Auking Mining Limited

Suite 2208, Level 22
127 Creek Street
Brisbane Queensland 4000

ASX:AKN

ABN 29 070 859 522
Phone 07 3535 1208
www.aukingmining.com

AUKING AKN

1 June 2023

ASX RELEASE

Koongie Park copper mine development to progress after positive Scoping Study results

AuKing Mining Limited (ASX: AKN) will progress its Koongie Park copper/zinc Project in Western Australia's Hall's Creek region to more advanced development studies after a Scoping Study completed this month confirmed the potential for a financially robust, globally competitive operation.

The Study showed the mine would source mineralisation from four open pit mines and an underground mine for an estimated total production of 110kt Cu, 38kt Zn and 355koz Ag over an 11 year mine life.

CAUTIONARY STATEMENTS

The Scoping Study referred to in this announcement is a preliminary technical and economic study of the potential viability of developing the Koongie Park Copper/Zinc Project by establishing a mine at Sandiego and constructing a processing facility onsite. The proposed development includes the nearby Onedin deposit together with the Mt Angelo North and Bommie deposits owned by Cazaly Resources Ltd (ASX:CAZ). The Scoping Study referred to in this announcement is based on low-level technical and preliminary economic assessments and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or certainty that the conclusions of the Scoping Study will be realised.

The Study is based on the material assumptions outlined below. These include assumptions about the availability of funding. While AKN considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or the range of outcomes indicated by the Study will be achieved.

To achieve the range of outcomes indicated in the Scoping Study, development funding in the order of A$135M will likely be required. Investors should note that there is no certainty that the Company will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of AKN's existing shares.

AKN

It is also possible that AKN could pursue other "value realization" strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce the Company's proportionate ownership of the project. Given the uncertainties involved, investors should not make any investment decision based solely on the results of the Scoping Study.

For the first 8 years of production (from the Sandiego, Mt Angelo North and Onedin deposits) 89%, 100% and 58% respectively is in the Indicated Mineral Resource category and the balance is in the Inferred Mineral Resource Category across the different deposits. The Company has therefore concluded it has reasonable grounds for disclosing a Production Target, given that the Scoping Study assumes that in the first 8 years of operation, an average of 86% of the production is from the Indicated Resource category. The inferred mineral resource is not considered to be a determining factor in determining the viability of the Koongie Park Project.

There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of further Measured or Indicated Mineral Resources or that the Production Target or preliminary economic assessment will be realised.

For full details of the Mineral Resource Estimates for the Sandiego and Onedin Resources, including JORC Table 1, please refer to AuKing ASX Release – on 7 April 2022. For full details of the Mineral Resource Estimates for the Mt Angelo North and Bommie Resources, including JORC Table 1, please refer to Cazaly ASX Releases on 31 January 2022 and 2 December 2022 respectively. AuKing confirms that it is not aware of any new information or data that materially affects the information included in those releases. All material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed.

This announcement contains forward-looking statements. AuKing has concluded that it has a reasonable basis for providing these forward-looking statements and believes it has a reasonable basis to expect it will be able to fund development of the Koongie Park 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 this study. The Study has been completed to a level of accuracy of +/-30% in line with industry standard accuracy for this stage of development. All dollar figures are presented in Australian dollars (AUD) except where specifically otherwise indicated.

AKN

Koongie Park copper mine development to progress after positive Scoping Study results

Key Highlights

Scoping Study confirms the potential for a financially robust, globally competitive copper/zinc project in north-east Western Australia, including nearby deposits owned by Cazaly Resources Ltd (ASX:CAZ).

• Mineralisation to be sourced from four open pit mines (Sandiego, Mt Angelo North, Onedin and a later-staged operation at the low-grade Bommie) and an underground mine at Sandiego – all to be processed from a central facility at Sandiego

• Total Mineral Resource Estimates (MRE) across the deposits are:

Sandiego – 4.1Mt @ 1.38% Cu, 4.28% Zn, 25g/t Ag

Onedin – 4.8Mt @ 0.7% Cu, 3.2% Zn, 0.3g/t Au and 38g/t Ag

Mt Angelo North – 1.72Mt @ 1.4% Cu, 1.4% Zn and 12.3g/t Ag

of which 86% is in the Indicated category across these three deposits, and

Bommie – 95.6Mt @ 0.27% Cu

of which 17% is in the Indicated category

• Life-of-Mine (LOM) of 11 years with an estimated total production of 110kt Cu, 38kt Zn and 355koz Ag

• Processing nameplate capacity is 750ktpa of run-of-mine (ROM) ore

Strong project economics and financial returns

• Pre-production Capex of A$134M, with an estimated 2.45 years payback period

• Robust pre-tax NPV_8% of approximately A$176.9M and 39.7% IRR

• Life of Mine EBITDA of A$443.8M with an average operating cashflow of A$40.3M per annum.

Board approval to proceed with further study work

• AKN is currently finalising its forward work plan for next stage studies. The Company has sufficient funds to commence further study work and to fund ongoing exploration.

AuKing Mining Limited CEO, Paul Williams commented, "*The results of the Scoping Study show the potential to establish a significant copper/zinc mining operation near Halls Creek in north-east Western Australia. The exploration team worked extremely hard throughout late 2021 and 2022 to provide a solid foundation for the Scoping Study. The proposed contribution of the nearby deposits of Cazaly Resources also makes a significant contribution to the project economics.*

"The AuKing Board is delighted with the robustness of the Project and its resilience to multiple factors that the resource industry is experiencing in Western Australia with increasing cost escalation and market conditions. The development team will now diligently progress all the necessary technical components and engineering work streams to ensure the Project is sufficiently de-risked allowing the Company to progress further development studies and possibly a final investment decision late next year. The Board has approved the commencement of further studies at the Project due to the compelling economics and the continuing strong copper market fundamentals."

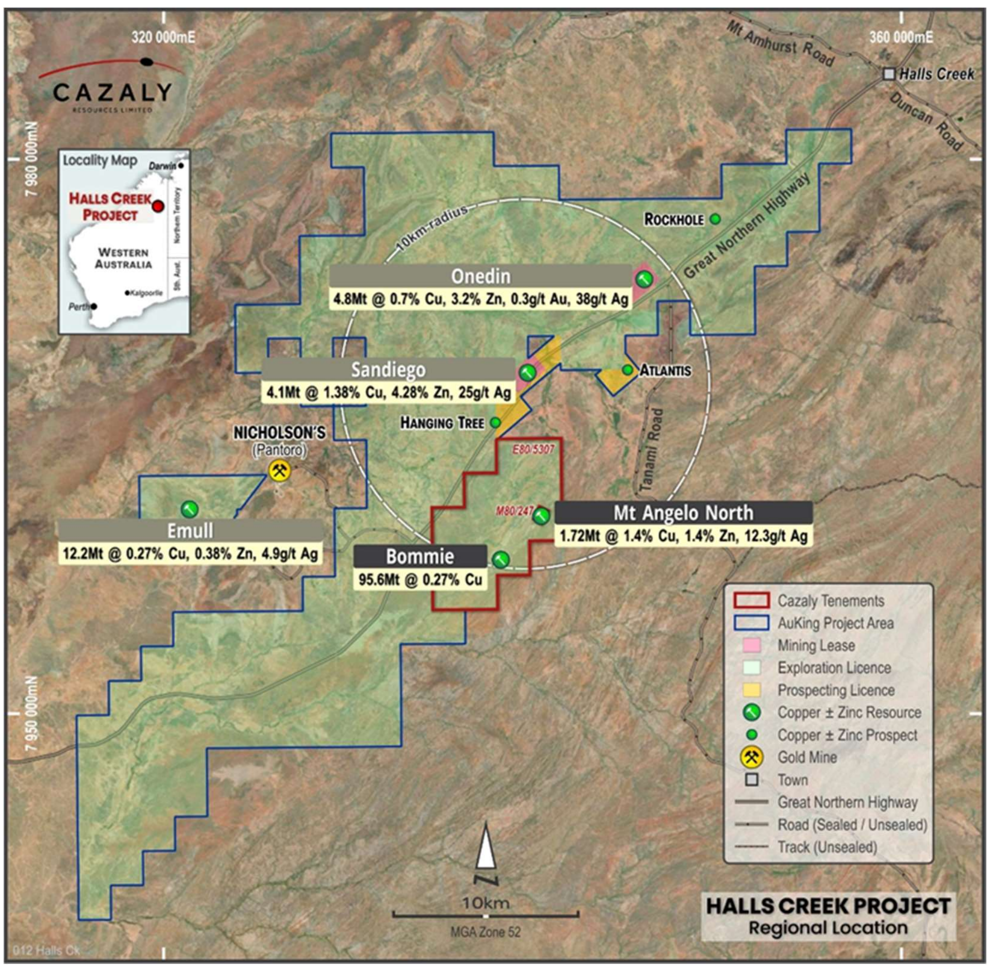


Figure 1 – Koongie Park Project deposit locations

AKN

Key Project Metrics

Key metrics below for the Koongie Park Scoping Study are set out below.

Key Metrics	Unit	Value
LOM Ore Mined & Processed	tonnes, Mt	8,087,891
LOM Copper Production	tonnes, t	109,893
LOM Zinc Production	tonnes, t	38,405
LOM	Years	11.45
LOM Average Product Grade – Copper	%	1.72
LOM Average Product Grade – Zinc	%	1.06
NPV (8%) (Pre-Tax)	AUD M	176.9
IRR (Pre-Tax)	%	39.7
Payback (start of production)	# Years	2.45
Initial Capex	AUD M	134.6
C1 Costs[1]	AUD/t Concentrate	7,197
Average Copper Price	USD/lb	3.90
Average Zinc Price	USD/lb	1.33
Average Annual Revenue	AUD M	143.6
Average Annual OPEX	AUD M	103.3
Average Annual EBITDA	AUD M	40.3

Table 1 – Koongie Park Project Key Metrics

1. Cash operating costs include all mining, processing, transport, freight to port, port costs and site administration. Excludes sustaining capital and WA Royalties.

The Scoping Study has been completed with the assistance of highly experienced and reputable independent consultants based in Western Australia, overseen by Wave International as Project Manager. Wave International is a resource development consultant with more than twenty years of global experience in engineering, project delivery, project, and asset management.

The Scoping Study was completed to an overall estimating accuracy of +/-30% (Class 5 estimate) and has a basis date for Q2 CY23. The Project is based on a 750ktpa mining and processing operation with the Study demonstrating strong financial metrics. The preliminary economic evaluation indicates the Koongie Park Project will generate significant net cash flows over an initial 11 year life-of-mine (LOM) with a capital payback of 2.4 years following first production.

Capital Costs

Capital costs are derived from various sources including the engineering database of Wave International and estimates based on recent actual pricing from similar WA mining operations. They include all pre-production site, processing plant, tailings dam and mining development and also sustaining capital post-production target start-up, as illustrated below:

Pre-Production Capital	Value ($M)
Site Infrastructure	11.7
Processing Facilities	60
Water Management	3.6
Underground Development	0
Open Pit Development	2.2
Total Pre-Production	**77.5**
Sustaining Capital – Life of Mine	**59**
Indirect Costs	**34**
20% Contingency	**23**
Total	**134.5**

Table 2 – Koongie Park Project Capital Cost Requirement

Operating Costs

Operating costs are derived from a number of sources including quotations supplied by vendors, the engineering database of Wave International and estimates based on similar WA mining operations.

Operating Costs	$M	$/t milled	$/t payable
Mining	649	80	4,375
Processing[1]	421	52	2,838
C1 Cash Cost	**1,070**	**132**	**7,222**
Royalty	79	9	532
Sustaining Capital	59	7	397
All-in Sustaining Cost (AISC)[2]	**1,208**	**148**	**8,143**

Table 3 – Koongie Park Project Operating Costs Breakdown

1. Processing costs include all site G&A, transportation and treatment charges. Excludes sustaining capital and WA Royalties.

2. All-In Sustaining Cost (AISC) includes C1 cash cost, royalties and sustaining capital. It does not include corporate cost, exploration cost and non-sustaining capital.

