

Note: Tonnes and Grade are rounded. Reported at a 1.0% Pb cut-off. The above data has been rounded to the nearest 10,000 tonnes ore, 0.1% lead grade and 1,000 lead tonnes, 1g/t silver grade and 100,000 silver ounces. Discrepancies in calculated Contained Metal is due to rounding. Ore Reserves have been calculated using metal prices of A$3,313.91/t Pb and A$37.89/oz Ag and royalties of 4.3% of gross revenue including allowable deductions.

In conjunction with the DFS, Boab is pleased to announce an updated Ore Reserve for the Sorby Hills Project, as shown in Table 2. The Ore Reserve was prepared by independent mining consultants Entech Pty Ltd ("**Entech**") in accordance with the JORC Code 2012.

The DFS has been used as the basis to estimate Ore Reserve. The Ore Reserve was estimated from the Mineral Resource after consideration of the level of confidence in the Mineral Resource and taking into account material and relevant modifying factors. Measured and Indicated Mineral Resources have been converted to Proved and Probable Ore Reserves respectively subject to mine design physicals and an economic evaluation. Any Inferred material contained within the mine plan has been treated as waste for the purposes of the Ore Resource calculation.

The Ore Reserve estimate includes five open pits the basis for the Ore Reserve estimate, these include: B Pit, Omega Pit, Omega South Pit, Norton Pit, and Beta Pit. There are no Ore Reserves estimated for A Pit. Ore Reserve Pit designs are consistent with those used for the DFS except for the Beta Pit which was re-designed on account of the portion of Inferred Material in the DFS Production Target for Beta.

The 15.2Mt Ore Reserve is a subset of the 18.3Mt DFS Mining Inventory and represents a 12% increase over the previous 13.6Mt Ore Reserve estimate for the Project. Further details of the material assumptions underpinning the Ore Reserve are set out in the DFS Summary, Appendix 1 and Appendix 2 (JORC Table 1) of this announcement.

Sorby Hills Mineral Resource Estimate

Table 3: Sorby Hills Mineral Resource Estimate – Pb Domains only

Resource Classification by Deposit	Tonnes (Mt)	Grade			Contained Metal		
		Pb %	Zn %	Ag g/t	Pb kt	Zn kt	Ag koz
A							
Inferred	0.6	5.3%	1.0%	23	31	6	427
Sub Total	**0.6**	**5.3%**	**0.1%**	**23**	**31**	**6**	**427**
B							
Measured	1.4	3.8%	0.3%	19	52	4	859
Indicated	1.3	3.4%	0.3%	21	44	4	862
Sub Total	**2.7**	**3.6%**	**0.3%**	**20**	**97**	**8**	**1,720**
Omega							
Measured	8.5	3.3%	0.4%	37	279	32	9,995
Indicated	5.8	3.5%	0.4%	34	205	25	6,331
Inferred	2.9	2.7%	0.4%	26	76	13	2,414
Sub Total	**17.2**	**3.3%**	**0.4%**	**34**	**566**	**71**	**18,948**
Norton							
Measured	2.8	4.1%	0.3%	75	112	9	6,668
Indicated	2.1	3.2%	0.5%	38	68	11	2,617
Inferred	16.2	2.5%	0.5%	27	402	75	14,039
Sub Total	**21.1**	**2.8%**	**0.4%**	**34**	**590**	**96**	**24,090**
Alpha							
Indicated	0.7	2.6%	0.5%	41	18	4	923
Inferred	0.8	3.6%	1.2%	86	27	9	2,052
Sub Total	**1.5**	**3.1%**	**0.9%**	**64**	**45**	**13**	**2,975**
Beta							
Indicated	1.0	4.1%	0.2%	42	42	2	1,382
Inferred	3.2	3.4%	0.4%	43	109	14	4,474
Sub Total	**4.2**	**3.6%**	**0.4%**	**43**	**151**	**17**	**5,856**
Total Resource							
Measured	**12.6**	**3.5%**	**0.4%**	**43**	**444**	**45**	**17,521**
Indicated	**11.0**	**3.4%**	**0.4%**	**34**	**377**	**46**	**12,114**
Inferred	**23.6**	**2.7%**	**0.5%**	**31**	**645**	**117**	**23,406**
Total	**47.3**	**3.1%**	**0.4%**	**35**	**1,465**	**207**	**53,042**

Note: Tonnes and Grade are rounded. Reported at a 1.0% Pb Cut-Off. Discrepancies in calculated Contained Metal is due to rounding.

DFS Production Schedules

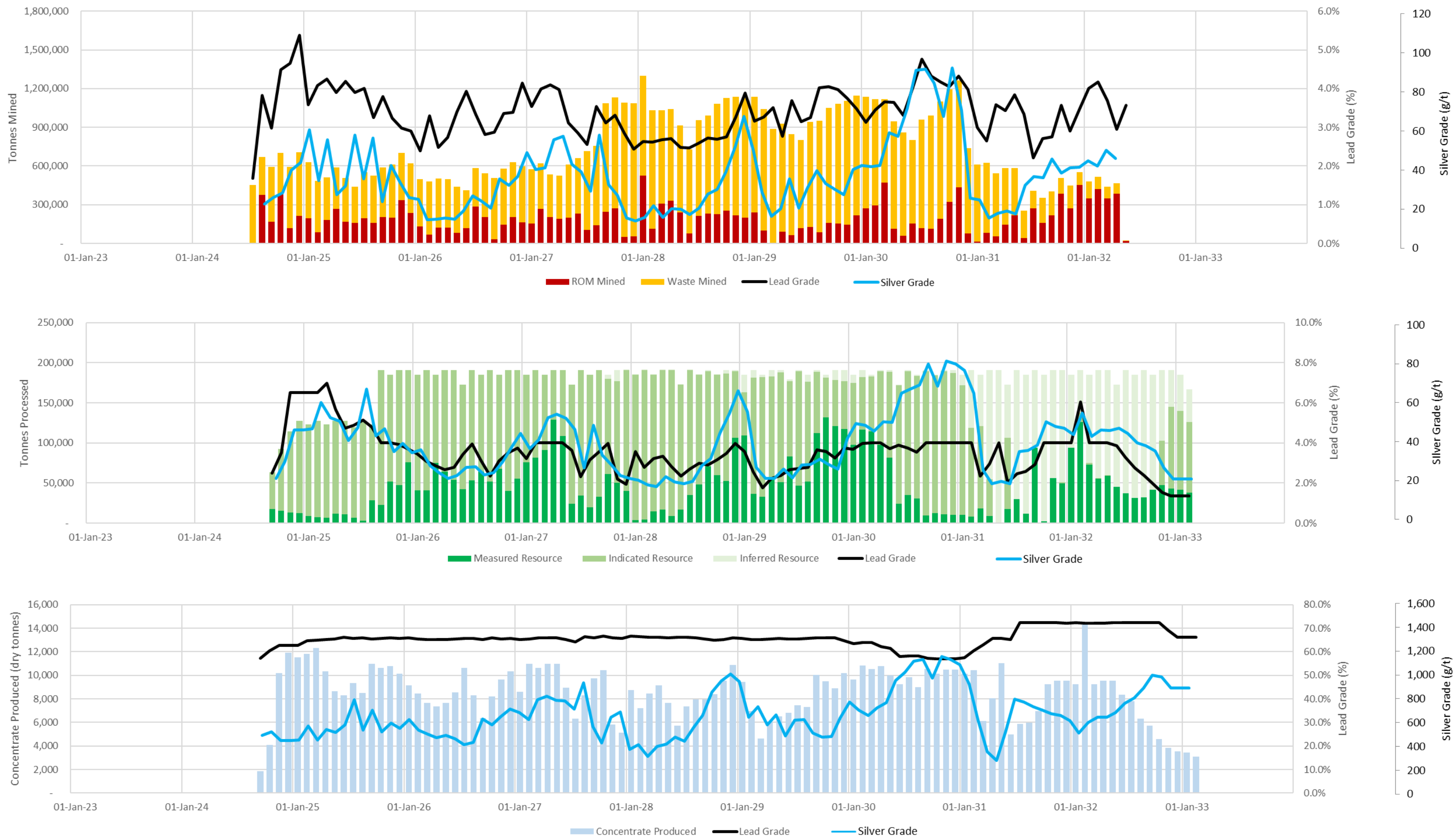

Figure 3: Mining Schedule showing ROM tonnes and Waste Tonnes mined with Lead and Silver Grade (Top), Processing Schedule showing Processed Tonnes with Resource Classification and Lead and Silver Grade (Middle) and Concentrate Schedule with Lead and Silver Grade (Bottom)

Macroeconomic Assumptions

Forward Curves extracted from *Bloomberg 16 January 2023* were used as the basis for the metal price and exchange rate assumptions over the quoted period, after which a flat metal price and A$:US$ exchange rate was assumed (Table 4).

Table 4: Macroeconomic price assumptions

Assumption	Unit	FY2023	FY2024	FY2025	FY2026	FY2027+
Lead Price	US$/t	2,259	2,268	2,269	2,254	2,251
Silver Price	US$/oz	24.8	25.8	26.4	27.3	27.5
Exchange Rate	A$:US$	0.70	0.70	0.70	0.69	0.68

Selling Costs

Industry standard metal in concentrate payabilities were adopted for Lead and Silver. Lead Treatment charges and Silver Refining charges are based on indicative terms discussed with a group of potential Offtakers. Royalties for Lead and Silver were applied are the statutory rate.

Capital Costs

Table 5: Capital Cost Breakdown

Item	Pre-production (A$M)	Sustaining (A$M)	Total (A$M)
Early Works / Bulk Earthworks / Road Construction	9.9	15.7	25.6
Process Plant and Non-Plant Infrastructure (NPI)	130.5	-	130.5
Tailings Storage and Evaporation Pond	18.0	1.9	19.9
Mine Water Settling Pond & Water Storage Facility	12.4	21.3	33.7
Accommodation refurbishment	4.1	-	4.1
Communications	0.9	-	0.9
Fuel Tanks	-	1.3	1.3
Testing Laboratory	-	0.0	0.0
Concentrate Transport & Containers	7.9	-	7.9
Owners Cost	25.3	5.8	31.0
Project Development Contingency	20.9	-	20.9
Pre-Production Operating Costs	14.6	-	14.6
Mine Closure	-	9.3	9.3
Total	**244.6**	**55.2**	**299.8**

Operating Cost Summary

Table 6: Operating Cost Summary

Item	Total (A$M)	A$/t ore	US$/lb payable Lead
Mining	591	32.4	0.34
Processing	391	21.4	0.22
G&A	88	4.8	0.05
Logistics	121	6.6	0.07
Lead Treatment	159	8.7	0.09
C1 Costs (ex Credits)	**1,351**	**73.9**	**0.77**
Net Silver Credits	(660)	(36.1)	(0.38)
C1 Costs	**690**	**37.8**	**0.39**
Royalties	94	5.2	0.05
Sustaining Capital	55	3.0	0.03
AISC	**840**	**46.0**	**0.48**

Project Cash Flows

The Project generates A$705M of pre-tax free cash flow over the Life of Mine with pre-production capital expenditure of A$245M, a maximum negative cash balance of A$272M and an average annualised EBITDA of A$119M per annum during operations. The Project generates a pre-tax NPV_8 of A$370M and an IRR of 35% (both measured from the start of construction) and a payback period of 2.5 years (measured from the start of operations). An annual summary of the Project financials, and the physicals underpinning them, are shown in Table 7.

Project Financing

It is proposed that the Project will be funded via a combination of debt (borrowed against 100% of the Project assets and cashflows) and equity contributed by the Sorby Hills Joint Venture partners in proportion to their interest in the Joint Venture.

Assessment of the debt-carrying capacity of the Project based on indicative commercial bank project financing terms and the DFS project cashflows demonstrate that the Project can support up to 60% gearing at a Debt Service Coverage Ratios typical of those required to support project financing.

The Company has had ongoing engagement with Australia Government lending agencies the Northern Australia Infrastructure Facility ("**NAIF**") and Export Finance Australia ("**EFA**"), as well as a range of local and international commercial banks. Selected financiers, including NAIF, undertook a site visit of the Sorby Hills project site and Wyndham Port in October 2021.

Following the release of the DFS, the Company will step up its engagement with Financiers, including the completion of typical project finance due diligence workstreams including an Independent Technical Review (of which a review of the Resource and Metallurgy has been completed), with a view to securing binding terms sheet by May 2023.

Table 7: Project Annual Physicals and Financial Summary

PROJECT SUMMARY	Unit	Total	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
ROM Mined	Mt	18.3	-	-	2.1	2.1	2.3	2.5	1.9	2.2	1.8	3.3	-	-
Waste Mined	Mt	134.6	-	-	11.7	11.6	12.2	24.3	26.1	25.6	19.6	3.5	-	-
% Measured	%	56.7%	-	-	89.7%	66.7%	63.3%	89.4%	59.5%	45.9%	66.0%	-	-	-
% Indicated	%	26.5%	-	-	10.3%	33.3%	36.7%	9.7%	37.3%	50.7%	2.3%	28.6%	-	-
% Inferred	%	16.8%	-	-	-	-	-	1.0%	3.2%	3.4%	31.7%	71.4%	-	-
Lead Grade	%	3.4%	-	-	4.1%	3.2%	3.5%	2.8%	3.0%	3.6%	4.0%	3.4%	-	-
Silver Grade	g/t	39	-	-	38	28	39	23	38	42	64	42	-	-
Processed Tonnes	**Mt**	**18.3**	**-**	**-**	**1.15**	**2.12**	**2.25**	**2.25**	**2.26**	**2.25**	**2.25**	**2.25**	**1.49**	**-**
Lead Grade	**%**	**3.4%**	**-**	**-**	**5.6%**	**3.6%**	**3.6%**	**2.9%**	**2.9%**	**3.6%**	**3.6%**	**3.8%**	**2.0%**	**-**
Silver Grade	**g/t**	**39**	**-**	**-**	**46**	**34**	**39**	**25**	**35**	**41**	**56**	**44**	**31**	**-**
Lead Recovery	%	91.0%	-	-	90.3%	94.2%	94.1%	92.8%	93.7%	90.6%	83.1%	90.3%	90.3%	-
Silver Recovery	%	81.8%	-	-	87.3%	86.4%	87.1%	87.4%	87.2%	83.0%	78.5%	70.4%	72.9%	-
Concentrate Produced	**kt**	**872**	**-**	**-**	**91**	**109**	**115**	**93**	**92**	**114**	**111**	**108**	**38**	**-**
Lead Grade	%	65.5%	-	-	63.9%	65.6%	65.7%	66.1%	65.5%	63.8%	59.8%	72.3%	70.4%	-
Silver Grade	g/t	665	-	-	501	574	666	520	737	665	890	654	873	-
Payable Lead	kt	543	-	-	55	69	69	57	62	67	62	75	28	-
Payable Silver	Moz	17.2	-	-	1.3	1.9	2.2	1.4	2.1	2.1	3.0	2.1	1.1	-
Lead Revenue	**A$M**	**1,789.7**	**-**	**-**	**177.1**	**223.9**	**227.2**	**187.0**	**206.2**	**221.5**	**205.6**	**248.7**	**92.4**	**-**
Silver Revenue	**A$M**	**691.7**	**-**	**-**	**49.1**	**73.4**	**87.3**	**57.2**	**86.7**	**86.7**	**122.5**	**85.2**	**43.7**	**-**
Total Revenue	**A$M**	**2,481.4**	**-**	**-**	**226.1**	**297.3**	**314.5**	**244.3**	**292.9**	**308.2**	**328.2**	**333.9**	**136.0**	**-**
Lead Treatment	A$M	(159.5)	-	-	(16.1)	(19.9)	(20.2)	(16.5)	(18.4)	(20.2)	(20.2)	(20.2)	(7.7)	-
Silver Refining	A$M	(31.6)	-	-	(2.3)	(3.4)	(4.0)	(2.6)	(3.9)	(3.9)	(5.6)	(3.9)	(2.0)	-
Royalties	A$M	(94.3)	-	-	(8.8)	(11.5)	(12.0)	(9.5)	(11.0)	(11.7)	(11.7)	(13.0)	(5.1)	-
Net Revenue	**A$M**	**2,196.1**	**-**	**-**	**198.9**	**262.5**	**278.3**	**215.6**	**259.6**	**272.3**	**290.6**	**296.8**	**121.3**	**-**
Logistics	A$M	(121.0)	-	-	(12.4)	(15.1)	(15.6)	(12.7)	(13.5)	(15.5)	(15.4)	(15.2)	(5.6)	-
Mining	A$M	(591.1)	-	-	(46.2)	(59.3)	(61.5)	(90.7)	(104.6)	(105.1)	(80.0)	(43.6)	(0.1)	-
Processing	A$M	(391.0)	-	-	(31.5)	(45.6)	(47.1)	(47.0)	(46.8)	(46.6)	(46.7)	(47.1)	(32.6)	-
G&A	A$M	(88.0)	-	-	(8.6)	(10.3)	(10.3)	(10.4)	(10.4)	(10.4)	(10.4)	(10.3)	(6.9)	-
Operating Cash Flow	**A$M**	**1,005.0**	**-**	**-**	**100.1**	**132.1**	**143.9**	**54.9**	**84.2**	**94.8**	**138.2**	**180.6**	**76.1**	**-**
Upfront Capex	A$M	(244.6)	(31.5)	(176.9)	(36.3)	-	-	-	-	-	-	-	-	-
Sustaining Capex	A$M	(55.2)	-	-	(35.7)	(6.8)	(2.0)	(0.1)	-	(1.3)	-	-	(5.0)	(4.3)
Net Cash Flow	**A$M**	**705.2**	**(31.5)**	**(176.9)**	**28.1**	**125.4**	**141.9**	**54.8**	**84.2**	**93.5**	**138.2**	**180.6**	**71.1**	**(4.3)**
Cumulative Cash Flow	**A$M**		**(31.5)**	**(208.4)**	**(180.3)**	**(54.9)**	**87.0**	**141.8**	**226.0**	**319.5**	**457.7**	**638.3**	**709.5**	**705.2**
NPV	**A$M**	**369.7**												
IRR	**A$M**	**35%**												
Average EBITDA	**A$M**	**119.4**												
Operating Margin	**%**	**41%**												

Project Execution Timeline

Table 8: Key Project Milestone Dates

Milestone	Date
DFS Completion	Jan 2023
Project Finance Secured	May 2023
Board / JV Approval to Commence Project	May 2023
First Ore	Aug 2024
First Shipment of Lead-Silver Concentrate	Sep 2024

Concentrate Offtake

The Company has held extensive discussions with potential Offtakers, including global and domestic traders and smelters, in parallel to the DFS process and is now in the final stages of negotiation with selected parties. With the DFS now finalised, the Company will look to conclude those negotiations and award offtake for its share of the Sorby Hills concentrate ahead of a Final Investment Decision.

Opportunities

Boab is of the view that the DFS represents just the starting point for the future of its Lead-Silver operations in the East Kimberley region. The Company has a number of opportunities to increase mine life through a combination of exploration and Resource extension drilling programs which are either already in progress or planned for when mine development occurs across the Project.

Key opportunities include:

- **Sorby Hills Mineral Resource and Production Target Development** – Potential to improve Mineral Resource Estimate and production target as a result of the final Phase V drilling results and the Phase VI drilling that have not yet been incorporated into the Resource model.
- **Norton Deposit Metallurgy** – Potential to improve metal recoveries at Norton with additional testwork across the deposit.
- **Backup Power Review** – Potential to reduce the size of the backup diesel power station to further reduce the cost of power supply. Discussions have commenced with Horizon Power.
- **Improved Mining Costs –** Investigate opportunities that have come to light late in the process of the DFS to improve the mining costs by adopting a bespoke pricing methodology.
- **Further Review of Tendered Pricing** - Contracts formally tendered during the DFS were done so at a time considered to be at the height of the inflation curve in the West Australian mining and construction industry. The Company considers there to be a lot of upsides to be gained on the prices already received through workshops and strategy sessions with key proponents.
- **Road Haulage** – The base case for haulage of concentrate in the DFS is non-concessional loading. Investigations are underway to determine if approval for concessional loading can be obtained, meaning an increased payload in each container.

Study Contributors

The study has received material contributions from consultants in the key discipline areas (Table 9).

Table 9: List of DFS Contributors

Activity	Consultant
Resource assessment	CSA Global
Mining studies	Entech Pty Ltd
Metallurgical Testwork	Strategic Metallurgy, ALS Metallurgy, MicroAnalysis Australia
Process Plant & NPI	Primero
Infrastructure	Tetra Tech Coffey
Tailings storage	Tetra Tech Coffey
Dewatering and Water Supply	GHD Consulting Engineers
Product Logistics	Minerals to Market
Environmental	Animal Plant Mineral
Approvals	Green Values Australia
Financial Analysis	BurnVoir Corporate Finance
Risk Assessment	Strategic Safety & Risk Management, DFS team

The Company would like to warmly thank all contributors to the Sorby Hills DFS.

The Board of Directors have authorised this announcement for release to the market.

FOR FURTHER INFORMATION, PLEASE CONTACT:

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Managing Director & CEO

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Email: info@BoabMetals.com

About Boab Metals Limited

Boab Metals Limited ("**Boab**", **ASX: BML**) is a Western Australian based exploration and development company with interests in Australia and South America. In Australia, the Company is currently focused on developing the Sorby Hills Lead-Silver-Zinc Joint Venture Project in WA. Boab owns a 75% interest in the Joint Venture with the remaining 25% (contributing) interest held by Henan Yuguang Gold & Lead Co. Ltd. Sorby Hills is located 50km from the regional centre of Kununurra in the East Kimberley and has existing sealed roads to transport concentrate from site to the facilities at Wyndham Port, a distance of 150km. Established infrastructure and existing permitting allows for fast-track production.

Compliance Statements

The information in this announcement that relates to Exploration Results is based on information prepared by Dr Simon Dorling. Dr Dorling is a member of the Australasian Institute of Geoscientists (Member Number: 3101). Dr Dorling has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Dorling consents to the inclusion in the release of the matters based on their information in the form and context in which it appears.

Information included in this announcement relating to Mineral Resources has been extracted from the Mineral Resource Estimate dated 17 December 2021, available to view at www.boabmetals.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Mineral Resource Estimate and that all material assumptions and technical parameters underpinning the estimates, 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 have not been materially modified from the Mineral Resource Estimate.

The information in this report that relates to Ore Reserves is based on information compiled by Mr Daniel Donald, who is a full-time employee of Entech Pty Ltd and has sufficient experience 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 "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Donald consents to the inclusion in this report of the matters based on his information in the form and context in which it appears and is a Member of the AusIMM.

APPENDIX 1: ADDITIONAL INFORMATION

Project Tenure

The Project is being developed by Boab Metals Limited ("**Boab**") (75%) and Henan Yuguang Gold, and Lead Co., Ltd (25%) ("**Yuguang**") via their respective subsidiaries Sorby Hills Pty Ltd ("**SHPL**") and Yuguang (Australia) Pty Ltd ("**HYL**"). The manager of the joint venture is Sorby Management Pty Ltd ("**SMPL**"), which is 100% owned by Boab. The relationship is governed by the Sorby Hills Joint Venture Agreement executed in 2010. The Project tenements include five granted Mining Leases: M80/285, M80/196, M80/197, M80/286 and M80/287 (Table 10).

Table 10: Project Tenements

ID	Holder(s)	Area (ha)	Grant Date	Expiry Date
M80/196	Sorby Hills Pty Ltd / Yuguang (Australia) Pty Ltd	999	22/01/1988	21/01/2030
M80/197	Sorby Hills Pty Ltd / Yuguang (Australia) Pty Ltd	995	22/01/1988	21/01/2030
M80/285	Sorby Hills Pty Ltd / Yuguang (Australia) Pty Ltd	558	29/03/1989	28/03/2031
M80/286	Sorby Hills Pty Ltd / Yuguang (Australia) Pty Ltd	789	29/03/1989	28/03/2031
M80/287	Sorby Hills Pty Ltd / Yuguang (Australia) Pty Ltd	816	29/03/1989	28/03/2031

The Project is located within the Native Title Claim area WAD124/04 as determined on the 24/11/2006 Miriuwung Gajerrong #4 (WC04/04). As the mining tenements pre-date the Native Title Act, SMPL does not have a mandatory requirement to negotiate a formal Indigenous Land Use Agreement / Co-existence Agreement with Traditional Owners. However, consistent with Company's social and community commitments and in the interests of developing positive working relationships with Traditional Owners, SMPL seeks to negotiate an agreement with the MG Corporation which outlines employment and contracting opportunities and other benefits that can be enabled through the Sorby Hills project to Miriuwung and Gajerrong peoples.

Permitting & Approvals

The Project mine site itself has been broken into two stages, based on the existing approved footprint under Ministerial Statement 964, and future amendments required for inclusion of the Beta deposit. With respect to the current footprint, the status of environmental approvals and licensing applications are outlined in Table 11. Concurrent with the DFS, SMPL commissioned an independent Environmental and Social Review of the Sorby Hills Project with respect to ESG standards, including:

- International Finance Corporation Performance Standards and Environmental Health and Safety Guidelines for Mining;
- NAIF Investment Criteria; and
- Equator Principles 4 (2020).

The work, including a site visit of the Project and local communities delivered and Gap Analysis Report and Environmental Social Action Plan that highlighted to already strong ESG credentials of the Project and outlined recommended actions to ensure compliance with key ESG criteria.