Other Considerations

Funding

In order to achieve the range of outcomes indicated in the Scoping Study, funding in the order of $135M will likely be required to commence production. AuKing has formed the view that there is a reasonable basis to believe that requisite funding for development of the Project will be available when required. The grounds on which this reasonable basis is established include:

- The Project has strong technical and economic fundamentals which provides an attractive return on capital investment and generates robust cashflows at conservative copper price assumptions. This provides a solid platform to source debt and equity funding.
- The Project presents an opportunity for the establishment of a significant copper/zinc/silver operation in a Tier One mining jurisdiction, with an estimated mine life of almost 12 years. In the current market where there is an expanding trend towards electrification and green energy, the Project appears ideally placed to attract investor and other funding support as development progresses.
- In a relatively short period of time, AuKing has established a track record of securing funding for the conduct of development activities at Koongie Park as and when funding has been required.
- It is AuKing's intention to appoint a corporate finance advisor in the near term to

assist with the sourcing of debt and equity funding as and when it is required over the next few years.

There is, however, no certainty that AuKing will be able to source funding as and when required. Typical project development financing would involve a combination of debt and equity. It is possible that such funding may only be available on terms that are dilutive to or otherwise affect the value of AuKing's existing shares.

Status of government agreements and approvals critical to Project viability

All of the working areas in the Scoping Study (with the exception of Bommie) are on approved mining licences with no current issues or outstanding requirements with DMIRS. There are no third party unresolved matters that are likely to impact upon approvals. In the case of the Bommie deposit, mining activities are not intended until year 8 of the mining schedule by which time it is expected that any unresolved statutory or commercial issues have been settled.

Onedin and the AmmLeach® Process

AuKing has conducted a series of small-scale tests on the oxide and transitional ores at the Onedin deposit to assess the potential application of the AmmLeach® ammonia-leaching process. This testwork program, which has been registered with the Commonwealth Government's R&D Incentive program is seeking to assess the potential to establish an alternative processing methodology for these Onedin ores that produces high recoveries. A significant amount of further testwork is planned here, based around a proposed pre-feasibility study to be managed by Perth-based Simulus Group.

In the meantime, with the addition of a sulphidisation plant into the proposed Scoping Study metallurgical process (especially for the semi-weathered or oxide materials), a base-case processing methodology has been established and is considered appropriate for this Study. It remains to be seen whether the recoveries at Onedin utilising the AmmLeach® process can be demonstrated to exceed those expected to be achieved utilising the flotation method.

Emull Deposit

On 1 December 2022 AuKing announced to ASX details of a maiden resource estimate for its Emull Deposit comprising **12.2Mt @ 0.27% Cu, 0.38% Zn, 0.09% Pb and 4.9g/t Ag.** As can be seen in Figure 1 above Emull is located within a close proximity to the proposed developments around the Sandiego deposit. AuKing has plans for additional drilling at Emull which is aimed at significantly increasing the existing resource estimates and these could support a future mining operation at Emull. However, at this stage, no provision for mining at Emull has been included in the Scoping Study.

Reasonable Basis for Forward-Looking Statements

No Ore Reserve has been declared in the Study. This ASX release has been prepared in compliance with the JORC Code (2012) and the ASX Listing Rules. All material assumptions on which the Study production target and project financial information are based have been included in this release. Consideration of Modifying Factors in the format specified by JORC Code (2012) Table 1, Section 4 is attached to this release.

This announcement has been authorised by Paul Williams, CEO, AuKing Mining Limited.

For more information, please contact:

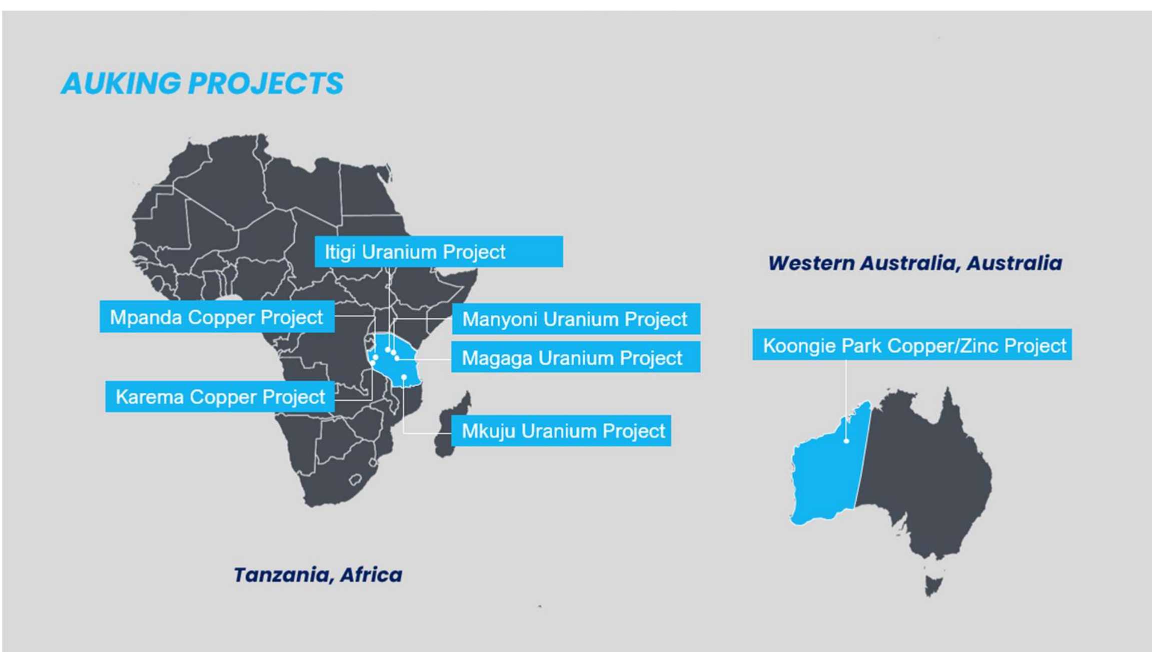
Paul Williams
Chief Executive Officer
Mobile +61 419 762 487
p.williams@aukingmining.com

Gareth Quinn
Investor Relations
Mobile + 61 417 711 108
gareth@republicpr.com.au

About AuKing Mining

AuKing Mining (ASX:AKN) is a mining exploration company focused on uranium, copper and zinc projects in both Tanzania and Australia.

For further information
www.aukingmining.com





KOONGIE PARK COPPER ZINC PROJECT

5943

AUKING MINING

May 2023

Level 3, 250 St Georges Terrace
Perth, Western Australia 6000
PO Box 7085, Cloisters Square
Western Australia 6850

t +61 (0)8 9204 0700
e enquiries@waveinternational.com
w www.waveinternational.com

WAVE International

PROJECT BRIEF

Project Number	5943
Project Title	KOONGIE PARK COPPER ZINC PROJECT
Client	AUKING MINING
Client Contact	Paul Williams
Client Address	Suite 27, Level 7, Christie Centre, 320 Adelaide Street, Brisbane QLD 4000

DOCUMENT STATUS

Rev	Date	Description	By	Reviewed	Approved
A	29 May 2023	Scoping Report	MR	SW	MR

DISCLAIMER

TABLE OF CONTENTS

1 INTRODUCTION 1
1.1 SUMMARY 1
1.2 GLOSSARY 3
2 SCOPE 4
3 STUDY CONTRIBUTORS 5
4 LOCATION, OWNERSHIP AND TENURE 6
4.1 LOCATION AND ACCESS 6
4.2 TOPOGRAPHY AND CLIMATE 6
4.3 TENURE 7
4.4 NATIVE TITLE 8
5 GEOLOGY AND RESOURCE 9
5.1 REGIONAL GEOLOGY KOONGIE PARK 9
5.1.1 Koongie Park Formation 9
5.1.2 Coolibah Tuff Member 9
5.1.3 Mimosa Sub-Member 10
5.1.4 Camp Shale Member 10
5.1.5 Weldon's Creek Lava Member 10
5.2 REGIONAL GEOLOGY MT ANGELO NORTH 10
5.3 MINERAL RESOURCE ESTIMATE 11
5.3.1 GENERAL 11
5.3.2 SANDIEGO 11
5.3.3 ONEDIN 11
5.3.4 MT ANGELO NORTH 12
5.3.5 BOMMIE 13
6 MINING 14
6.1 OPEN PIT MINING 14
6.1.1 GENERAL 14
6.1.2 SANDIEGO 14
6.1.3 ONEDIN 17
6.1.4 MT ANGELO NORTH 19
6.1.5 BOMMIE 20
6.1.6 OPEN CUT MINING COSTS 21
6.2 UNDERGROUND MINING 22

6.2.1 CUT OFF GRADE 23
6.2.2 STOPE OPTIMIZATION 23
6.2.3 MINE DESIGN 25
6.2.4 PRODUCTION RATE 27
6.2.5 UNDERGROUND SCHEDULE 28

7 METALLURGICAL TESTWORK 29

7.1 HISTORICAL TESTWORK 29
7.2 TESTWORK PROGRAMS 29
7.2.1 STAGE 1 BENCHSCALE TESTWORK PROGRAM 29
7.2.2 ADDITIONAL BENCHSCALE TESTWORK PROGRAM 29
7.3 CONCLUSIONS 30

8 MINERALS PROCESSING 31

8.1 GENERAL 31
8.2 DESIGN CRITERIA 31
8.3 PROCESS DESCRIPTION 32
8.3.1 COMMINUTION 33
8.3.2 FLOTATION 33
8.3.3 PRODUCT HANDLING 34
8.3.4 REAGENTS 34
8.3.5 TAILINGS DISPOSAL AND WASTE HANDLING 35

9 INFRASTRUCTURE AND LOGISTICS 37

9.1 SITE LAYOUT 37
9.2 POWER SUPPLY 38
9.3 WATER SUPPLY 38
9.4 WATER TREATMENT 38
9.5 ROADS 38
9.6 SUPPLY CHAIN AND PRODUCT TRANSPORT 39
9.7 NON-PROCESS BUILDINGS AND FACILITIES 39
9.8 CAMP ACCOMMODATION 39
9.9 TAILINGS 40
9.10 COMMUNICATION SYSTEMS 40

10 ENVIRONMENT, SOCIAL, COMMUNITY AND PERMITTING 41

10.1 EPA AND DAWE ASSESSMENT 41
10.2 KEY ENVIROMENTAL FACTORS 41
10.3 STAKEHOLDERS 42
10.4 NATIVE TITLE AND ABORIGINAL HERITAGE 43

11 IMPLEMENTATION 44
11.1 INTRODUCTION 44
11.2 KEY OBJECTIVES 44
11.3 DEVELOPMENT STRATEGY 44
11.4 PROJECT IMPLEMENTATION SCHEDULE 45
11.5 PROJECT DELIVERY STRUCTURE AND CONTRACTING STRATEGY 46
11.6 OPERATIONAL READINESS 48
11.6.1 RESPONSIBILITY 48
11.6.2 OVERVIEW 48
11.7 ASSET REGISTER 49
11.8 ORGANISATION CHART 50
12 CAPITAL COST ESTIMATE 51
12.1 ESTIMATE SUMMARY 51
12.2 BASIS OF ESTIMATE 52
12.2.1 GENERAL 52
12.2.2 DIRECT FIELD COSTS 52
12.2.3 CONSTRUCTION INDIRECT COSTS 53
12.2.4 NON-PROCESS INFRASTRUCTURE 53
12.2.5 OWNERS / INDIRECT COSTS AND CONTINGENCY 54
12.2.6 ESTIMATE CONSTRAINTS, ASSUMPTIONS AND EXCLUSIONS 54
12.3 ESTIMATE CLASSIFICATION 55
13 OPERATING COST ESTIMATE 56
13.1 ESTIMATE SUMMARY 56
13.2 ESTIMATE DETAILS 56
13.2.1 LABOUR 56
13.2.2 MAINTENANCE 58
13.2.3 POWER 59
13.2.4 REAGENTS AND CONSUMABLES 59
13.2.5 DIESEL 60
13.2.6 TRANSPORT AND LOGISITICS 60
13.2.7 FLIGHTS AND ACCOMMODATION 61
13.2.8 GENERAL AND ADMINISTRATION 61
13.2.9 MINING 62
14 ECONOMIC ANALYSIS 63
14.1 INTRODUCTION 63
14.2 SUMMARY 63

14.3 ACCURACY OF ESTIMATE ... 63
14.4 ASSUMPTIONS ... 63
14.5 KEY METRICS ... 64
14.5.1 REVENUE AND PROFITS FORECAST ... 65
14.5.2 SENSITIVITY ANALYSIS ... 65
15 FORWARD WORK PLAN ... 67
15.1 ENVIRONMENTAL APPROVAL ... 67
15.2 GEOLOGY ... 67
15.3 MINING ... 67
15.4 METALLURGICAL TESTWORK ... 68
15.5 WATER SUPPLY ... 68
15.6 GEOTECHNICAL ... 68
APPENDIX A: GLOSSARY ... 69

LIST OF TABLES

Table 1-1: Key Pre-Feasibility Report Metrics ... 2
Table 3-1: Study Contributors ... 5
Table 4-1: Climate Data for Halls Creek ... 7
Table 5-1: Sandiego Mineral Resource Estimate by Classification ... 11
Table 5-2: The Onedin MRE Reported by Classification ... 12
Table 5-3: Mt Angelo North Mineral Resource Estimate by Classification ... 12
Table 5-4: Bommie MRE by Classification ... 13
Table 6-1: Mt Angelo North Pit Shell Optimizations (Run 1) ... 19
Table 6-2: Bommie Pit Shell Optimizations (Run 3). ... 21
Table 6-3: Underground Mining Physicals ... 22
Table 6-4: Commodity Pricing, Metallurgical Recoveries and Payable Factors ... 22
Table 6-5: Underground Mining Costs ... 23
Table 6-6: Development Meters ... 25
Table 6-7: Underground Level by Level Analysis ... 27
Table 6-8: Production Rate Based on Inventory ... 27
Table 6-9: Mining Schedule by Year ... 28
Table 8-1: Design Criteria ... 31
Table 8-2: Waste Streams ... 36
Table 11-1: Contract Classifications ... 47
Table 11-2: Preliminary Contracts Register (and contribution to capex excluding contingency) ... 47
Table 12-1: Cost Estimate by Cost Type ... 51
Table 12-2: Direct Field Cost Allowances ... 53
Table 12-3: Indirect Costs Allowances ... 54
Table 12-4: AACE Definition ... 55
Table 13-1: Processing Operating Cost Estimate ... 56
Table 13-2: Labour Cost Summary ... 57

Table 13-3: Fixed Plant Maintenance Cost 58
Table 13-4: Light Vehicle Maintenance Cost........ 58
Table 13-5: Electrical Power Cost 59
Table 13-6: Reagent & Consumables Cost........ 59
Table 13-7: Diesel Cost 60
Table 13-8: Transport Cost 60
Table 13-9: Flights & Accommodation Cost........ 61
Table 13-10: G&A Costs........ 61
Table 13-11: Open Cut Mining Units........ 62
Table 13-12: Open Cut Mining Costs 62
Table 13-13: All-in Underground Mining Cost 62
Table 14-1: Project Operating Results 64

LIST OF FIGURES

Figure 1-1: Location map of the Koongie Park and nearby CAZ Projects, near Halls Creek, WA 1
Figure 4-1: Koongie Park and nearby Mt Angelo North Tenure Areas, near Halls Creek, WA 8
Figure 6-1: Sandiego Revenue Factor Scenarios 15
Figure 6-2: Discounted Best-Case Mining Scenario 16
Figure 6-3: Plan View of Pit Shell 20 16
Figure 6-4: Shell 20 with the Reblocked Model 17
Figure 6-5: Discounted Best-Case Mining Scenario 17
Figure 6-6: Onedin Revenue Factor Scenarios........ 18
Figure 6-7: Plan View of Shell 17........ 18
Figure 6-8: Shell 17 with the Reblocked Model 19
Figure 6-10: Mt Angelo North Pit Shell Pit 9 20
Figure 6-11: Copper Grade Tonnage Curve........ 24
Figure 6-12: Zinc Grade Tonnage Curve........ 24
Figure 6-13: NPV Analysis 25
Figure 6-14: Underground Design looking from East........ 26
Figure 6-15: Rib Pillar Selection looking from East 26
Figure 8-1: Proposed Koongie Park Processing Flowsheet Block Flow Diagram........ 32
Figure 9-1: Site Layout 37
Figure 11-1: Project Implementation Framework 44
Figure 11-2: Proposed Development Timing 45
Figure 11-3: Project Delivery Structure 46
Figure 11-4: Operational Readiness Structure........ 48
Figure 14-1: Project LOM Cash Flows 65
Figure 14-2: Bowtie Sensitivity Analysis........ 66
Figure 14-3: Tornado Chart Sensitivity Analysis........ 66

1 INTRODUCTION

1.1 SUMMARY

Auking Mining Limited (AKN) is the holder of an 87.5% interest in the Koongie Park Copper/Zinc project, situated just outside of the Halls Creek township in the north-eastern Kimberley region of Western Australia. The Koongie Park project has been the subject of a substantial amount of historical exploration and development work, including various feasibility study activities conducted by joint venture partner Astral Resources NL (AAR) between 2008 and 2011. The primary deposits at Koongie Park are Sandiego and Onedin and between them host resources of **8.9Mt @ 1.01% Cu, 3.67% Zn, 0.16g/t Au, 32g/t Ag and 0.77% Pb.**

AKN has signed a Memorandum of Understanding (MoU) with Cazaly Resources Limited (CAZ) to include that company's Halls Creek deposits in a project scoping study to be conducted by AKN. The primary CAZ deposits are Mt Angelo North which has a reported resource of **1.27Mt @ 1.4% Cu, 1.4% Zn and 12g/t Ag** and Bommie, which has a reported resource of **95.6Mt @ 0.27% Cu**. AKN and CAZ have agreed to make available all relevant technical data to support the Scoping Study under the MoU.

The Scoping Study will determine the potential viability of open pit and underground operations centred around AKN's Sandiego and Onedin Cu-Zn-Ag deposits and Cazaly's Mt Angelo Cu-Zn-Ag and Bommie Cu deposits, which are all situated less than 10km from each other.

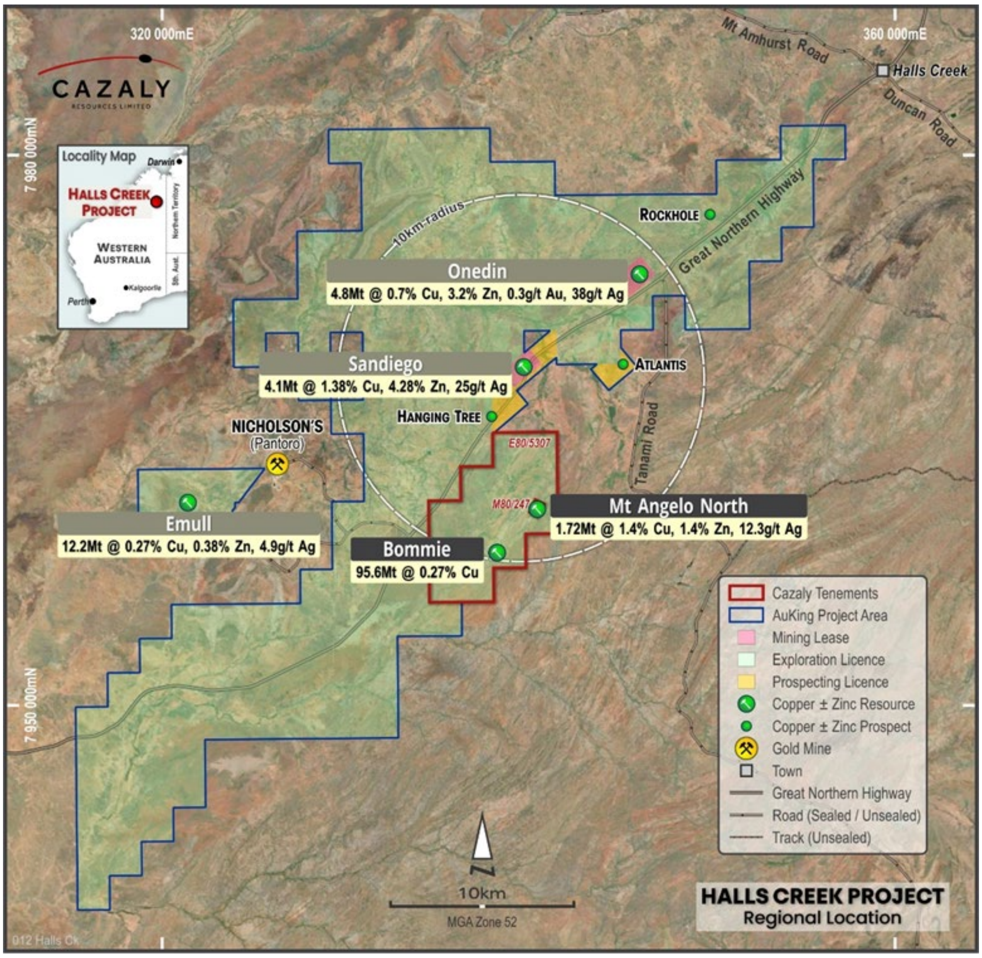


Figure 1-1: Location map of the Koongie Park and nearby CAZ Projects, near Halls Creek, WA

AKN's Emull deposit is a potentially large tonnage but low-grade deposit, that is also within reasonable proximity to Sandiego, but has not been included in the Study. However, being near to the proposed processing facility, this deposit could be developed at some future time depending on project economics and commodity prices.

The main combined Koongie Park and Mt Angelo North project area is at Scoping Stage development and located in Western Australia, a stable and top-ranked mining jurisdiction, in proximity to potential markets, predominantly in China, which is a key structural competitive advantage which makes it a highly desirable source of base metal supply.

The proposed development concept involves both Open cut and Underground mining methods, Sulfidation, Flotation and product logistics. The Project is capable of being well supported by the local community due to the area being familiar with mining activities for over 100 years and its potential to provide meaningful training and employment opportunities - acting as a catalyst for economic activity and the development of economic infrastructure in the Halls Creek region.

The Project is expected to employ up to 150 people during the development and construction with approximately 65-75 people during operations. There is a clear and established process with defined timeframes for project approvals to be obtained and the Project has the potential to be a key contributor to environmental management in the region.

Flora and fauna surveys have been conducted historically and no material issues have been identified.

Wave International has been engaged to assess the current data and prepare AACE class 5 level capital and operating cost estimates, generate a financial model (using mining inputs from others), and to prepare this report. This report is intended to provide a description of the proposed combined Halls Creek deposits of AKN and CAZ projects that will be the subject of future studies.

The key metrics from this report include:

Table 1-1: Key Pre-Feasibility Report Metrics

KEY METRIC	UNIT	TOTAL
LOM Ore Mined & Processed	tonnes, Mt	8,087,891
LOM Copper Production	tonnes, t	109,893
LOM Zinc Production	tonnes, t	38,405
LOM	Years	11.1
LOM Average Grade – Copper	%	1.72
LOM Average Grade – Zinc	%	1.06
NPV (8%) (Pre-Tax)	AUD M	176.9
IRR (Pre-Tax)	%	39.7
Payback (start of production)	# Years	2.45
Initial Capex	AUD M	134.6
C1 Costs	AUD/t Concentrate	7,197
Average Copper Price	USD/lb	3.90
Average Zinc Price	USD/lb	1.33
Average Annual Revenue	AUD M	143.6
Average Annual OPEX	AUD M	103.3
Average Annual EBITDA	AUD M	40.3

1.2 GLOSSARY

The definitions used throughout this report are listed in Appendix A.