Table 11: Environmental Approvals and Licensing Applications

Relevant Legislation	Approval Required	Status	Scheduled Date
Environmental Protection Act 1986 – Part IV	Ministerial Approval	Approved	2^{nd} April 2014
	S45C Application (Camp & Access Road)	Approved	20^{th} June 2022
	S45C Application (Extension to B Pit and addition of A pit)	Submitted	March 2023
Environmental Protection Act 1986 – Part V	Works Approval – Category 12 [Early Works]	Approved – W6366/2022/1	10^{th} March 2022
	Works Approval – Category 5, Category 6	To be Submitted	May 2023
Mining Act 1986	Mining Proposal & Mine Closure Plan [Early Works]	Approved – RegID 97509	21^{st} February 2022
	Mining Proposal & Mine Closure Plan [Camp & Access Road]	Approved – RegID 110513	25^{th} July 2022
	Revision to Mining Proposal & Mine Closure Plan [Mining Operations]	To be Submitted	May 2023
Biodiversity Conservation Act 2016	Section 40 Authorisation to Take	Approved – TFL 084-2122B	20^{th} December 2022
Work Health and Safety (Mines) Regulations 2022	Mining Operational Notification	Accepted	1^{st} September 2022
Rights in Water and Irrigation Act 1914	5C Licence to Abstract [Early Works]	Approved – GWL202494	8^{th} August 2022
	5C Licence to Abstract [Mining Operations]	Submitted	February 2023
Dangerous Goods Safety Act 2004	Dangerous Goods Licence	To Be Submitted	March 2023

Geology

The Sorby Hills mineralisation is classified as Mississippi Valley Type (MVT), implying replacement of carbonate and mixed carbonate siliciclasitc rocks by Pb-Ag-Zn-Fe sulphides. Recent geological assessment has refined this to a sediment-replacement system, with mineralisation focused within an interval below the base of the Knox Sediments and the Sorby Dolomite (Transition Facies).

The Late Devonian/Early Carboniferous host rock succession was transgressively deposited over the flanks of a Precambrian basement-high (Pincombe Inlier) that extended into the Burt Range Sub-basin which is part of the southern Bonaparte Basin.

The mineralisation is largely stratabound and hosted mainly in the Transition Facies, an interval of about 20 to 25m consisting of 1 to 2m thick cyclic bedded, beds of massive dolomite, silty dolomite and clay matrix breccias in the immediate footwall of the Knox Sediments and the uppermost interval of the Sorby Dolomite. A massive micritic fossiliferous dolomite interval is located in the hanging wall. Strata generally dip shallowly, but variably to the east, southeast and northeast.

The mineralisation consists of seven discrete carbonate-hosted Pb-Ag-Zn deposits: A, B, Omega, Norton, Beta and Alpha (Pb and Zn) deposits. The deposits form a curvi-linear north-trending belt extending over 7km, sub-parallel to the eastern margin of the Precambrian Pincombe Inlier with sub-economic mineralisation linking all deposits (Figure 4).

Mineral Resource Estimate

The Mineral Resource Estimate underpinning the DFS was undertaken by CSA Global Pty Ltd in accordance with the JORC Code (2012) and announced to the ASX on 17 December 2021.

The Mineral Resource Estimate comprises 47.3Mt at 3.1% Pb, 0.4% Zn and 35g/t Ag using a cut-off of 1% Pb. A comprehensive breakdown of the Mineral Resource by Resource classification and deposit is shown in Table 3. The updated estimate represents an increase in Measured and Indicated Tonnes of 2.8Mt (14%), 65kt contained Lead (9%) and 3.0Moz contained Silver (11%) versus the Mineral Resource Estimate that underpinned the Sorby Hill Pre-Feasibility Study and represents an increase of 5% Total Resources on the same basis.

The Mineral Resource estimate is supported by RC and DD drilling samples, with holes drilled over a time span between the 1970s and 2021. At the time of the December 2021 estimate, a total of 676 drill holes had intersected the mineralisation domains, with 212 holes drilled by Boab since 2018. A total of 244 holes are historical (pre-dating 2007) but were retained based upon acceptable quality control results. Since the release of the December 2021 estimate, a further 43 RC drill holes have been completed across the Project. High-grade results from Beta (see below) and encouraging mineralisation continuity observed at Norton represent significant opportunities to further enhance the Sorby Hills Mineral Resource and Mining Production Target in the near term.

- SHRC_157 (Beta): 7m @ 16.23% Pb & 82g/t Ag from 72m
- SHRC_136 (Beta): 20m @ 5.58% Pb & 52g/t Ag from 65m; and
- SHRC_143 (Norton N): 13m @ 2.82% Pb & 35g/t Ag from 95m

The location of drilling relative to the Mineral Resources is shown in Figure 5.

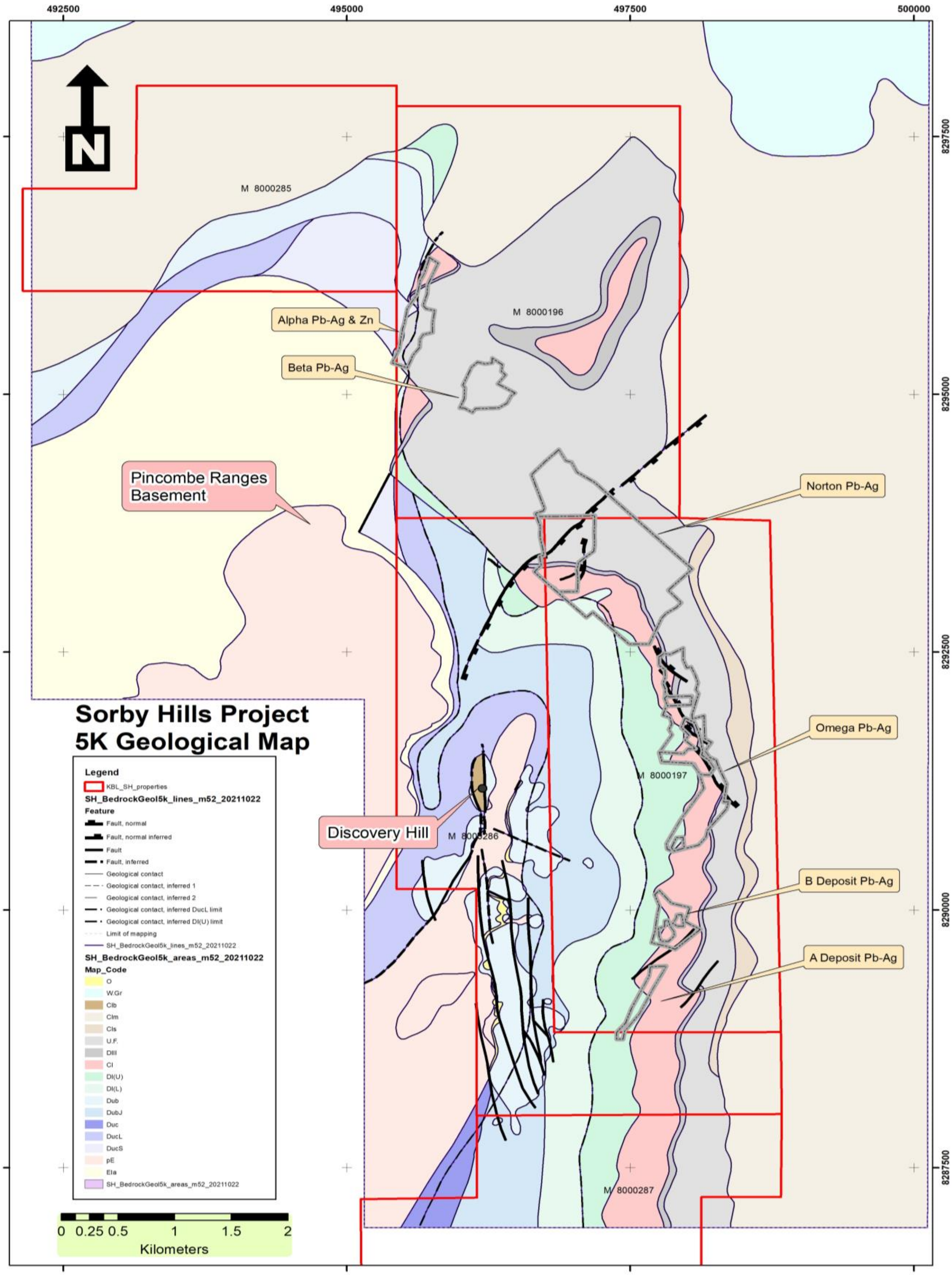

Figure 4: Geological map of the Sorby Hills project area and surface projection of the classified Mineral Resource

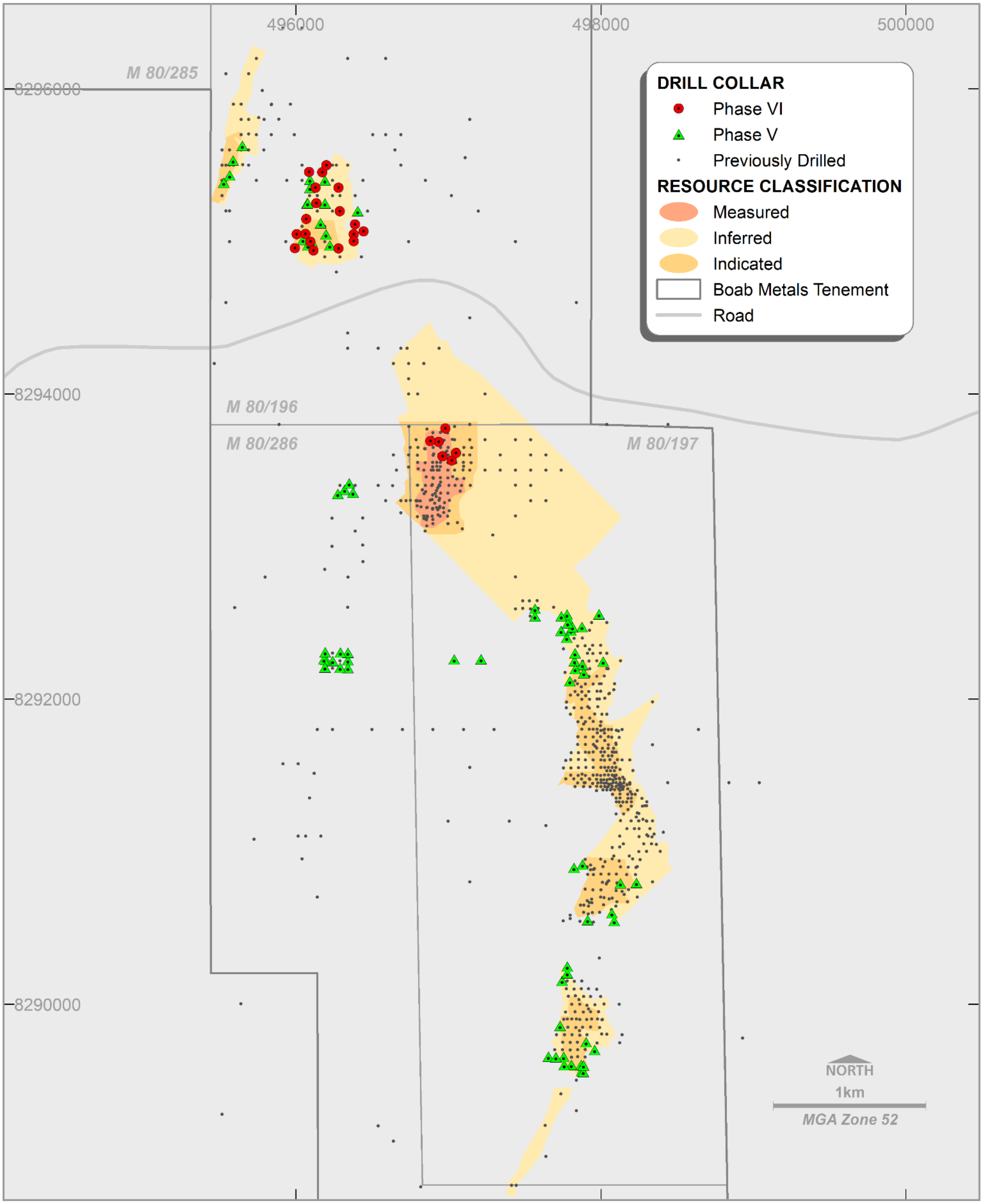

Figure 5: Location of drill holes underpinning the DFS Mineral Resource Estimate together with more recently drilled holes to be incorporated into a future Resource update

Drillholes were sampled at 1m intervals and the drill samples were accordingly composited to 1m lengths for most deposits, with the exception of the A and Beta deposits, where samples were composited to 2m lengths. Composited sample data were statistically reviewed to determine appropriate top-cuts, with top-cuts applied for Pb, Zn and Ag where appropriate. Sample populations for Pb, Zn and Ag were split by mineralisation domains as supported by statistical analysis of assay data. The top cut and composited drill samples were used for variogram modelling. Moderate relative nugget effects were modelled for these in the primary zone.

A block model with block sizes of 10m (X) x 10m (Y) x 5m (Z) was constructed. The block sizes are approximately half the most dense drill spacing, which generally supports a Measured or Indicated classification. Blocks and drill sample data were flagged according to the geological and mineralisation envelopes. Major variogram directions were modelled in the plane of the vein towards the north-east. Grades for Pb, Zn, Ag, S and Fe were interpolated for all the grade variables by ordinary kriging. Blocks were estimated using a search ellipse of variable dimensions, ranging from 100m (major) x 30m (semi-major) x 5m (minor) dimensions for Beta, to 60m (major) x 30m (semi-major) x 5m (minor) for Omega North, with a minimum of 8 and maximum of 24 samples from a minimum of four drillholes. Search radii were increased, and the minimum number of samples reduced in subsequent sample searches if cells were not interpolated in the first two passes. Cell discretization of 5 x 5 x 1 (X, Y, Z) was employed.

Density testwork was carried out on mineralised and un-mineralised DD core samples obtained between 2018 and 2021. Core segments were measured using either the water immersion (Archimedes) technique for both wax coated and non-coated material and using the calliper method. There was a very strong correlation between the two methods. A total of 978 measurements were taken using the water immersion technique and these results were used to derive a base density value, and applied to an algorithm based upon interpolated Pb, Zn and Fe grades.

The following formula was derived and used to calculate the bulk density for each block in the block model, where Pb, Zn and Fe are the estimated block grades, and BD is the base density value assigned to a combination of each of the lithostratigraphic and weathering domains.

Density = 100/((100-Pb%-Zn%-Fe%)/ BD) + Pb/11.35 + Zn/7.14 + Fe/7.87)

The host rock sequences exhibit a natural porosity related to mineralisation, which is not uniform in its distribution and sometimes not always recognisable during visual inspection of the DD core. The spatial distribution of the density data throughout the deposit do not fully capture the distribution of the porosity and therefore a cautionary tonnage adjustment factor was applied during the final grade-tonnage reporting stage. The final tonnage estimates were reduced by 1% globally to account for the visually estimated porosity levels.

The Mineral Resource was classified based upon drillhole spacing, quality of sampling and sample analyses, quantity of density measurements, the relative confidence in the geological interpretation, and the ‘slope of regression’ (SOR) outputs from the kriging grade interpolation. A drill spacing equal to or less than 25m (north) by 25m (east) was used to initially define the Measured volumes and a drill spacing equal to or less than 50m (north) by 50m (east) was used to initially define the Indicated volumes. The block model was viewed in plan section, with blocks coloured by SOR (typically > 0.7) to assist this process. Inferred volumes are based upon a drill spacing of 50 to 100m (northing) by 50 to 100m (easting).

Mining

The designed open pits contain a Production Target of 18.3Mt of ore, at a diluted grade of 3.4% Pb and 38.8g/t of Ag equating to 628kt of Pb and 22.8Moz of Ag metal. The pits also contain 136Mt of waste material for an average strip ratio of 7.5:1.

The contained design production target by pit is summarised in Table 12.

Table 12: Pit Design Production Target

Pit	Total (Mt)	Waste (Mt)	Ore (Mt)	Pb (%)	Ag (g/t)	Strip Ratio
Pit A	4.1	3.7	0.5	3.7	16.4	8.1
Pit B	14.8	12.6	2.3	3.2	17.4	5.5
Omega South	21.1	18.3	2.8	2.9	29.5	6.5
Omega Main	57.7	50.3	7.4	3.6	38.7	6.8
Norton	21.4	19.5	1.9	4.0	78.5	10.0
Beta	35.6	32.2	3.4	3.3	41.5	9.5
Total	**154.8**	**136.5**	**18.3**	**3.4**	**38.8**	**7.5**

The mining sequence is primarily based on the requirement to maximise cashflow early in the schedule by delivering high quality ore to the Concentrator. After a year of operation, the Plant will be expanded in capacity and ore requirements are scheduled to meet the increased throughput. Additional physical constraints on mining are also influencing the sequence such as minimum working area, vertical rate of advance and assumed lost days due to wet season rainfall.

The sequence of the pits has been chosen primarily to meet the processing requirements in quantity and quality, and secondarily to provide the construction material quantities and types for building the dams, TSF and other infrastructure needs, including tailings deposition into B pit and Omega South. Underpinning the flexibility of the schedule is the bulk movement of the overlying waste in the pits which exposes ore rapidly providing the selection flexibility to meet blending requirements at the plant. Figure 6 shows the priority of each of the pit stages indicating which pits are scheduled at which stage throughout the schedule.

The Mining Schedule has been established using a 110t excavator and a 200t excavator used primarily for the bulk waste mining. The 200t excavator and fleet will be used at the top of the pits and develop the ore pit down to expose the top of the ore. The mining rate is slowed once the ore is encountered. This process is then replicated in each of the pits and stages.

Productivity of the excavators was modelled based on information provided from contractors on similar scale projects using the specific gravity of material from the deposit. A minimum mining width of 20m was used as the basis of design and scheduling.

The mining rate is initially reduced in the first months as the early access to high-grade ore and the amount of low grade is controlled to satisfy Process Plant requirements and inhibit the size of the Low-Grade stockpile which is constrained by the working area. In month 41 after the beginning of mining, the production rate is doubled and then slowed again late in the schedule when the number of working areas has decreased, and vertical rates of advance impose a slower productivity. It is expected that one of the excavators will be demobilised late in the schedule. The sequencing of pits/stages within the mining schedule is shown in Figure 7.

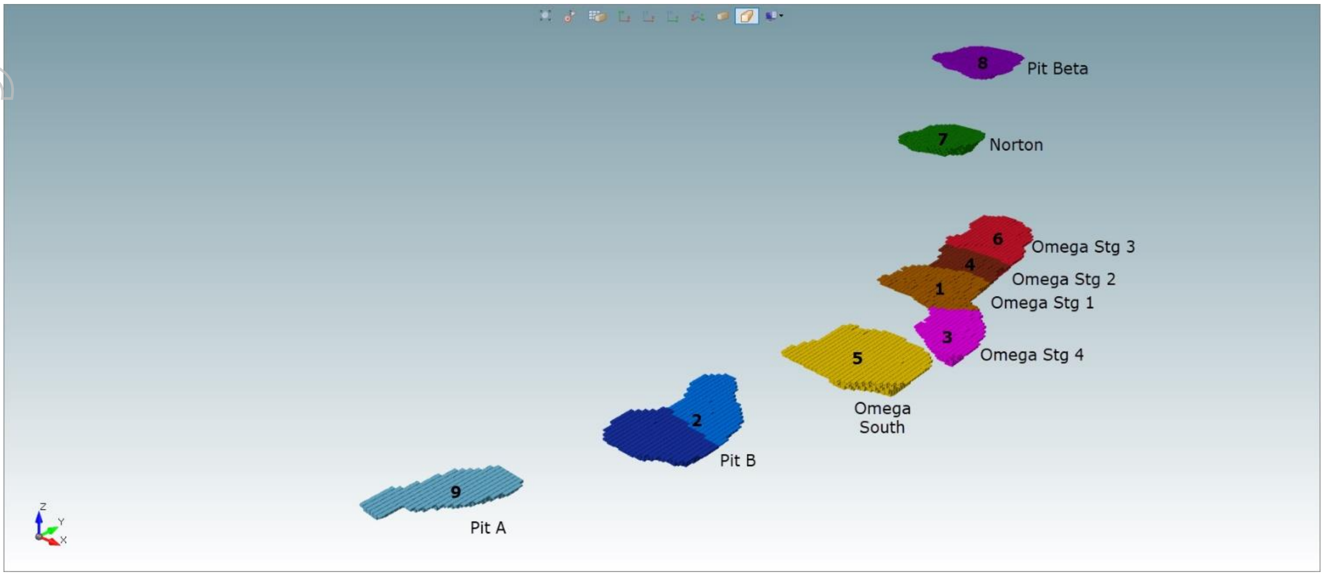

Figure 6: Pit / Stage Priorities.

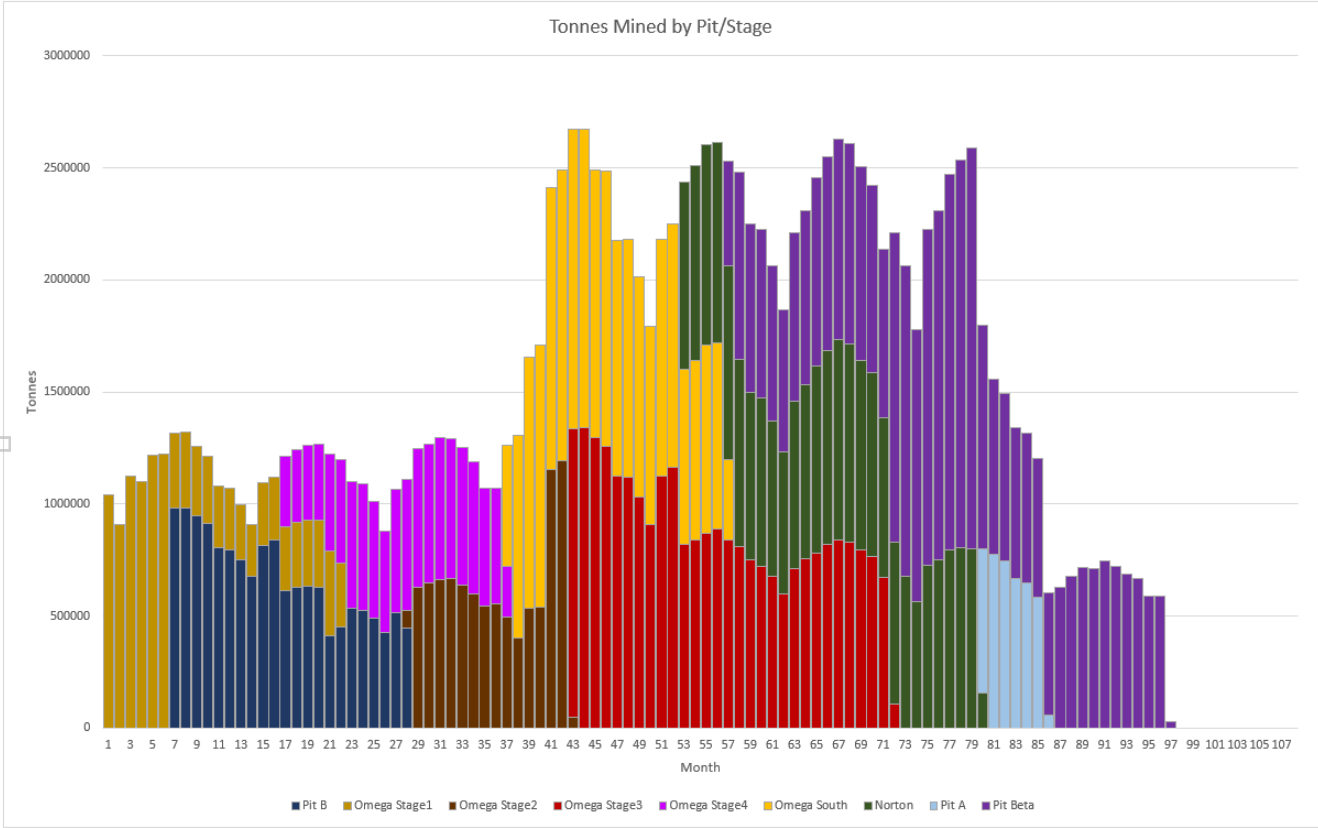

Figure 7: Mining Schedule by Pit / Stage.

Metallurgy

The primary objective of the DFS Metallurgical Testwork Program was to deliver robust results to underpin the Sorby Hills DFS Process Plant design criteria.

The program comprised a total of 35 HQ diamond drill holes included in the Phase IV and V drilling. From these holes, approximately 1,420kg from 399m of half core was collected, combined and composited into Variability Samples, Schedule Composites and Master Composites. Samples and Composites were utilised for a range of testwork including Flotation, Comminution, Mineralogy, Heavy Liquid Separation, Tailings Thickening, Concentrate Filtration and Concentrate Analysis.

The DFS Metallurgical Testwork Program builds upon a significant body of previous metallurgical testwork undertaken by SMPL since acquiring Sorby Hills in 2018 and others dating back to 1979.

Master Oxide, Fresh and Blended composites were produced for initial flotation optimisation. A total of 34 samples exhibiting a range of head grades, mineralogical compositions and source locations were prepared as Variability Samples. Scheduled-based composites were made to represent the PFS mine schedule for years 1-2, 3-4 and 5+, for each of the Oxidised, Fresh and Fresh-Oxidised Blend ore types. Lower-grade sample material was selected for HLS testing (Table 13).