2 SCOPE

The scope of this study is as follows:

1. Perform testwork on the available samples to ascertain a metallurgical recovery and OPEX parameters.
2. Review testwork data provided by AKN both from its own activities and historical study work.
3. Production scenarios: To complete an economic evaluation of agreed production scenarios of copper and zinc concentrate based on utilising ore from Koongie Park owned by AKN and supplemented by CAZ' Mt Angelo North and Bommie deposits.
4. Process plant engineering development:
    a. Utilise the information from historical work from AKN and CAZ provided to Wave.
    b. Incorporate current metallurgical testwork undertaken by AKN at Nagrom Laboratories.
    c. Progress process development and engineering development for the scenarios per above; and
    d. Develop key deliverables such as Block Flow Diagrams, Process Design Criteria, Mass and Water Balance, Mechanical Equipment List and layouts.
5. Economic evaluation:
    a. Complete capital and operating cost estimates to a Class 4 level (with reference to AusIMM) for the production scenario.
    b. Evaluate economics based on the scenario; and
    c. Report economic metrics including capital cost, and operating cost.
6. Risk and opportunity:
    a. Completion of a high-level risk and opportunity analysis; and
    b. High-level description of further work to either mitigate identified risks or explore opportunities in this study.

3 STUDY CONTRIBUTORS

The contributors to this Scoping Study are shown in Table 3.1.

Table 3-1: Study Contributors

CHAPTER	CONTRIBUTORS
4 – Location and Ownership	Auking Mining and Cazaly Resources
5 – Geology and Resource	Auking Mining and Cazaly Resources
6 – Mining	Auking Mining and Cazaly Resources
7 – Metallurgical Testwork	Wave
8 – Minerals Processing	Wave
9 – Infrastructure and Logistics	Wave Review Historical Work
10 – Environment, Social, Community and Permitting	Wave, Historical Work
11 – Implementation	Wave
12 – Capital Cost Estimate	Wave
13 – Operating Cost Estimate	Wave
14 – Economic Analysis	Wave Auking for pricing data

4 LOCATION, OWNERSHIP AND TENURE

4.1 LOCATION AND ACCESS

The Koongie Park/Mt Angelo North properties are located 25km south-west of Halls Creek in the north-east Kimberley region of Western Australia. Whilst Halls Creek is located in the isolated Kimberley region of Western Australia, it is well located with respect to roads and infrastructure. The main Great Northern Highway (National Highway #1) transects the mining leases allowing ideal transport access. Halls Creek has a range of government and transport services which will be highly advantageous to the project. In particular, the town has an airport and as the regional centre for the south-eastern Kimberley area has regular light aircraft flights to the town from Broome with connecting flights to Perth. Halls Creek also has a hospital, police station, shire offices and other government departments. Air charter services can also land at the Halls Creek aerodrome. Generally, access within the Project area is good via station tracks, fence lines and old exploration grid lines.

4.2 TOPOGRAPHY AND CLIMATE

Halls Creek has a tropical semi-arid climate with very hot summers and warm dry winters. There are two distinct seasons; the "wet", usually from December to March and characterised by high temperatures and the occasional rain event, and the "dry" for the remainder of the year. The mean annual rainfall is 575.6 mm over an average of 60 days, although there is considerable variation from year to year.

Over 80% of the average annual rainfall occurs between December and March and is associated with thunderstorms and tropical lows or cyclones. These systems can produce heavy rain over short periods and often a significant proportion of the yearly total can fall in just one or two days. The unreliable nature of the occurrence and movement of thunderstorms and tropical systems results in the annual rainfall being highly variable. From May to October, days are characteristically clear and sunny. The infrequent rain during the drier months is usually associated with cloud bands originating over tropical waters to the northwest.

While tropical cyclones can threaten the Kimberley coasts with storm force winds and high seas they weaken as they move inland. Halls Creek is far enough inland for the major effect to be heavy rainfall. It is not uncommon for very little rain to occur for many months. The median rainfall for the months of June to September is zero.

Halls Creek's average annual maximum temperature is 33.6°C and average minimum is 20.0°C. The hottest part of the year is November before the rains break, when the average maximum temperature is 38.3°C (BOM, 2020). The average relative humidity varies from 22-57% at 9am and from 16-40% at 3pm with the higher values occurring in the wetter December to March period. Evaporation is high and varies from an average of 11.3 mm per day in November to 6.1mm in June. Exploration and general bush work is sometimes limited in the hot wet season due to the extreme temperatures and the wet climatic conditions. The annualised data is summarized in Table 4-1 below.

The Koongie Park Project and Mt Angelo North lie across the watershed between the Laura River flowing to the southwest, the Margaret River flowing to the west, and the Elvire River flowing to the east. Elevations range from 380 m to 480 m above sea level with variable topography: flat, undulating, low rounded boulder-strewn hills, and subdued strike ridges. The more rugged Halls Creek Ridges lie to the southeast. Much of the surrounding region comprises extensive black-soil plains supporting grasslands and providing excellent grazing for the pastoral industry. Vegetation in the Project area comprises mostly spinifex grass, Acacia scrub and eucalyptus species.

Table 4-1: Climate Data for Halls Creek

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Record high °C (°F)	44.9 (112.8)	43.3 (109.9)	42.2 (108.0)	39.6 (103.3)	37.5 (99.5)	34.4 (93.9)	34.4 (93.9)	37.2 (99.0)	40.2 (104.4)	43.8 (110.8)	45.0 (113.0)	44.9 (112.8)	45.0 (113.0)
Average high °C (°F)	36.7 (98.1)	35.6 (96.1)	35.4 (95.7)	33.8 (92.8)	30.0 (86.0)	27.3 (81.1)	27.2 (81.0)	30.0 (86.0)	34.1 (93.4)	37.1 (98.8)	38.3 (100.9)	37.8 (100.0)	33.6 (92.5)
Average low °C (°F)	24.3 (75.7)	23.7 (74.7)	22.8 (73.0)	20.4 (68.7)	16.8 (62.2)	13.7 (56.7)	12.6 (54.7)	14.8 (58.6)	19.0 (66.2)	22.7 (72.9)	24.5 (76.1)	24.7 (76.5)	20.0 (68.0)
Record low °C (°F)	15.6 (60.1)	17.7 (63.9)	15.6 (60.1)	11.0 (51.8)	7.1 (44.8)	3.0 (37.4)	0.2 (32.4)	4.9 (40.8)	8.3 (46.9)	12.8 (55.0)	13.5 (56.3)	15.6 (60.1)	0.2 (32.4)
Average rainfall mm (inches)	155.2 (6.11)	141.8 (5.58)	82.7 (3.26)	21.6 (0.85)	12.9 (0.51)	5.2 (0.20)	6.1 (0.24)	2.1 (0.08)	4.4 (0.17)	17.3 (0.68)	39.3 (1.55)	83.1 (3.27)	571.5 (22.50)
Average rainy days	13.5	12.7	8.3	2.6	2.0	0.9	0.8	0.5	0.9	3.3	6.6	11.0	63.1
Average afternoon relative humidity (%)	36	40	33	25	26	25	21	18	16	17	22	29	26
Average dew point °C (°F)	19 (66)	18 (64)	17 (63)	10 (50)	6 (43)	4 (39)	1 (34)	0 (32)	2 (36)	6 (43)	12 (54)	17 (63)	9 (49)
Mean monthly sunshine hours	251.1	221.2	269.7	297.0	272.8	297.0	322.4	319.3	315.0	306.9	300.0	266.6	3,439
Mean daily sunshine hours	10.5	10.2	9.1	9.5	9.4	9.0	8.1	9.9	9.9	9.8	9.6	10.2	9.6

4.3 TENURE

The Koongie Park tenements consist of a portfolio of Prospecting, Exploration and Mining Licences covering an area of more than 500km². The Sandiego and Onedin deposits are located on granted mining licences with Sandiego situated on M80/276 (220.7Ha) and Onedin on ML80/277 (324.93Ha). Both ML80/276 and ML80/277 expire in 2031.

AKN currently holds an 87.5% participating interest in the various Koongie park tenures, including the two Mining Licences, pursuant to a Joint Venture Agreement dated 8 February 2021 with Astral Resources NL (previously known as Anglo Australian Resources NL) ("AAR"). Under the terms of the JV agreement, in the event of AAR's participating interest diluting below 10%, its interest in the Koongie Park project automatically reverts to a 0% participating interest and a 1% net smelter royalty. It is likely that this change in AAR's project interest will take place during the course of 2023.

The Mt Angelo North deposit is situated within M80/247 and covers an area of 42Ha. M80/247 has a current expiry of May 2030. A 1.5% net smelter royalty applies to Mt Angelo North in favour of a company called Squadron Resources Pty Ltd. CAZ also holds exploration licence E80/5307 across 3,920 Ha on which the "Bommie" deposit is situated. The licence has a current expiry of July 2024.

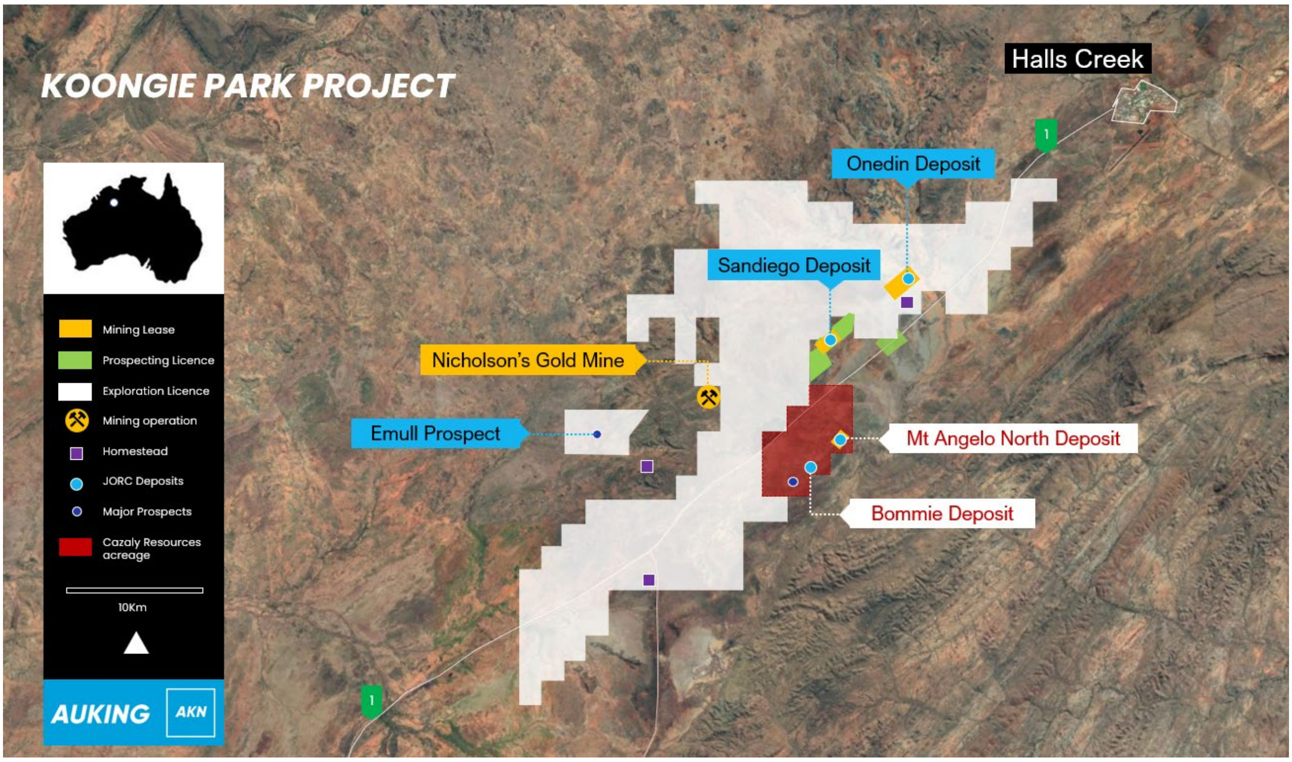


Figure 4-1: Koongie Park and nearby Mt Angelo North Tenure Areas, near Halls Creek, WA

The Koongie Park Project consist of a contiguous block of tenements extending between 5 km and 65 km southwest of the town of Halls Creek (Figure 3). The tenure package comprises twenty-six (26) tenements with two (2) mining leases, eight (8) exploration licences, and sixteen (16) prospecting licences. The total tenement area is approximately 544 km^2. AuKing has purchased the rights to base metal for these tenements from the holders Anglo Australian Resources NL (AAR). The rights to gold deposits are retained by AAR, with the rights to gold associated with predominantly base metal deposits with AuKing. The primary mineral assets, the Onedin and Sandiego copper-zinc-gold-silver deposits, lie within the granted mining leases M80/277 and M80/276, which expire in 2031.

As shown in Figure 4-1, the overall project area consists of a contiguous block of tenements extending between 5 km and 65 km southwest of the town of Halls Creek. The tenure package comprises eighteen (18) tenements with three (3) mining leases, ten (10) exploration licences, and five (5) prospecting licences.

4.4 NATIVE TITLE

The Koongie Park group of tenements and the two (2) CAZ licences are all within the Jaru/Lamboo and Koongie-Elvire lands. Agreements have been made with these Native Title parties with respect to the Prospecting and Exploration Licences. Further information is available in Section 10.4.

5 GEOLOGY AND RESOURCE

5.1 REGIONAL GEOLOGY KOONGIE PARK

The Halls Creek Copper Project is located in the Halls Creek orogen formed in the Paleoproterozoic due to the interaction of the Kimberley Craton to the north-west and the North Australian Craton to the east. The Paleoproterozoic plutonic rocks and volcano-sedimentary sequence of the Halls Creek orogen have been defined as the Lamboo Complex.

The Lamboo Complex has been divided into an Eastern, Central and Western tectonostratigraphic terrane and the Koongie Park Formation is located in the Central Terrane. The terranes are thought to have formed as a result of subduction and large-scale strike-slip faulting prior to 1820 Ma in a Paleoproterozoic plate margin setting (Tyler et al, 1999). The Koongie Park Formation (1843 +/-2Ma) postdates the Tickelara Metamorphics which consists of mafic volcanics, siltstones and mafic-ultramafic intrusions and is thought to represent an oceanic island arc – backarc basin above a southeast-dipping subduction zone, or an ensialic basin along the margin of the Kimberley Craton above a northwest dipping subduction zone (Sheppard et al., 1999).

In the project area, the Koongie Park Formation consists of a steeply dipping, highly deformed, sequence of spheroidal, felsic lavas, argillic sediments, volcaniclastic and various intercalated chemical sediments. In the central part of the project area, the Koongie Park Formation is gradational into greywackes and sandstones similar to the Olympio Formation. The sequence has been metamorphosed to green schist facies and four generations of folding have been documented (Orth 1993). The first phase of isoclinal folding can often be recognised in the central mineralised prospects and may have thickened the sulphide mineralization for Sandiego and Onedin

Further to the south, at Atlantis and Mt Angelo prospects, NS trending F2 folds have been interpreted by early explorers. Later shearing has affected the Sandiego and Onedin prospects and appears to have remobilised some of the sulphides. Dolerite and granite bodies outcrop along the western and southern margins of the Koongie Park prospect areas. In the east, granite intrudes the lower Coolibah Tuff Member of the Koongie Park Formation.

5.1.1 Koongie Park Formation

The formation consists of three members. From the base upwards, the Coolibah Tuff Member, the Camp Shale Member with a carbonate dominated lower portion known as the Mimosa Sub-Member and the Weldon’s Creek Lava Member. The base metal sulphides are confined to the thicker parts of the Mimosa unit occurring at the base of the Camp Shale Member. The mineralisation is comprised of a mixed, chemical sediment with abundant silicate, oxide and sulphide facies minerals including sphalerite, galena, chalcopyrite, pyrrhotite and minor tetrahedrite. A strong structural control on the localisation of the massive sulphide mineralisation near major structures and in tight isoclinal folds parallel to the plunge of the fold axis is evident at Sandiego and Onedin. Lead isotope studies indicate that the mineralisation appears to be derived from mainly one hydrothermal system with model ages of approximately 1,825 Ma, not dissimilar to the host unit age.

5.1.2 Coolibah Tuff Member

The Tuff consists of layered rhyolitic lapilli and quartz eye volcanoclastic and lavas and forms the footwall to all known mineralisation. It outcrops as a light reddish brown, massive friable rock with prominent phenocrysts of quartz, while in drill core it appears dark green with quartz phenocrysts up to 12mm in size in a strongly foliated matrix comprising muscovite, quartz and chlorite. Laminated chert-carbonate beds are developed towards the top of the sequence. In the Atlantis area, the base of this unit is transitional into more basic andesitic and basaltic lavas. Locally peperite has been observed (Rockhole, Onedin), indicative of the intrusive sub-volcanic nature of the coherent unit.

5.1.3 Mimosa Sub-Member

The sub member hosts most of the base metal sulphide mineralisation and is characterised by its abundant carbonate content and consists of intercalated chert, chlorite schist, banded magnetite or pyrrhotite-chlorite rock, black shales (locally pyritic), impure dolomite, calc-silicates, with fine grained andesitic lavas and volcanoclastic. The carbonate at Onedin shows relics of glassy textures indicative of a hydrothermal system probably operating in a sea floor environment.

5.1.4 Camp Shale Member

The Shale member forms the hanging wall to the mineralisation, and consists of a monotonous sequence of cleaved siltstones, and sericitic meta-siltstone which is carbonaceous at the base and interbedded with fine grained andesitic to dacitic volcanoclastic and lavas, with rare thin (cm-dm) chert- BIF interbeds, which are locally mineralised.

5.1.5 Weldon's Creek Lava Member

The lava member is a generally massive and coherent spherulitic, dacite-rhyolite lava flows, aphyric to slightly quartz phyric, with minor thin banded iron formations and cherts. Interbedded siltstones and sandstones occur towards the top of the sequence.

5.2 REGIONAL GEOLOGY MT ANGELO NORTH

The tenement straddles the Koongie Park Formation that represents one of the basal units of the Lamboo Complex occurring within the Halls Creek Mobile Zone (HCMZ). The Paleoproterozoic Koongie Park Formation represents a sequence of mafic volcanics, felsic volcaniclastic and volcanics, turbiditic sandstone, siltstone and mudstone units, with interbedded chert, banded iron formation (BIF) and carbonate rocks. The Koongie Park Formation occupies the central portion of the HCMZ straddling the Great Northern Highway from 30 km north of Halls Creek to 50 km to the southwest.

The eastern portion of the HCMZ consists of greywacke, siltstone, sandstone, marble, impure calcareous rocks, chert and minor mafic lavas and sills. Major NNE – SSW trending mantle tapping faults (Halls Creek Fault) and associated splays effectively slice the HCMZ. Rocks to the east of the fault are the metavolcanics of the Biscay Formation and the metasediments of the Olympio Formations while the rocks to the east include the Koongie Park Formation in addition to elements of the Olympio Formation, Milba Formation, Moola Bulla Formation as well as the intrusive Loadstone Monzogranite and Mt Angelo Microgranite.

The Loadstone Monzogranite is the largest intrusive body within the project area. Studies indicate that the monzogranite is enriched in potassium relative to the Bow River Batholith to the west of the project area, which is reflected in the higher radiometric total count values over the monzogranite.

Deformation during the Halls Creek Orogeny has resulted in the Koongie Park Formation and underlying basalts being folded into a series of tight north-northeast trending anticlines and synclines. The structure in the project area is dominated by a regional set of northeast trending transcurrent faults. The Halls Creek Fault and two of its splays, the Highway Fault and the Caroline Fault, are regarded as crustal dislocations that were active during the Paleoproterozoic. Adjacent to fault zones, rocks are characterised by higher metamorphic grade and more intense shearing and brecciation.

Mineralisation in the area is related to litho-tectonic domains and includes VHMS base metal mineralisation associated with the Koongie Park Formation, gold mineralisation distributed around the northern and southern margins of the Loadstone Monzogranite and shear-hosted epigenetic vein systems associated with major fault zones at "Old Halls Creek", mainly to the east of the Halls Creek Fault. Disseminated copper mineralisation is associated with the Mt Angelo Granophyric Microgranite that occurs immediately south of the Mt Angelo North VHMS deposits and may potentially be related to it.

5.3 MINERAL RESOURCE ESTIMATE

5.3.1 GENERAL

The Mineral Resources are classified as a combination of Indicated and Inferred and have been reported in accordance with the JORC Code, with geological and sampling evidence sufficient to assume geological and grade continuity within the volumes classified as Indicated. The classification levels are based upon an assessment of geological understanding of the deposit, geological and grade continuity, drillhole spacing, quality control results, search and interpolation parameters, and an analysis of available density information.

5.3.2 SANDIEGO

The Sandiego Mineral Resource is classified as a combination of Indicated and Inferred.

The Mineral Resource Estimate (MRE) has been reported in accordance with the JORC Code and it is therefore suitable for public release.

The MRE for Sandiego is quoted above a cut-off grade of 0.8% Cu and 3% Zn. The Mineral Resources were published on the 4th of April 2022. The Mineral Resources are presented in Table 5-1.

Table 5-1: Sandiego Mineral Resource Estimate by Classification

	Classification	Tonnes (Mt)	Copper (%)	Zinc (%)	Gold (g/t)	Silver (g/t)	Lead (%)
Cu Dominant	Indicated	1.7	2.3	0.8	0.3	18	0.2
	Inferred	0.3	1.6	3.0	0.2	5	0.0
	Sub Total	**2.0**	**2.2**	**1.1**	**0.3**	**16**	**0.1**
Zn Dominant	Indicated	2.0	0.6	7.3	0.1	35	0.7
	Inferred	0.1	0.2	6.1	0.1	10	0.1
	Sub Total	**2.1**	**0.6**	**7.3**	**0.1**	**34**	**0.7**
Resource Total and Grades		**4.1**	**1.4**	**4.3**	**0.2**	**25**	**0.4**

5.3.3 ONEDIN

The Onedin Mineral Resource is classified as a combination of Indicated and Inferred.

The Mineral Resource Estimate (MRE) has been reported in accordance with the JORC Code and it is therefore suitable for public release.

The MRE for Onedin is quoted above a cut-off grade of 0.4% Cu and 1.0% Zn. The Mineral Resources were published on the 4th of April 2022. The Mineral Resources are presented in Table 5 2.

Table 5-2: The Onedin MRE Reported by Classification

Zone	Classification	Tonnes (Mt)	Copper (%)	Zinc (%)	Gold (g/t)	Silver (g/t)	Lead (%)
Cu Dominant	Indicated	1.5	1.1	0.6	0.2	47	1.2
	Inferred	-	-	-	-	-	-
Zn Dominant	Indicated	3.3	0.5	4.3	0.1	34	1.0
	Inferred	-	-	-	-	-	-
Resource Total and Grades		**4.8**	**0.7**	**3.2**	**0.1**	**38**	**1.1**

5.3.4 MT ANGELO NORTH

The Mt Angelo North Mineral Resource is classified as a combination of Indicated and Inferred.

The Mineral Resource Estimate (MRE) has been reported in accordance with the JORC Code and it is therefore suitable for public release. The MRE is reported by classification in Table 5-3.

The MRE for Mt Angelo North is quoted above a cut-off grade of 0.4% Cu and 1% Zn. The lower cut-off grades were determined using grade distribution analysis, vario-graphy and are considered appropriate for the style of deposit and potential open pit mining operations. Mineral Resources were published on the 31st of January 2022.