Table 13: DFS Metallurgical Testwork Program - Sample Summary

Test Type	Variability Tests	Composites Tests
Flotation	34	3 x Schedule and 3 Master for each of Fresh, Oxidised and Blend
Comminution	18	3 x Schedule
HLS	13	2

Metal recoveries adopted for economic modelling for the Sorby Hills Pre-Feasibility Study were Lead: 94.9% (Fresh Ore) and 84% (Oxidised Ore) and Silver: 78.2% (Fresh Ore) and 94.4% (Oxidised Ore).

Table 14 presents a summary of the final Sorby Hill DFS Flotation performance estimates. Recovery estimates are based on the Schedule Composite test results, and for the specific deposit estimates, the average Variability Sample test performance for that deposit. These results incorporate modifications based on Locked-Cycle testwork to account for closed circuit performance estimation and, in the case of separate Oxidised and Fresh Ore-only recoveries, adjustments to account for operational inefficiencies associated with campaign-style processing.

Whilst the extensive variability testwork has identified the recovery achieved at Norton was less than that at other deposits, superior results in selected Norton Variability Samples suggests the poorer results are spatially constrained and that the higher performing ore within Norton can be prioritised.

A comprehensive assay was undertaken on Lead-Silver Concentrate produced from each locked cycle test. The results of these assays have been provided to potential offtakers.

Table 14: Sorby Hills DFS Final Flotation Performance Estimates

Ore Type	Feed % Pb	Feed g/t Ag	Conc Grade		Conc Recovery	
			%Pb	g/t Ag	%Pb	% Ag
Oxide Batch Treatment						
Schedule Y1-2	5.14	42	62.3	520	89.9	92.4
Schedule Y3-4	4.03	44	60.3	686	85.5	88.3
Schedule Y5+	5.15	86	67.3	1262	79.9	89.3
Norton	8.93	168	66.0	1305	85.6	89.9
Beta	3.20	35	50.0	509	60.1	56.5
Fresh Batch Treatment						
Schedule Y1-2	4.53	61	66.9	816	95.1	86.3
Schedule Y3-4 Ex Norton	3.27	19	64.3	330	95.1	84.8
Schedule Y5+	4.04	32	68.5	479	95.1	83.9
B Pit	2.89	16	65.7	326	95.1	83.9
Omega, Omega South	4.31	43	66.2	599	95.2	87.0
Norton	4.24	72	56.9	966	78.1	77.9
Beta	2.10	22	72.3	577	90.3	70.3

The DFS Metallurgical Testwork Program further explored Dense Media Separation (DMS). The DFS results for the DMS demonstrated a reduced recovery and highlighted additional process design and operation risk. Therefore, the DMS option is not recommended and was not considered further for DFS.

Flowsheet and Plant Design

The Sorby Hills process plant is designed to treat 2.25Mtpa of ore. In the initial year of operation while head grade is at its highest the process plant throughput rate is at a nominal 1.5Mtpa. This processing rate profile maintains concentrate production as the grade reduces after the first year. Comminution and flotation circuit equipment sizing has been based on providing the required “turn-down” ability to operate at the lower initial throughput capacity. A high-level process diagram is presented in Figure 8. The design of the processing facilities has been undertaken in accordance with the following philosophy:

- A simple and robust flowsheet using well established methods;
- Well proven equipment;
- Ease of maintainability;
- Best practice OHS&E protection;
- Ten-year life operating continuously 24 hours per day, 365 days per year; and
- An overall plant availability of 91.3% or 8000h/yr.

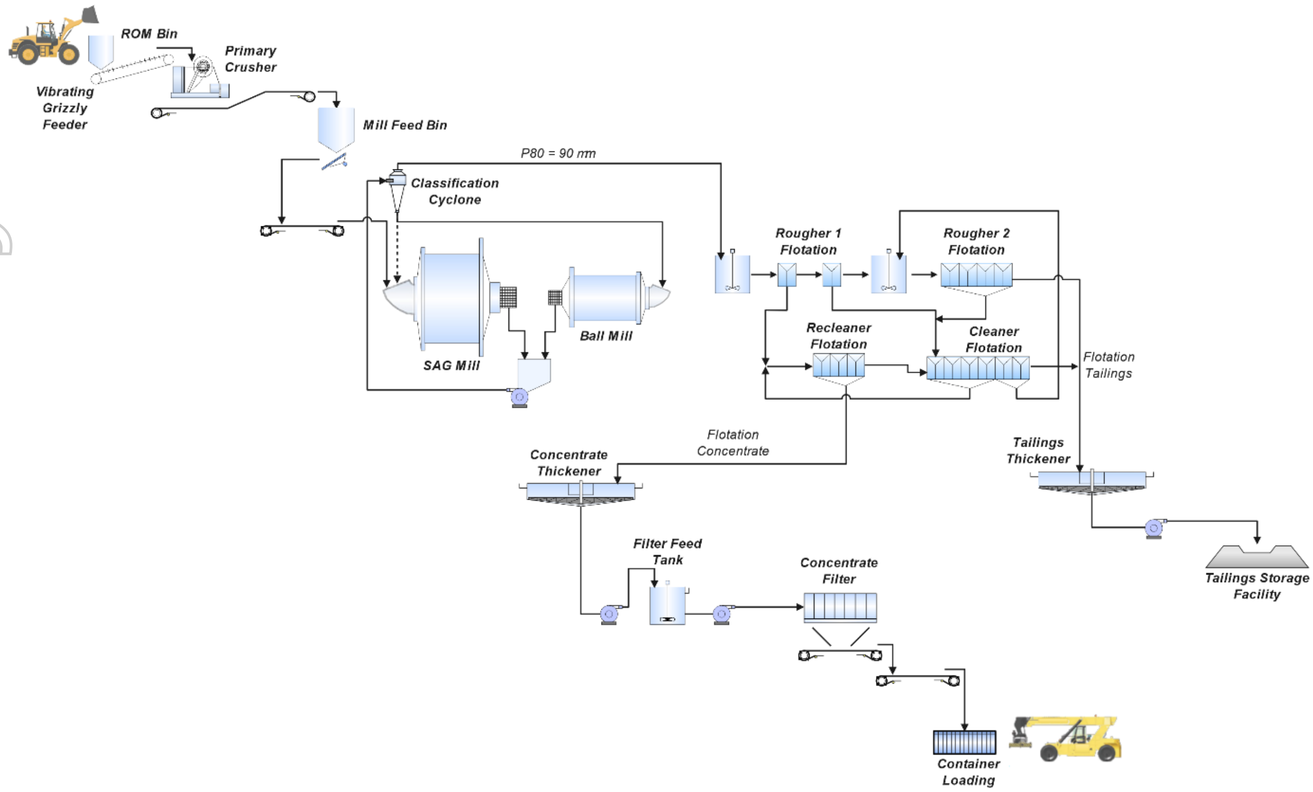

Figure 8: Process Flow Diagram.

The crushing plant consists of a single stage jaw crusher with a fully enclosed crushed ore surge bin ahead of the grinding circuit. The grinding circuit consists of a SAG-ball circuit operating in closed circuit with hydrocyclone classification. SAG mill discharge trommel oversize is recirculated to the SAG mill feed via conveyor without pebble crushing. Cyclone overflow passes through a trash screen before entering the flotation circuit.

The flotation circuit consists of two stages of roughing, 1st cleaner, cleaner-scavenger and recleaner banks. Fast floating material from rougher 1 is directed to the recleaner feed. Rougher 2 concentrate feeds cleaner 1, while cleaner 1 concentrate also feeds the recleaner. Cleaner scavenger concentrate recycles to rougher 2 feed, while the cleaner scavenger tailings report to final tailings. Recleaner tails returns to 1st cleaner feed. Two conditioning tanks are provided for initial rougher reagent addition. An additional conditioner is provided for rougher 2 for additional sulphurdisation. A 1st cleaner conditioning tank is also provided. The first rougher conditioning tank also has flow rate stabilisation functionality.

Concentrate is thickened and stored in a filter feed tank before being dewatered in a vertical plate and frame filter press with direct transfer of concentrate into half height shipping containers for transport. Tailings are thickened and sent to the TSF initially and in pit disposal in later years.

Plant services include reagents, water, air, office, workshop, stores and laboratory facilities. The plant is automated with a Programmable Logic Controller (PLC) / Supervisory Control and Data Acquisition (SCADA) type configuration. An on-stream-analysis system is provided for major metals (Pb, Ag, Fe, Zn) in six flotation streams and feed galena / cerussite mineralogy on the feed stream.

Infrastructure

The newly constructed Moonamang Road is located 630m immediately north of the Project. This provides all weather access to the Project via a sealed road to Kununurra and to the Wyndham Port. A new, fully engineered access road will connect the concentrate dispatch area to the main road. The process plant pad will be constructed at the same time.

Non-process infrastructure on the site includes the following:

- Concentrate storage shed;
- Concentrate container storage area;
- Vehicle wash-down bay;
- Tailings Storage Facility;
- Oil and fuel storage facility;
- Laydown areas;
- Administration buildings;
- Mining contractor infrastructure;
- Process plant crib, washroom and ablutions;
- Medical facility;
- Change-house and ablutions;
- Warehouses;
- Workshop;
- Laboratory;
- Reagent storage building;
- Power generation facility;
- HV Power distribution;
- Water treatment plant; and
- Sewage treatment plant.

Off-site infrastructure for the project includes the following:

- Accommodation and messing facilities in Kununurra (Operations phase);
- Road upgrades to intersections on the proposed concentrate haulage route;
- Concentrate container storage area at Wyndham Port; and
- Container washdown station at Wyndham Port.

Water Management

The Sorby Hills Project will run as a water surplus operation, producing more water than it can use due to shallow groundwater levels and monsoonal climates with high rainfall. The Project will manage surplus water through a combination of:

- Storage in the Mine Water Settling Pond (MWSP);
- Storage in inactive open pits;
- Treatment in the Water Treatment Plant (WTP);
- Storage in the Water Storage Facility (WSF);
- Supply to the Process Plant Raw Water Tank / Fire Water Tank;
- Consumption for dust suppression on haul roads and in mining areas;
- Consumption for dust suppression in the Process Plant area;
- Consumption for dust suppression in all other general site areas;
- Consumption for potable water;
- Release to the environment up to 1 GL/year under the existing Ministerial Statement 964;
- Seasonal wet season release into the environment, and
- Availability for use by the neighbouring Agricultural entities.

New hydrological and hydrogeology fieldwork and modelling was undertaken by GHD Consulting Engineers for the DFS to help inform the development of an updated water management strategy.

A two-dimensional fixed-grid model was developed by GHD using TUFLOW for the simulation of mine flood conditions. Modelling was undertaken using a 'rainfall-on-grid' approach, in which rainfall is directly applied on a grid, describing the Project Area's topography. The model was simulated for both the present-day baseline and proposed mine development scenario during the 1% Annual exceedance probability (AEP) and 5% AEP storm events. The following key model observations were noted:

- Flow across the development envelope is predominantly slow-moving shallow sheet flow;
- Depths average around 0.3m in the 5% AEP storm event and 0.4m in the 1% AEP storm event respectively; and
- Flow velocities are generally less than 0.2m/s, which is below the typical erosive velocities of natural stream beds.

The 1% AEP Storm Event Proposed Development Scenario was used by the DFS Study with Tetra Tech Coffey to design the final top RL of the site access Roads, Haul Road and infrastructure pads in developing an island like infrastructure area to avoid significant inundation during major storms during the wet season. A number of culverts and diversion drains were recommended by the outcomes of this and were incorporated into the site layout designs.

From GHD's hydrology modelling, the statutory required pit abandonment bunds (and in this scenario flood protection bunds) were sized and optimised at 2m high at the planned set-back from the pit crest. However, after reviewing subsequent modelling from Tetra Tech Coffey's dam break analysis of the IWL/TSF, the DFS study team deemed it necessary to increase the height of the pit flood protection component of the bunds to 3m high, for pits in the affected areas to ensure protection in the rare event of a TSF dam failure.

There have been numerous hydrogeological studies at Sorby Hills from 1975 through to 2020. GHD have built on this previous work for the DFS by undertaking a field program that installed test production bores and monitoring bores in all the target orebodies and undertook a successful test pumping program. The analysis of the test pumping data provided both quantitative and qualitative learnings regarding the hydrogeology of Sorby Hills which was used to develop revised conceptual and numerical models in order to derive predictions for total dewatering volumes over the life of mine as well as month by month and pit by pit.

The proposed pit dewatering strategy will comprise in-pit sump pumping by the mining contractor. Sumps will be located to minimise the impact dewatering has on mining activities. The rising main from each in-pit sump will deliver the pit dewatering and rainfall within the pit crest bund to a ring main around each pit and then pumped and stored in the MWSP (Figure 10) where it will settle prior to being pumped to the WTP. Water flow from the MWSP to the WTP range from 1 million to 5 million litres per annum (Figure 9).

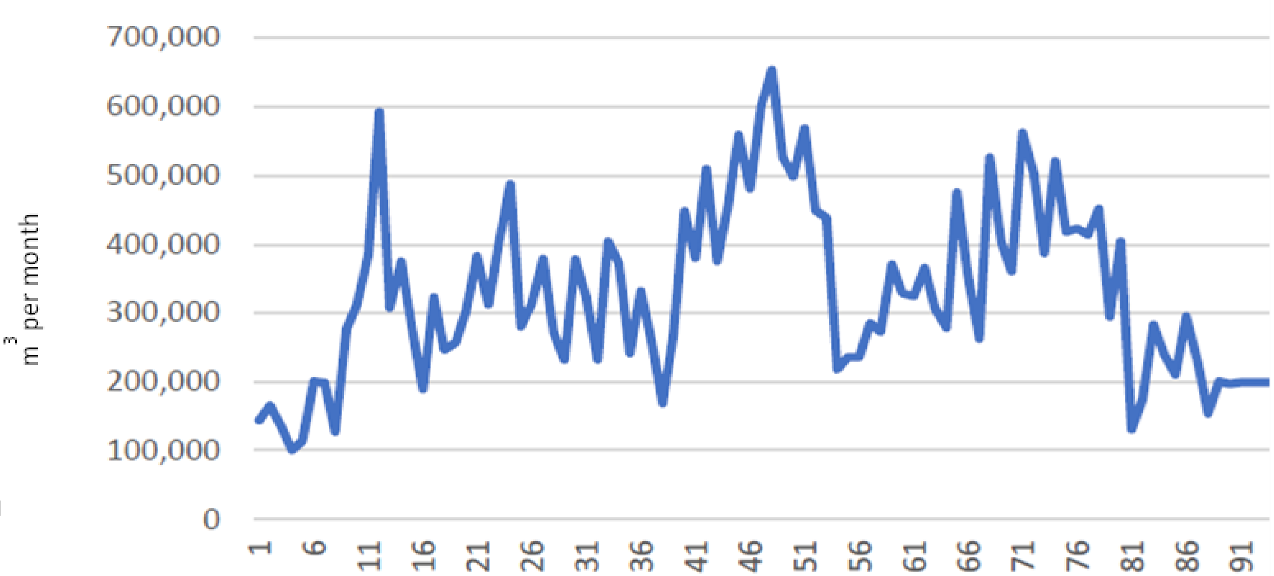

Figure 9: Monthly water supply to WTP

The WTP will produce:

- filtered water;
- filtered and RO water; and
- filtered, RO and desalinated water.

The three products can be used to blend to produce the quality of water required for each placement.

The WSF is designed as an above-ground dam, comprising a total footprint area of 46.8Ha. The WSF will comprise 2 Cells, namely WSF 1 (or Northern Cell) and WSF 2 (or Southern Cell). Modelling shows that the southern cell will not be required however the site is identified as a contingency should additional dewatering be required.

SMPL commissioned Tetra Tech Coffey for the DFS design, scope of works and schedule of quantities for the MWSP and the WSF. The WTP will be a modular design purchased from Aquasol.

Site Layout

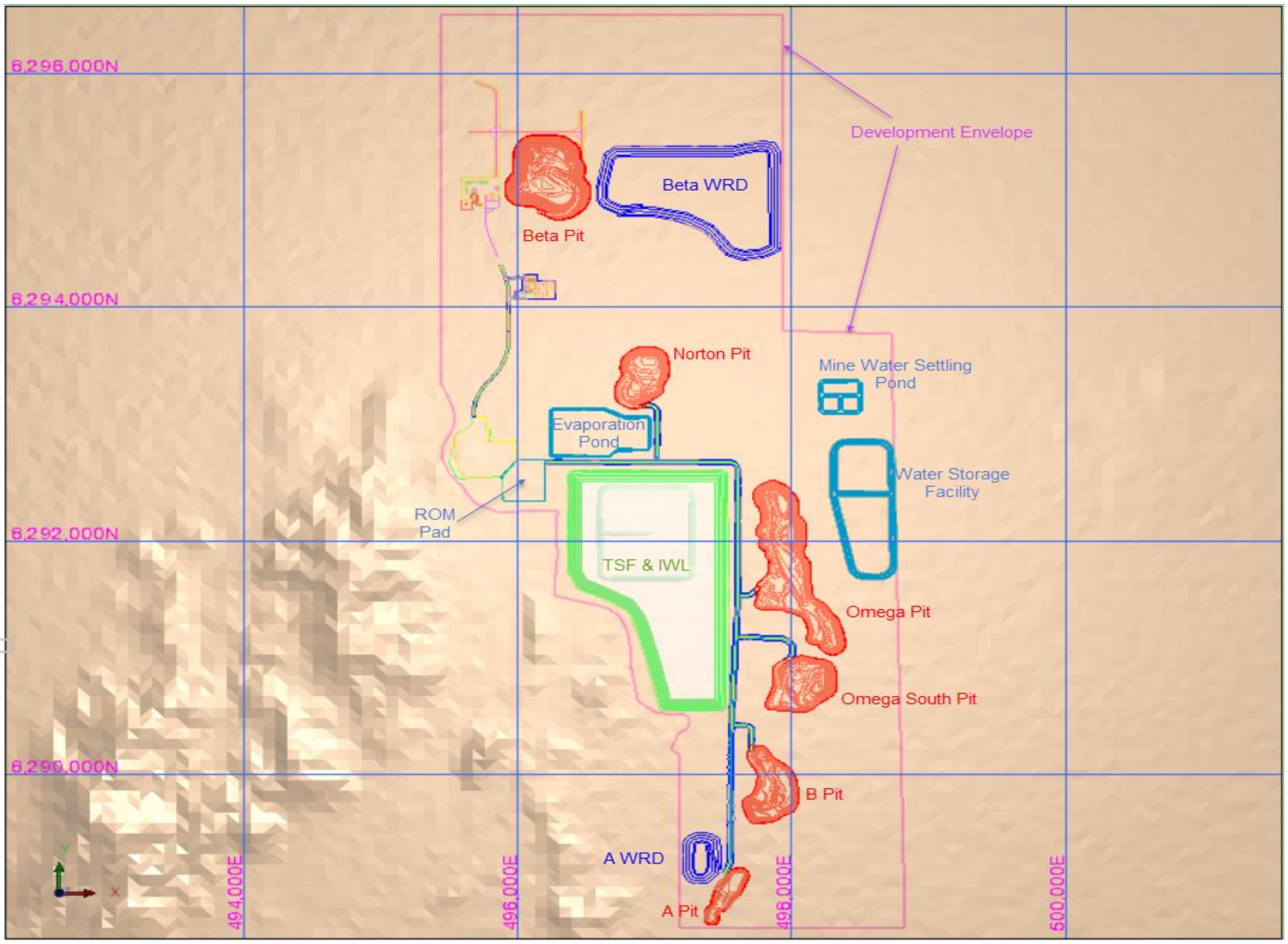

Figure 10: Site Layout showing location of the MWSP, WSF and TSF/IWL relative to the Open Pits, Waste dumps and ROM pad

Tailings

Tetra Tech Coffey have completed an options study and a DFS design for the tailings management at Sorby Hills. This will comprise of 3 tailings storage facilities (TSFs), comprising of an Integrated Waste Landform (IWL), and 2 in-pit TSFs. Pit B and Omega South pits will be used as tailings storage once these pits are mined out in the future.

The total tailings production will be approximately 17.43Mt, over a life of mine of 10 years, at a solids concentration of 60% solids initially, later dropping down to 52% solids. Tailings throughput will be 4.17Mt over first 3 years to the above-ground IWL/TSF, and 13.26Mt over the remaining 7 years to the In-Pit TSFs (process plant ore throughput of 1.5Mtpa initially, ramping up to 2.25 Mtpa).

The adopted tailings dry density was 1.4 t/m^3 for the above-ground IWL/TSF, based on tailings testwork results conducted by Tetra Tech Coffey (2020). A dry density of 1.2t/m^3 for the In-Pit TSF design was assumed and justified based on the same tailings testwork.

The IWL/TSF will be constructed in 2 stages over 3 years. The IWL will reach a maximum height of 31.5m, with the inner TSF reaching a max of 9.5m high (at Stage 2). The IWL will have an outer slope of 18° and will be constructed in downstream raises.

Pit B will be the next TSF to store tailings, once its mined out. It comprises a storage capacity of 6.14Mt of tailings, with an estimated depth of 64m. Finally, Omega South will be used for tailings storage, with a storage capacity of 8.95Mt, and estimated depth of 114m. The tailings management has been developed in stages to suit tailings and non-mineralised waste production over the mine life.

The Evaporation Pond (EVP) will be located adjacent to the plant site area to provide water storage decanted from the TSFs. Process water will be preferentially derived from the EVP via dedicated pumps. The maximum embankment height will be 4m and will be constructed to its full height simultaneously as the IWL/TSF Stage 1 construction and before ore processing commences.

Geotechnical Investigations

Three previous geotechnical investigations have undertaken at Sorby Hills, by Soil Water Consultants (2011, 2012) and Tetra Tech Coffey (2021), to characterise surficial soil materials for the TSFs detailed design and site infrastructure design. A further 2 geotechnical investigations were undertaken by Entech (2019, 2020) to complete a mining geotechnical assessment for pit slope stability and pit design.

The Soil Water Consultants investigation (2011) comprised 12 test pits (2m depth), with lab tests conducted on soil samples, and the 2012 investigation comprised testing soil samples from previously drilled RC boreholes to ascertain geotechnical suitability of materials for construction.

The Tetra Tech Coffey investigation (2021) comprised 19 boreholes (15m to 18m depth), and 47 test pits (2.5m depth or refusal), with lab tests conducted on soil samples from both boreholes and test pits. Falling head permeability tests were conducted in the boreholes to estimate hydraulic conductivity (permeability). The investigation revealed the IWL/TSF area consisted predominantly clay material. The Process Plant area, closer to the hill, recorded more rocky and sandy gravel, whereas the remainder of the area consisted of clay soil. This gravel will be used for the Early Works construction of access roads and Process Plant pad on site, with designs conducted by Tetra Tech Coffey.

The Entech investigations (2019, 2020) comprised 29 diamond drill holes, in the vicinity of Norton, Omega and B pits. Soil samples were collected and tested to provide detailed geotechnical data, including rock mass and structure characterisation. Slope design parameters for each deposit were recommended, and generally comprised of 10m bench heights for transported and oxide material, and 20m bench heights for transitional and fresh material. Spill berm widths of 6m were recommended for transported and oxide material, and 9m for transitional and fresh material. Maximum inter-ramp angles of 58° were recommended.

Accommodation

A construction camp complete with single rooms, wet mess, dry mess and recreational facilities has been included in the project capital allowances. The accommodation buildings have already been purchased and are on site ready for refurbishment and installation. An operational village will be established offsite in conjunction with the Shire of East Kimberley and Wyndham for the housing of SMPL personnel and contractors.

Power

Horizon Power will supply hydro-power to Sorby Hills via a dedicated 33kV feeder and overhead powerline from the Kununurra substation to the Project (Figure 11). The power is sourced from the Ord hydro-power station. It is proposed that Horizon Power will also build a 12MW backup diesel power station at site to mitigate for periods when the Ord hydro-power station is unavailable.

A Heads of Agreement has been executed with Horizon Power with respect to a Power Purchase Agreement covering the infrastructure outlined above and the supply of electricity to the Project. It is anticipated that the Ord hydro-power station will supply greater than 90% of the annual electricity consumed by the Project.

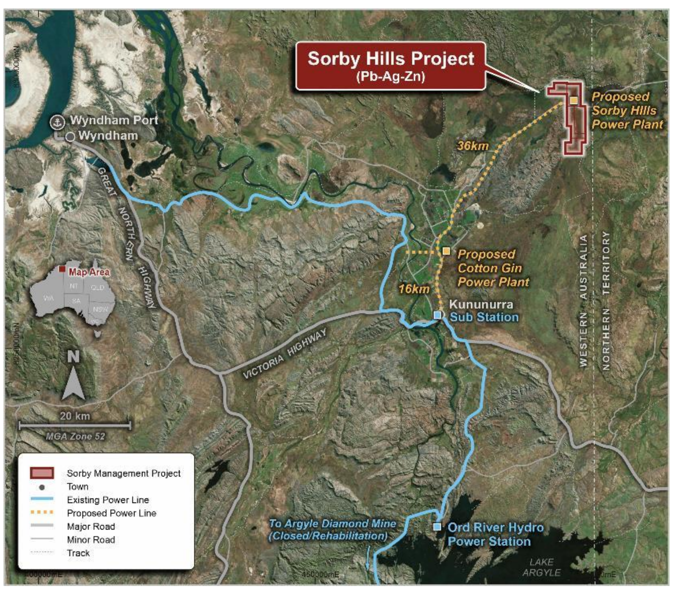

Figure 11: Location of Sorby Hills relative to Kununurra and the Ord River Hydroelectric Plant (Left). Members of the Boab and Horizon Power teams at the Ord-Hydro Power station (Right)

Project Implementation

SMPL has developed an execution strategy for the Project through works undertaken during the course of the DFS, which will include the following key packages:

- Early civil works and bulk earthworks;
- Process plant and non-process infrastructure;
- Tailings Storage Facility and Evaporation Pond;
- Water storage facility and mine water settling pond;
- Mine ROM, haul roads and mine facilities;
- Washdown facilities;
- Testing laboratory;
- Dewatering pipework;
- Communications infrastructure; and
- 180-room construction village.