Table 5-3: Mt Angelo North Mineral Resource Estimate by Classification

CLASSIFICATION				
Indicated	**Tonnes** **t**	**Cu** **%**	**Zn** **%**	**Ag** **ppm**
Oxide	149,000	1.4	0.9	21
Transitional	158,000	1.7	1.5	16
Fresh	699,000	1.7	1.8	13
Total	1,007,000	**1.6**	**1.6**	**15**
Inferred	**Tonnes** **t**	**Cu** **%**	**Zn** **%**	**Ag** **ppm**
Oxide	67,500	0.9	0.9	21
Transitional	157,000	1.2	0.6	16
Fresh	487,000	1.0	1.4	13
Total	712,000	**1.0**	**1.2**	**9**

TOTAL RESOURCE	Tonnes t	Cu %	Zn %	Ag ppm
Oxide	216,000	1.2	0.9	17
Transitional	316,000	1.4	1.1	12
Fresh	1,187,000	1.4	1.6	12
Total	1,718,000	**1.4**	**1.4**	**12**

5.3.5 BOMMIE

The Bommie Mineral Resource is classified as a combination of Indicated and Inferred.

The Mineral Resource Estimate (MRE) has been reported in accordance with the JORC Code and it is therefore suitable for public release.

The MRE for Bommie is quoted above a cut-off grade of 0.24% Cu. The lower cut-off grades were determined using grade distribution analysis, vario-graphy and are considered appropriate for the style of deposit and potential open pit mining operations. The Mineral Resources were published on the 24th of November 2022. The Mineral Resources are presented in Table 5-4.

Table 5-4: Bommie MRE by Classification

CLASSIFICATION		
Indicated	**Tonnes t**	**Cu %**
Oxide	212,000	0.29
Transitional	2,799,000	0.3
Fresh	13,091,000	0.3
Total	16,102,000	**0.3**
Inferred	**Tonnes t**	**Cu %**
Oxide	1,108,000	0.27
Transitional	6,978,000	0.28
Fresh	71,380,000	0.27
Total	95,568,000	**0.27**

6 MINING

6.1 OPEN PIT MINING

6.1.1 GENERAL

Auking Mining engaged Mine Planning Services to complete the mining engineering study for Sandiego and Onedin open cut mines suitable for inclusion in the Scoping Study. The high-level designs include confirmatory pit design using Project parameters as agreed with Auking and Wave International. In addition an independent consultant was engaged for the Sandiego underground study.

Cazaly Resources engaged an independent consultant to complete the mining engineering study for Mt Angelo North and Bommie open cut mines suitable for inclusion in the Scoping Study. The high-level designs include confirmatory pit design using Project parameters as agreed with Auking, Cazaly and Wave International.

For all pit shells conventional open pit mining techniques of drill and blast followed by excavate, load and haul are suitable for both mines. Proposed mining equipment will be two (2) Komatsu PC1250 excavators, two (2) Caterpillar 785C dump trucks, four (4) 777G dump trucks, and appropriate ancillary equipment to support mining activities.

A production schedule based on Indicated and Inferred Mineral Resources has been developed to maintain a variable ROM throughput targeting an average Copper/Zinc throughput of circa 2,000 tonnes per day has been developed, resulting in a Life of Mine (LOM) of approximately 12 years, inclusive of pre-production mining, production ramp-up and ramp-down.

Other modifying factors of dilution and ore loss were generated based on comparisons with a range of similarly sized open pit mining projects. It was modelled to apply a 20% dilution as a way of recovering 95% of the ore during the mining process. The remaining 5% of ore was considered lost in the mining process.

All pit and infrastructure will be in the current lease boundaries. Pits have been designed based on the high-level assumptions utilizing the CSA Global estimated resources quantities as a reference point and pit slope angles of 44° as a conservative approach.

The details of the equipment sizing and the way the benches will be mined will be dependent on the mining contractor but initial work with a preferred contractor has indicated that each 5m bench will be blasted with 1m of subdrill and that mining will be in two flitches of around 3m each. If heave is an issue there may be a need to go to 3 flitches. The bench sizes may necessitate a change in the block model in terms of the z-size or some changes in berm levels.

Grade control will be done by dedicated drill rig with blast holes simply used to confirm lithological contacts.

The optimisation process indicates that all ore sources can be extracted from the pits in the same manner.

6.1.2 SANDIEGO

The CSA report gave resources for the Cu dominant and Zn dominant zones for each deposit. The same methodology will be applied to both deposits.

The resource models were generated in Datamine and sub-blocks are as small as $0.5m^3$ which required re-modelling to practical blocks sizes for mining. For simplicity the mine planning work was done with a copper equivalent variable and the results for the two deposits are reported in terms of Cu/eq with the copper cut-off for each deposit used. The actual metallurgical recovery was higher in the testwork completed at Nagrom however a conservative approach was adopted for the optimization process.

The following is the methodology used for the Copper equivalent cut-off for Zinc production.

- Copper AUD$10,740/t 90% recovery
- Zinc AUD $4,189/t 80% recovery

Recovered zinc was written as a function of recovered copper.

Recovered Zinc = (4,189 * 0.8) Recovered Copper = (10,740 * 0.9)

= 3351 = 9,666

Recovered zinc as Cu = 3351/9666

=0.3467

Cu/eq = Cu% + (Zn% * 0.3467)

The resultant models had some loss of metal compared to the resource:

- Sandiego 4.4% loss of Cu/eq metal using 0.8%Cu cut-off
- Onedin 0.2% loss of Cu/eq metal using 0.4%Cu cut-off

In both cases there were changes in ore tonnes:

- Sandiego 110kt or 2.2% decrease in ore tonnes using 0.8%Cu cut-off
- Onedin 400kt or 5.8% increase in ore tonnes using 0.4%Cu cut-off

This variable was added to the models and new resource reports generated using the copper cut-offs for each deposit from the CSA resource statements.

Analysis of Sandiego indicated that Revenue factor 1 shell was appropriate at Scoping Study level as indicated in Figure 6-1:

SANDIEGO									
Pit shell	Revenue factor	Life best YEARS	Life worst YEARS	Rock kt	Ore kt	Waste kt	CuEq %	Strip t/t	Recovered CuEq tonnes
6	0.44	1.6	2.1	16,588	741	15,847	0.04	21.4	27,555
7	0.46	1.6	2.2	16,908	758	16,150	0.04	21.3	28,022
8	0.48	1.7	2.4	17,652	794	16,858	0.04	21.2	28,996
9	0.50	1.7	2.5	18,327	827	17,499	0.04	21.1	29,850
10	0.52	1.7	2.5	18,364	829	17,535	0.04	21.2	29,895
11	0.54	1.9	2.7	19,699	890	18,808	0.04	21.1	31,467
12	0.56	1.9	2.7	19,746	893	18,853	0.04	21.1	31,525
13	0.58	2.0	2.9	21,004	953	20,051	0.04	21.0	32,907
14	0.60	2.1	3.0	22,032	995	21,037	0.04	21.1	33,960
15	0.62	2.1	3.0	22,103	1,000	21,103	0.04	21.1	34,042
16	0.64	2.1	3.0	22,480	1,020	21,460	0.04	21.0	34,421
17	0.66	2.1	3.0	22,509	1,021	21,488	0.04	21.0	34,448
18	0.68	2.2	3.1	23,419	1,062	22,357	0.04	21.1	35,280
19	0.70	2.3	3.2	24,114	1,089	23,025	0.04	21.1	35,897
20	0.72	2.4	3.3	25,573	1,151	24,422	0.04	21.2	37,160
21	0.76	2.4	3.3	25,709	1,157	24,552	0.04	21.2	37,280
22	0.78	2.5	3.4	26,497	1,193	25,304	0.04	21.2	37,918
23	0.80	2.5	3.4	26,960	1,211	25,748	0.04	21.3	38,276
24	0.82	2.5	3.4	27,225	1,219	26,006	0.04	21.3	38,465
25	0.84	2.5	3.5	27,356	1,225	26,130	0.04	21.3	38,568
26	0.86	2.7	3.6	29,003	1,297	27,706	0.03	21.4	39,790
27	0.88	2.7	3.7	29,999	1,335	28,664	0.03	21.5	40,498
28	0.92	3.0	3.9	32,924	1,446	31,478	0.03	21.8	42,552
29	0.94	3.0	4.1	33,948	1,484	32,464	0.03	21.9	43,223
30	0.96	3.0	4.1	34,004	1,486	32,518	0.03	21.9	43,260
31	1.00	3.1	4.3	35,175	1,526	33,649	0.03	22.0	43,999

Figure 6-1: Sandiego Revenue Factor Scenarios

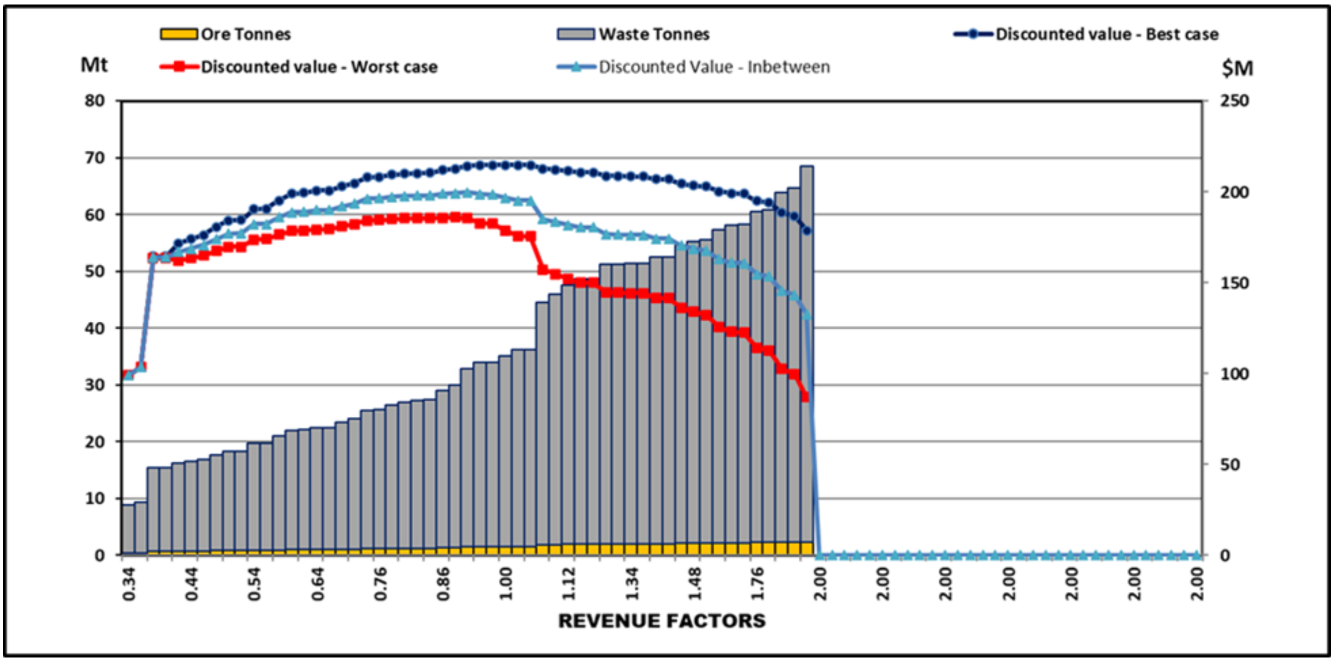


Figure 6-2: Discounted Best-Case Mining Scenario

The cutbacks are virtually the same on all sides and future Geotechnical work may require re-optimization. With the distance between the smallest and largest shells selected for assessment being 40m, it is assumed Shell 20 forms the base case as it provides the best optimisation.

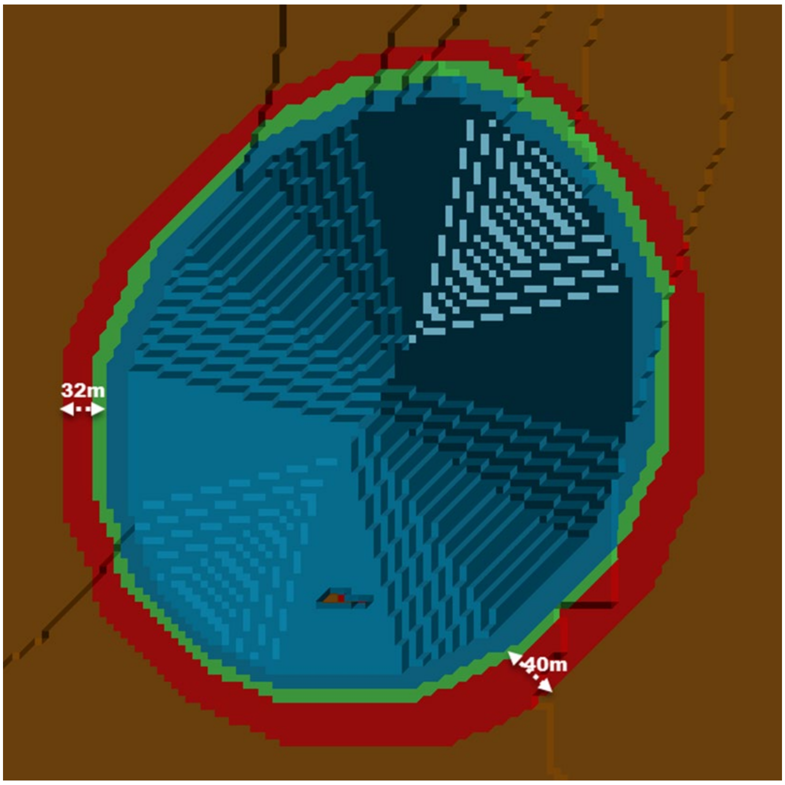


Figure 6-3: Plan View of Pit Shell 20

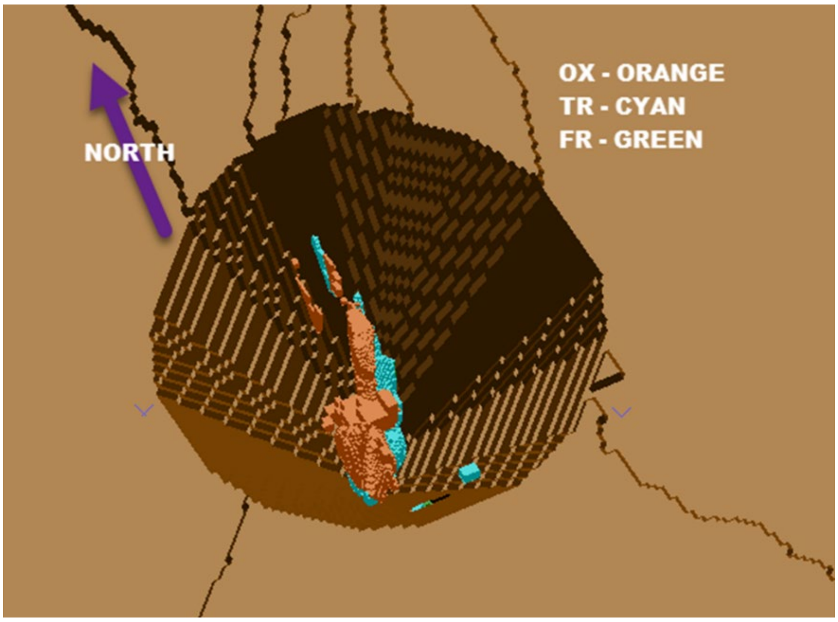


Figure 6-4: Shell 20 with the Reblocked Model

The rotated view in Figure 6-4 shows mostly oxide and transitional ore. The first ore is around 60m from the surface. The bottom of the pit is at 230mRL which is 185m below surface. With ramps and minimum mining widths the base would likely be at 240mRL which allows portal access for the Sandiego underground mine.

This pit optimisation generates 1.16Mt at 3.71% Cu/eq and 29.52Mt of waste removal. Inferred ore is included in the mining schedule however it is not considered material representing 129Kt of ore scheduled or 11% of the total ore.

6.1.3 ONEDIN

Analysis of Onedin represented a flatter curve than Sandiego representing that the cost inputs do not have a material effect on the optimization and is represented below in Figure 6-5:

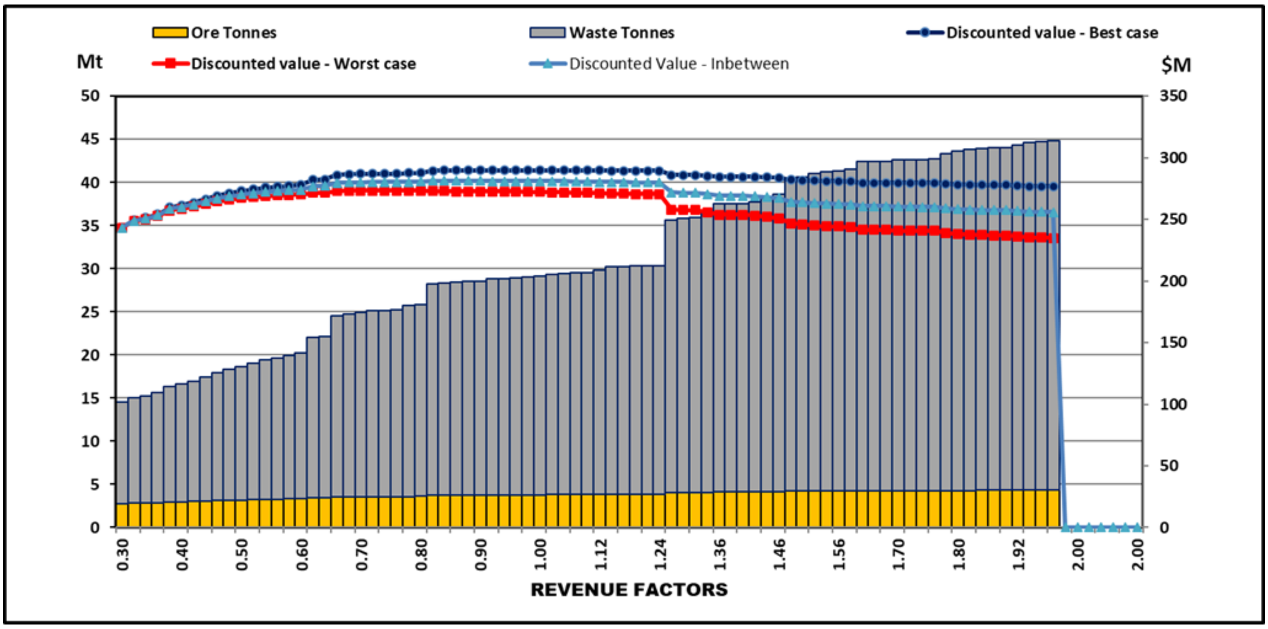


Figure 6-5: Discounted Best-Case Mining Scenario

Multiple shells were considered and are highlighted below.

ONEDIN									
Pit shell	Revenue factor	Life best YEARS	Life worst YEARS	Rock kt	Ore kt	Waste kt	CuEq %	Strip t/t	Recovered CuEq tonnes
9	0.46	6.2	6.2	17,891	3,117	14,774	0.02	4.7	50,804
10	0.48	6.3	6.3	18,291	3,156	15,136	0.02	4.8	51,373
11	0.50	6.4	6.4	18,677	3,192	15,485	0.02	4.9	51,904
12	0.52	6.4	6.4	19,065	3,224	15,841	0.02	4.9	52,384
13	0.54	6.5	6.5	19,445	3,261	16,183	0.02	5.0	52,861
14	0.56	6.6	6.6	19,646	3,282	16,364	0.02	5.0	53,123
15	0.58	6.6	6.6	19,930	3,307	16,623	0.02	5.0	53,443
16	0.60	6.7	6.7	20,268	3,334	16,934	0.02	5.1	53,793
17	0.62	6.9	6.9	22,028	3,447	18,581	0.02	5.4	55,483
18	0.64	6.9	6.9	22,122	3,454	18,668	0.02	5.4	55,582
19	0.66	7.1	7.1	24,516	3,535	20,981	0.02	5.9	57,361
20	0.68	7.1	7.1	24,773	3,548	21,225	0.02	6.0	57,572
21	0.70	7.1	7.1	24,977	3,557	21,420	0.02	6.0	57,728
22	0.72	7.1	7.1	25,094	3,565	21,529	0.02	6.0	57,837
23	0.74	7.1	7.1	25,145	3,568	21,577	0.02	6.0	57,876
24	0.76	7.1	7.1	25,189	3,571	21,618	0.02	6.1	57,910
25	0.78	7.2	7.2	25,707	3,594	22,112	0.02	6.2	58,273
26	0.80	7.2	7.2	25,848	3,601	22,247	0.02	6.2	58,368
27	0.82	7.5	7.5	28,233	3,734	24,499	0.02	6.6	60,067
28	0.84	7.5	7.5	28,290	3,737	24,553	0.02	6.6	60,108
29	0.86	7.5	7.5	28,427	3,746	24,681	0.02	6.6	60,209
30	0.88	7.5	7.5	28,511	3,754	24,757	0.02	6.6	60,279
31	0.90	7.5	7.5	28,533	3,755	24,777	0.02	6.6	60,295
32	0.92	7.5	7.5	28,798	3,770	25,028	0.02	6.6	60,463
33	0.94	7.5	7.5	28,810	3,771	25,039	0.02	6.6	60,473
34	0.96	7.6	7.6	28,894	3,776	25,118	0.02	6.7	60,522
35	0.98	7.6	7.6	29,081	3,783	25,298	0.02	6.7	60,622
36	1.00	7.6	7.6	29,144	3,787	25,357	0.02	6.7	60,660

Figure 6-6: Onedin Revenue Factor Scenarios

The cutbacks are coincident in the north with the only real differences in the south. There is very little variation difference between shells 30 and 36 however Shell 17 was selected as it represented the more conservative approach for the Scoping Study.

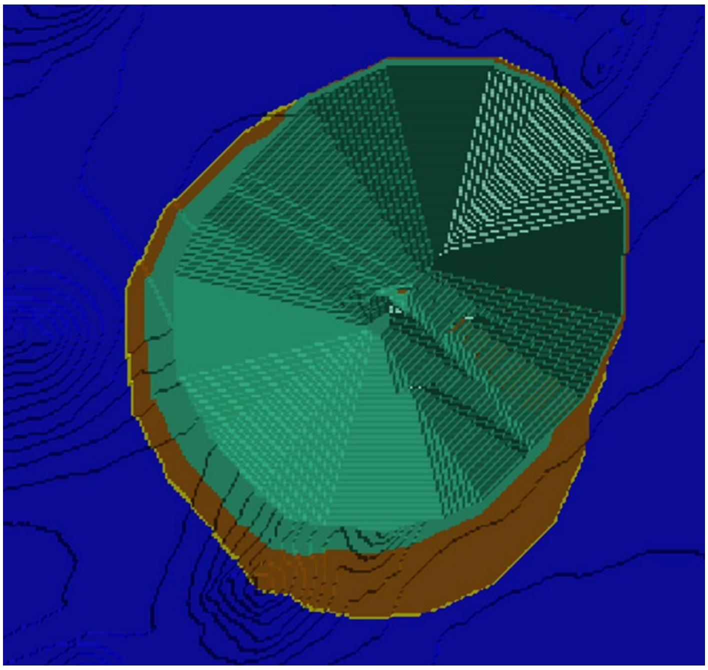


Figure 6-7: Plan View of Shell 17

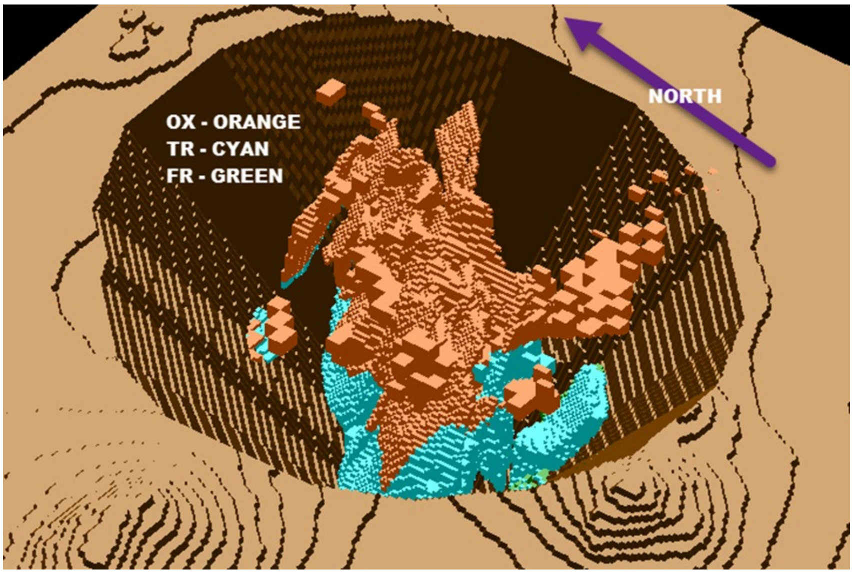


Figure 6-8: Shell 17 with the Reblocked Model

The rotated view of Onedin represents mostly oxide and transitional ore. There is some fresh ore at depth. Ore is from the surface and the base of the pit is at 260mRL which is 180m from the surface. With ramps and minimum mining widths the base would likely be at 250mRL.