Major construction is scheduled throughout the course of 2023 and 2024 to achieve a plant commissioning milestone of August 2024 and the first concentrate Shipment in September 2024. The key milestones in the project schedule are summarised in Table 15.

For the most part, the operation will be fully contracted, with the exception of the process plant, which is intended to be fully operated and maintained by SMPL.

In summary, the operational philosophy is as follows:

- Mining – Contractor Operated;
- Processing – SMPL Operated;
- Haulage, Product Storage & Port Delivery – Contractor Operated;
- Village Services - Contractor Operated;
- Power Supply - Contractor Operated;
- Laboratory Services - Contractor Operated; and
- Water Treatment - Contractor Operated.

Table 15: Key Project Milestone Dates

Milestone	Date	
Approvals Milestone Dates		
DFS Completion	Jan 2023	
Project Finance Secured	May 2023	
Board / JV Approval to Commence Project	May 2023	
First Ore	Aug 2024	
First Shipment of Lead-Silver Concentrate	Sep 2024	
Dates for Key Packages	**On-Site Start Date**	**Completion**
Early Works	Mar 2023	Jun 2023
Construction camp installation and refurbishment	Apr 2023	Jun 2023
Process Plant and Non-Process Infrastructure	Jun 2023	Jul 2024
Water Storage Facility and Mine Water Settling Pond	Jun 2023	Oct 2023
Bulk Earthworks in Omega 1 Pit	Jun 2023	May 2024
TSF and Evaporation Pond	Sep 2023	Jun 2024
Power Supply installation and connection	Apr 2024	Jun 2024
Mining	Jun 2024	May 2032
Processing	Aug 2024	Feb 2033

Logistics

Concentrate is produced at the nominal rate of 110,000dmt per year. The Processing plant has a dedicated half-height container loading and sampling system. This system loads the containers, samples the concentrate and then closes/locks the lid. With a sealed lid the 5% moisture and concentrate is sealed inside and protected from the environment. Each container is then transported to Wyndham Port on triple road trains. Each road train is washed down before leaving the site. There will be two road trains completing four trips per day, delivering a total of 12 full containers to the port and returning 12 empty containers to the site. Each tip is 159km each way.

Handy Class ships with a capacity of ~10,000dmt will be employed to ship the concentrate to the buyer(s). Approximately one ship per month is required. Half-height containers are shuttled to the wharf from the Port storage area, and the ship's crane lifts each container using a specialised Rotainer rotator jig. The containers are lifted directly into the ships hold before they are rotated and the lid opened. Dust suppression systems such as mist sprays are employed at the hold's hatch. Capital provision has been made for the purchase of 800 containers.

Wyndham Port (Figure 12), through which concentrates produced from Sorby Hills will be shipped, is the only deep-water port between Broome and Darwin. Current exports include live cattle, raw mined products from across Northern Australia and produce from the Ord River irrigation area. The Port is designed and already established for the export of metal concentrates and bulk ore shipping. Imports include diesel and ammonium nitrate for the mining industry.

The Port operations and management are currently overseen by Cambridge Gulf, however, the facility is owned by the Department of Transport and regulated by the Kimberley Ports Authority. SMPL has executed a 10-year Agreement for Access and Stevedoring Service with Cambridge Gulf

Figure 12: Vessel loading activities at Wyndham Port

Occupational Health and Safety

SMPL is committed to designing, constructing and operating a project where the safety and health of everyone is valued, and people can be safe at work. The design of the mine and processing plant has considered safety in design principals to eliminate, or reduce, as many of the risks to personnel as possible. Systems to support the safe operation have been developed in preparation for construction and operation.

A risk management approach has been applied to the design of health and safety systems ensuring appropriate effort is applied to areas where engineering controls may be less effective.

The requirements of the Work Health and Safety Act (2021) and the Work Health and Safety (Mines) Regulations (2022) have been considered the 'minimum standard' for health and safety systems. Accordingly, a Mine Safety Management System (MSMS) has been developed aligned with ISO standard 45000. Principal mine health and safety hazards and their controls have also been identified to address events where multiple fatality, or series of single fatality, events could occur.

The MSMS and principal mine hazards will form the core for health and safety systems for the operation. Specific health and safety programmes will have worker involvement in design and implementation and appropriate reporting mechanisms will be implemented to monitor and report on success or areas of opportunity.

Project Risk Assessment

A project risk review was completed during late 2021 and reviewed in 2022, considering additional information from mine planning, plant design, community consultation and progress with permitting. The assessments were undertaken using a process map approach to the project and in compliance with AS 31000. The Sorby Hills Likelihood and Consequence descriptors and 5 X 5 risk matrix were applied. The ratings were based on the outcomes from design work with the application of risk reduction principles during the DFS phase.

The scope of these risk assessments was limited to the operational aspects of the Project and did not consider financial (FX, commodity pricing, construction cost, and the like) risks.

Additional risk reviews are planned by SMPL as the project progresses and will involve contracting partners and specialist consultants as appropriate. The risk register should be considered an evolving document which is reviewed and periodically updated throughout the study, design, and construction phases. It will also be used to inform mine and plant design and over all site layout to minimise risk and create a culture of 'safety in design.'

Sensitivity Analysis

A sensitivity analysis of key parameters shows the Project valuation is most sensitive to movements in the exchange rate and Lead metal price (Figure 13).

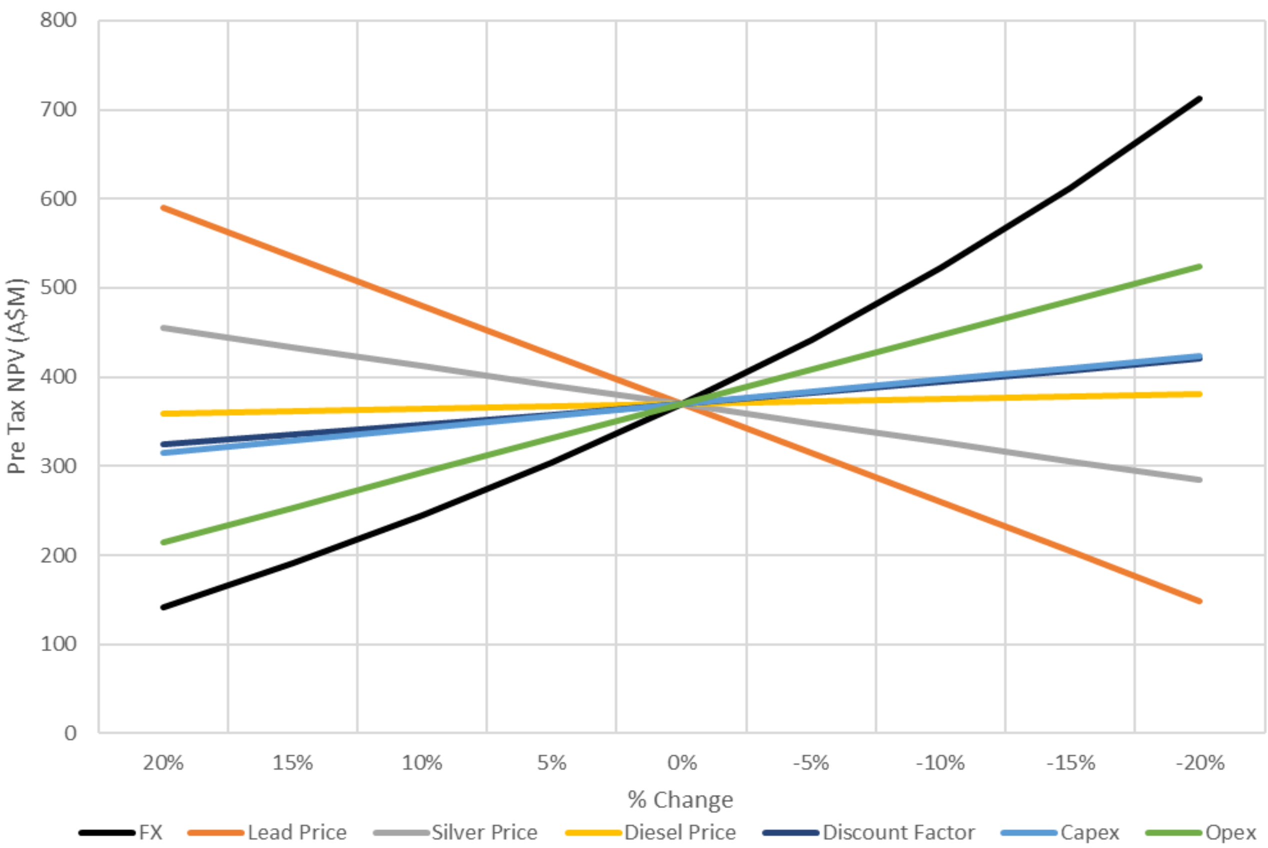

Figure 13: Sensitivity of Project NPV to key Project parameters

Comparison to Previous Reserve Statement

The updated Ore Reserve estimate was compared to the previous Ore Reserve from the 2020 Preliminary Feasibility Study and is shown in Table 16. The variations in Ore Reserve are driven by drilling conversion of Indicated Mineral Resource into the Measured category, the difference in price used between the studies, and the inclusion of Beta Pit. The reduction in Norton Ore Reserve is a result of a different strategy employed to access the pit which reduces the waste stripping and overall cost of the pit.

Table 16: Comparison to Previous Reserves

	2020 Preliminary Feasibility Study			Variation		
Ore Reserve Category	Ore (Mt)	Contained Metal		Ore (%)	Contained Metal	
		Pb (kt)	Ag (Moz)		Pb (%)	Ag (%)
B Pit	0.6	21	0.4	120%	112%	87%
Norton	2.1	84	5.5	-11%	-12%	-13%
Omega	4.1	170	5.7	75%	41%	50%
Beta	-	-	-	-	-	-
Proved	**6.8**	**275**	**11.6**	**53%**	**30%**	**22%**
B Pit	1.3	42	0.8	-27%	-34%	-35%
Norton	0.02	5	0.2	-78%	-66%	-72%
Omega	5.5	171	5.1	-47%	-38%	-37%
Beta	-	-	-	1.0*	37*	1.2*
Probable	**7.0**	**218**	**6.1**	**-30%**	**-21%**	**-18%**
Total Ore Reserve	**13.6**	**494**	**17.6**	**12%**	**7%**	**9%**

**Increase in quantity reported. Percentage increase not calculable.*

APPENDIX 2: JORC TABLE 1

2012 JORC CODE TABLE 1, SECTION 4

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	The Mineral Resource estimate used was prepared by David Williams of CSA Global and classified in accordance with the JORC 2012 guidelines. The basis of this Resource Estimate is as announced on the ASX 17 December 2021.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources are reported inclusive of the Ore Reserves.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	A site visit was conducted by the Competent Person as part of this report compilation. The site visit consolidated the understandings of environmental permitting, constraints around scheduling and operational context.
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	The Ore Reserve reported is part of a feasibility study prior to mining. The work undertaken to date has addressed all material Modifying Factors required for the conversion of Mineral Resources to Ore Reserves and has shown that the mine plan is technically achievable and economically viable. The Ore Reserves have been based on parameters obtained from BML, from relevant technical studies and engagements with prospective contractors in a mining tender process.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	A cut-off grade of 1% in situ Pb and a resource category (rescat) status of Indicated or Measured has been applied to each block for all deposits for possible inclusion into Ore Reserves. NSR calculations were used to determine the net value of each block. Net value was calculated as revenue less all operating costs. This mirrors the optimisation process.
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).	Input parameters for pit optimisation have been based on supplied revenue parameters, mining costs based on tender submissions and mineral processing and transportation costs from site. Commodity prices provided by BML were based on the Forward Curves for Lead Silver and A$:US$ extracted from Bloomberg on 7 December 2022. Average realised Metal prices of A$3,313.91/t Pb and A$37.89/oz Ag were used for revenue calculation for the Ore Reserve. These input parameters were reviewed by Entech Mining and considered appropriate for the current market. Updated Mining Block Models were supplied for all deposits and were optimised through Whittle. There were five pit designs completed from the mining model considered as suitable for Ore Reserve estimation.
	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	The proposed Sorby Hills operation will utilises a conventional open cut excavator and truck mining fleet. This mining fleet is considered suitable for this type of surface mining operation. The mining fleet will operate a period of pre-production stripping to provide construction materials and open access to ore. Ramp widths are suitable for the equipment selected. Roads are to be sheeted with fresh rock and maintained regularly to mitigate weather events.
	The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.	Geotechnical analyses of the deposits have been undertaken by Entech Pty Ltd. The overall pit slopes have been determined based on geotechnical domains and rock characteristics. Allowance has been made for the inclusion of haul roads, berm widths and

Criteria	JORC Code explanation	Commentary
		batter angles, but this varies for each deposit dependent on lithological codes and geometry of the orebody. The Block Models have all been coded with lithology which enables software to be more accurate for the pit optimisations with the overall slope angles. The proposed pit slopes are considered likely to be stable for the current pit designs.
	The major assumptions made, and Mineral Resource model used for pit and stope optimisation (if appropriate).	The Mineral Resource models have been wholly provided and reviewed by BML staff. The Mineral Resource Block Models were used for optimisation and mine planning after inclusion of additional attributes to become a Mining Model. A regularised Block Model was created with block sizes of 5 m x 5 m x 2.5 m for all deposits which is considered suitable for the proposed mining method and equipment. All pit designs vary the berm spacing based on the nature of the pit and ground conditions. Typically they are every 10 m – 20 m vertically and are appropriate for a 5 m bench height and agreed berm width.
	The mining dilution factors used.	The original Resource Models have been redefined into the SMU Block Models of 5 m x 5 m x 2.5 m. These levels are considered suitable for the deposit geometry, mining method and size of mining equipment. Dilution is incurred during the SMU creation process. The Ore Reserve is reported on a diluted Pb grade.
	The mining recovery factors used.	
	Any minimum mining widths used.	A minimum mining width of 20 m has been applied in the pit designs.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	Inferred Mineral Resources have not been included in the pit optimisations due to JORC Code (2012) requirements. Inferred material is assumed as waste Material.
	The infrastructure requirements of the selected mining methods.	Mine infrastructure is utilised and is suitable for current mining methods.
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	Ore is processed through primary crushing and semi-autogenous – ball mill grinding (SAB) with a lead and silver flotation circuit. The plant capacity is 2.25 million tonnes per annum with the first year of operation at 1.5 million tonnes per annum. The plant design and configuration have been developed in consultation with OMC, Primero and GRES after researching multiple options and conducting test work. The plant design and configuration are considered suitable for this style of mineralisation.
	Whether the metallurgical process is well-tested technology or novel in nature.	Crushing, SAG Milling and Flotation to produce concentrates is a well-understood and widely used technology appropriate for the commodities.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	The flotation testwork program was designed to investigate the performance of Oxide and Fresh ore under both separate processing and blended processing. To this end, “master” composites of Fresh, Oxide and Blended ore types were produced for flotation condition optimisation. This was followed by variability testing (34 samples), and finally optimisation of three period schedule-based composites for both separate oxide and fresh and blended treatment (9 composites). A total of 167 batch flotation tests and 4 six cycle locked cycle tests were performed. Flotation testwork was conducted in Sorby Hills site ground water. In addition, a 73kg bulk batch flotation of a Fresh ore composite including 39% Norton material produced a cleaner concentrate of 66.5% Pb grade and a Pb recovery of 93.9%.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Deposit</th><th>Material</th><th>Concentrate Grade (Pb%)</th><th>Recovery (Pb%)</th><th>Recovery (Ag%)</th></tr>
<tr><td>Omega Stage 1 & 2</td><td rowspan="5">Oxide</td><td>62.3</td><td>89.9</td><td>92.4</td></tr>
<tr><td>Pit B & Omega Stage 3</td><td>60.3</td><td>85.5</td><td>88.3</td></tr>
<tr><td>Omega Stage 4 & Omega South</td><td>67.3</td><td>79.9</td><td>89.3</td></tr>
<tr><td>Norton</td><td>66.0</td><td>85.6</td><td>89.9</td></tr>
<tr><td>Beta</td><td>50.0</td><td>60.1</td><td>56.5</td></tr>
<tr><td>Omega Stage 1 & 2</td><td rowspan="5">Fresh</td><td>66.9</td><td>95.1</td><td>86.3</td></tr>
<tr><td>Omega Stage 3 & 4, Omega South</td><td>66.2</td><td>95.2</td><td>87.0</td></tr>
<tr><td>Pit B</td><td>65.7</td><td>95.1</td><td>83.9</td></tr>
<tr><td>Norton</td><td>56.9</td><td>78.1</td><td>77.9</td></tr>
<tr><td>Beta</td><td>72.3</td><td>90.3</td><td>70.3</td></tr>
</table>
</td></tr>
<tr><td></td><td>Any assumptions or allowances made for deleterious elements.</td><td>Deleterious elements are tracked and calculated in the concentrate. Based on feedback on the concentrate specification provided to potential customers, no penalties for deleterious elements have been applied.</td></tr>
<tr><td></td><td>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</td><td>Extensive metallurgical testwork on drill core samples from the Sorby Hills deposit was carried out in the laboratories of the Technical Services Department of Mount Isa Mines Ltd, Mount Isa in the late 1970s and early 1980s. Subsequently, CBH Resources commissioned AMML to carry out a testwork program to confirm the results of the Mount Isa Mines work and investigate the replacement of sodium cyanide (NaCN), used as a depressant for iron pyrite and zinc sulphide, by alternative reagents. The results of this work appeared in Report 0034-1 dated 8 August 2008. Further testwork was carried out by AMML for Sorby Management, following the change in ownership of the Sorby Hills Project. The results appeared in Report 0194-1 dated 24 October 2011. A first stage of metallurgical testwork commissioned by Pacifico Minerals was reported 17 July 2019 (ASX Announcement). It confirmed the higher recoveries that can be obtained from this style of carbonate replacement mineralisation. Flotation recoveries of up to 96% Pb and 95% Ag were obtained and the testwork indicated that a final concentrate grade of 65% Pb can be produced. Outstanding results were also obtained to upgrade the ores prior to flotation by heavy liquid separation and by ore sorting.</td></tr>
<tr><td></td><td>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</td><td>Ore Reserves are based on Lead Grade in Concentrate. Ore reserves are sub-classified as oxidised (containing cerussite) and fresh (galena). Ore type specific metallurgical recovery algorithms have been used for each. The mine schedule has not been constrained by concentrate specification with respect to cerussite content. Off take partners have accepted the concentrate quality schedule.</td></tr>
<tr><td>Environmental</td><td>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</td><td>Multiple environmental assessments have been undertaken for permitting for the proposed production. Baseline studies have been undertaken and documentation prepared and submitted to the Department of Mines, Industry Regulation and Safety and the Department of Water and Environmental Regulations. These reports cover topics including clearing permits, dangerous goods, water use and disposal and storage of residual lead waste and potentially acid forming waste rock. Permitting is underway and timing of construction activities is pending the issuance of permits.

Initial Tailings will be stored in a clay-lined dam and later covered in 10 m of waste rock with the remaining tailings being pumped directly into pit voids and capped with 10 m of waste rock. The mine Schedule has been configured to release the pit voids in time for tailings deposition and where possible, backfilling of pits has been used to minimise permanent waste storage on the surface.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		Potentially Acid Forming waste rock and residual lead in waste rock will be fully encapsulated in benign waste rock when required to be stored on the surface or directly returned to a pit void.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	There is currently no infrastructure on site. Nearby Kununurra township will be utilised with labour sourced from local towns where possible. Flights will operate from Kununurra and a construction village will be located on site. A village will be located off site during operations. Infrastructure required to run the site will be constructed once permitting is in place and the requirement to operate a "clean side / dirty side" transition is required for any personnel or equipment required to move off site. Lead concentrate is to be trucked on the existing highway to the Port of Wyndham for export.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	Capital Costs have been developed through tender processes with construction companies.
	The methodology used to estimate operating costs.	Operating Costs have been developed from selected tender submissions from contractors.
	Allowances made for the content of deleterious elements.	Deleterious elements are tracked and quantities are calculated in the produced concentrate. Based on the current specification and indicative terms received from Offtakers there are no costs associated with the presence of deleterious elements.
	The source of exchange rates used in the study.	Exchange rates applied are based on A$:US$ Forward Curve extracted from Bloomberg on 7 December 2022.
	Derivation of transportation charges.	Transport charges have been developed from a range of quotations from suppliers.
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	TC/RC charges are based on feedback from Offtakers and are in line with industry standards
	The allowances made for royalties payable, both Government and private.	A Royalty of 4.3% has been used to cover government royalties and account for allowable deductions. Payabilities are based on industry standard formulae for Lead and Silver in concentrate
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	The revenue is a function of diluted block grade, modelled comprehensively through the mining, mineral processing, and transportation chain where it is expected to be delivered to offtake at a forecast price. Metal price and foreign exchange assumptions are based on the Forward Curves extracted from Bloomberg on 7 December 2022. Average realised Metal prices of A$3,313.91/t Pb and A$37.89/oz Ag were used for revenue calculation for the Ore Reserve The mine planning underpinning the Ore Reserves was conducted using preliminary, fixed point product pricing that was suitable for block model coding and mine design. The Ore Reserves are feasible and economic under the adopted pricing schedules.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	Approximately 746,000 (dry) metric tonnes of 64.7% lead concentrate and 666 g/t silver co-product are forecast over 7.3 years of the Ore Reserves model. Boab Metals Limited joint venture partner Henan Yuguang has rights to 25% of the product. The remaining 75% will be sold by BML under offtake. An offtake agreement is to be established for the remaining product.

Criteria	JORC Code explanation	Commentary
	A customer and competitor analysis along with the identification of likely market windows for the product.	Discussions with potential offtakers have indicated that given the volume and high quality of lead concentrate produced there is a ready market domestically and internationally for the product
	Price and volume forecasts and the basis for these forecasts.	Price and volume forecasts have been described above in revenue factors.
	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	No industrial minerals are produced.
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.	Cost inputs are derived from submitted tenders. A cash flow model has been produced that shows a positive discounted cash flow (DCF) and sufficient cash flow margin. The discount rate applied is 8%. The cash flow model has been based on expected operating costs with allowance for capital costs, taxes, depreciation and head office expenses.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	The optimisation shells upon which pit designs were based were generated at 100% of the base revenue. The shells were chosen as being the closest to the Revenue Factor 1 shell for each deposit to provide the most practical mining widths and continuous mining of the various pits. Some shells are more economically robust than others and so shell progression is more sensitive to changes in input variables in some of the deposits. Project sensitivity analysis has been undertaken within the detailed financial model on key economic assumptions. At 10% individual variances to any of these variables the project remains economic over life of mine and generates positive cashflows.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	An MOU agreement with the traditional owners of the land, the Miriuwung Gajerrong people is in place. Environmental and Cultural surveys have been undertaken to establish a baseline.
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	
	Any identified material naturally occurring risks.	The Sorby Hills mine site is in the Kimberley and thus is within a cyclone prone region. Mine and project design has included allowances for suitable drainage and water storage and production delays due to wet weather. The primary commodity is Lead which has inherent toxicity. Exposure of personnel will be monitored and safe work practices in the disposal of residual lead containing waste, water contamination and clean site exit plans are in place.
	The status of material legal agreements and marketing arrangements.	All material legal and marketing agreements are in place or are at an advanced stage of finalisation .
	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	All government approvals, licences, regulatory agreements and bonds necessary to operate the Sorby Hills mine site are in place or currently within the department's approval process. The exception to this is the Beta deposit. The Beta deposit has not yet received EPA approval. Extraction of the Beta deposit occurs late in the mining schedule and it was assumed that EPA approval would be received ahead of the commencement of mining at Beta. The Ore Reserves stated are located on active mining leases.

Criteria	JORC Code explanation	Commentary
Classification	The basis for the classification of the Ore Reserves into varying confidence categories.	The Mineral Resources above an in-situ variable economic cut-off grade within the designed open pits and below the surveyed end of year topography surfaces (as at 17 December 2021) has been modified by the application of suitable modifying factors and has been classified as Proved and Probable, based on the Measured and Indicated classification of the Mineral Resource estimate. The level of work undertaken through pit optimisation studies and pit designing is considered sufficient for the classification of Ore Reserves. 68% of the material included in the Ore Reserve is classified as Proved.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	Mr. Daniel Donald, the Competent Person for this Ore Reserve estimation, has reviewed the work undertaken to date and considers that it is sufficiently detailed and relevant to each of the deposits.
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	No Probable Ore Reserves have been based on Measured Mineral Resources.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserve has been estimated by independent consultants Entech Pty Ltd with BML providing the relevant direction and Entech providing CP signing off on the Ore Reserve. Entech have undertaken internal peer review during the process.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	The Competent Person deems that the methodology applied to arrive at the Ore Reserve estimate for Sorby Hills is appropriate and defendable. The overall accuracy of the cost estimate used in the estimation of these Ore Reserves is ±15%. The cost estimates have been derived from tender submissions, so the global accuracy is considered robust.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The statement relates to global estimates of a mine scale.
	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	Confidence in the application of the modifying factors is appropriate for the estimate.
	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	The mine is currently not in operation and no data is available for reconciliation.