A block model report of the quantities in this pit are 4.09Mt of ore with a grade of 1.56% Cu/eq and 17.89Mt of waste material.

6.1.4 MT ANGELO NORTH

The Resource model for Mount Angelo (2021 December quarterly report CAZ:ASX) was reported at a cutoff of 0.4% Cu. Resource block dimensions are 10m x 5m x 2.5m with sub-blocking to 2.5m x 1.25m x 1.25m. Cu, associated Zn and Ag were reported.

Analysis of Mount Angelo North was undertaken using a conservative copper price of $10,740 (Run 1), and $13,089 (Run 2) to better reflect the current metal price. The revenue factor 1 (Run 1) shell was considered appropriate at this early Scoping Study level as indicated below:

Table 6-1: Mt Angelo North Pit Shell Optimizations (Run 1)

Pit	Total Tonnes	Waste Tonnes	Ore Tonnes to Mill	Grade Cu %	Grade Ag ppm	Grade Zn ppm	Contained Cu Metal tonnes	Recovered Cu Metal tonnes	Recovered Ag Metal oz	Recovered Zn Metal tonnes	Revenue Factor
1	250,072	176,288	73,784	1.9328	14.3	376	1,426	1,116	22,611	19	0.26
2	356,110	246,597	109,513	1.7915	13.7	368	1,962	1,555	32,606	27	0.35
3	505,695	349,699	155,996	1.5990	14.3	369	2,494	2,000	49,401	40	0.44
4	1,916,833	1,479,527	437,306	1.3466	14.1	370	5,889	4,982	145,084	120	0.53
5	2,244,252	1,739,274	504,978	1.3000	13.3	366	6,565	5,581	158,793	137	0.63
6	2,550,192	1,979,393	570,799	1.2512	12.4	362	7,142	6,090	168,646	154	0.72
7	2,746,136	2,138,677	607,459	1.2243	12.1	359	7,437	6,354	174,311	164	0.81
8	2,947,178	2,301,427	645,751	1.1946	11.6	359	7,714	6,599	179,171	174	0.91
9	3,243,665	2,543,912	699,753	1.1539	11.1	358	8,075	6,918	185,432	189	1.00
10	3,427,383	2,699,991	727,392	1.1344	10.9	357	8,252	7,077	188,966	196	1.09
11	3,673,377	2,915,361	758,016	1.1145	10.6	356	8,448	7,254	192,967	204	1.19
12	4,326,444	3,484,484	841,960	1.0626	10.1	356	8,946	7,689	203,856	227	1.28
13	4,573,197	3,703,126	870,071	1.0459	9.9	355	9,100	7,827	207,345	235	1.37
14	4,891,830	3,988,443	903,387	1.0278	9.8	354	9,285	7,995	212,102	243	1.47
15	5,378,189	4,430,057	948,132	1.0048	9.6	353	9,527	8,206	219,218	255	1.56
16	5,926,438	4,932,711	993,727	0.9832	9.4	352	9,771	8,424	226,444	267	1.65

The rotated view below shows mostly oxide (yellow) and transitional (blue) ore, with some fresh (red) ore.

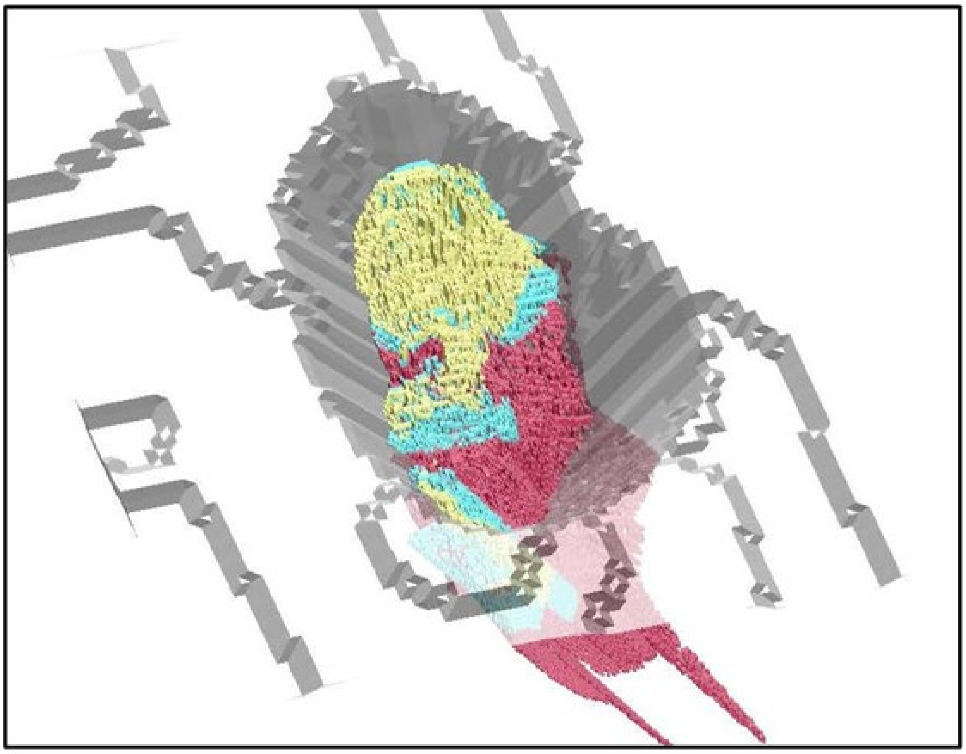


Figure 6-9: Mt Angelo North Pit Shell Pit 9

6.1.5 BOMMIE

The Resource model for Bommie is copper only (24 November 2022 Announcement CAZ:ASX) and was reported at a cutoff of 0.2% Cu. Resource block dimensions are 10m x 10m x 5m with no sub-blocking.

Analysis of Bommie was undertaken using a conservative copper price of $10,740 (Run 1, 2, 3), and $13,089 (Run 4) to better reflect the current metal price. Multiple shells were considered and the revenue factor 1.0 (Run 3) shell #7 was considered most appropriate at this early Scoping Study level as indicated below.

It should be noted that at this early stage blending of both low and high grade ores have not been considered, and the selected pit shells have not been selected to maximize profits, this would be considered in the next stages of feasibility studies.

Table 6-2: Bommie Pit Shell Optimizations (Run 3).

Pit	Tonnes Tonnes	Waste Tonnes	Ore Tonnes to Mill	Grade Cu %	Contained Cu Metal tonnes	Recovered Cu Metal tonnes	Revenue Factor
1	101,350	46,285	55,065	1.7130	943	765	0.35
2	155,050	84,960	70,090	1.6656	1,167	961	0.44
3	180,575	103,635	76,940	1.6281	1,253	1,036	0.63
4	198,125	111,635	86,490	1.5331	1,326	1,099	0.72
5	239,725	140,529	99,196	1.4300	1,418	1,178	0.81
6	898,025	658,870	239,155	1.0187	2,436	2,070	0.91
7	1,224,625	897,398	327,227	0.9195	3,009	2,544	1.00
8	1,482,900	1,079,758	403,142	0.8534	3,440	2,902	1.09
9	1,749,975	1,291,008	458,967	0.8159	3,745	3,161	1.19
10	2,421,125	1,884,108	537,017	0.7723	4,147	3,513	1.28
11	13,639,025	11,734,833	1,904,192	0.5677	10,810	9,489	1.37
12	20,324,675	17,764,608	2,560,067	0.5479	14,028	12,377	1.47
13	27,383,475	24,516,783	2,866,692	0.5416	15,527	13,719	1.56
14	34,779,300	31,649,101	3,130,199	0.5369	16,807	14,869	1.65
15	43,320,725	39,991,758	3,328,967	0.5329	17,740	15,719	1.74
16	55,656,650	52,171,469	3,485,181	0.5302	18,477	16,375	1.84

6.1.6 OPEN CUT MINING COSTS

The mining costs were derived from the Wave International database and based on other projects of a similar size, duration and location. All costs were for large scale mining production.

Drill and Blast

Oxide Ore $0.80/t

Transitional Ore $1.00/t

Fresh Ore $1.00/t

Load and Haul

$3.00 at the surface escalating $.030/t for every 20m vertical.

All other costs are accounted for in the overall OPEX model for Processing, Logistics and Administration

6.2 UNDERGROUND MINING

A high-level mining evaluation of the Sandiego project has been completed by AuKing Mining and its consultants to ascertain the viability of mining the orebody as an underground mine utilising long hole open stoping with cemented rock fill (CRF). All calculations are based on a contract miner being managed by the mine owner. A provision of AUD$2.0M has been accounted for mine owner capital to commence mining. A maximum production rate of 0.85Mtpa can be achieved utilising long hole open stoping with CRF. A portal at the bottom of the Sandiego open cut mine has been assumed as the entrance to the underground mine.

The resultant physicals are summarised in the Table 6-3 below.

Table 6-3: Underground Mining Physicals

Item	Quantity
Mined Ore Tonnes (Mt)	1.8 Mt
Copper Grade (%)	1.17 %
Cu Metal (t)	21,201 t
Zn Grade (%)	2.82%
Zn Metal (t)	50,979 t
Total Cost ($AUD)	$279 M
Total Revenue ($AUD)	$376 M
Total Profit ($AUD)	$97 M
Total Mine Life	3.5 years

Mining evaluation work is based on the following commodity prices and payable factors. For ease of evaluation, it is assumed the payable factors include metallurgical recoveries.

Table 6-4: Commodity Pricing, Metallurgical Recoveries and Payable Factors

Commodity	Price	Metallurgical Recovery	Payable Factor
Copper	AUD $10,740/t	Included in Payable factor	90%
Zinc	AUD $4,189/t	Included in Payable factor	80%

6.2.1 CUT OFF GRADE

Underground mining costs have been sourced from similar sized operations in Western Australia. The underground mining costs are summarised as follows:

Table 6-5: Underground Mining Costs

Item	Unit	Quantity
Admin	AUD$/t of ore	2.50
Lateral Development	AUD$/m	8,000
Vertical Development	AUD$/m	6,000
Drill and Blast	AUD$/m	2,700
Stope Bogging	AUD$/t of ore	14
Trucking	AUD$/t of ore	7.5
CRF	AUD$/t of ore	10.40
Overheads	AUD$/t of ore	25
Resource Definition	AUD$/t of ore	10.50
Processing	AUD/t of ore	40
Sustaining Capital	AUD/t of ore	10

It is assumed ore is hauled 1.0 km from the portal to the ROM and the cost of load and haul for waste development is included in the cost per development metre. Royalties have been included in the overhead costs for underground mining.

6.2.2 STOPE OPTIMIZATION

Deswik Stope Optimiser (SO) was used to generate a suite of stope shapes based on the Net Revenue per Tonne (NRPT).

The following key parameters were used:

- Minimum mining width = 2.5m
- Stope height = 25m
- Minimum footwall dip = 42°
- Stope width = 20m
- Stope strike = 20m
- Footwall and HW dilution = 0.5m

These parameters then generated Grade tonnage curves represented in Figure 6-11 and Figure 6-12

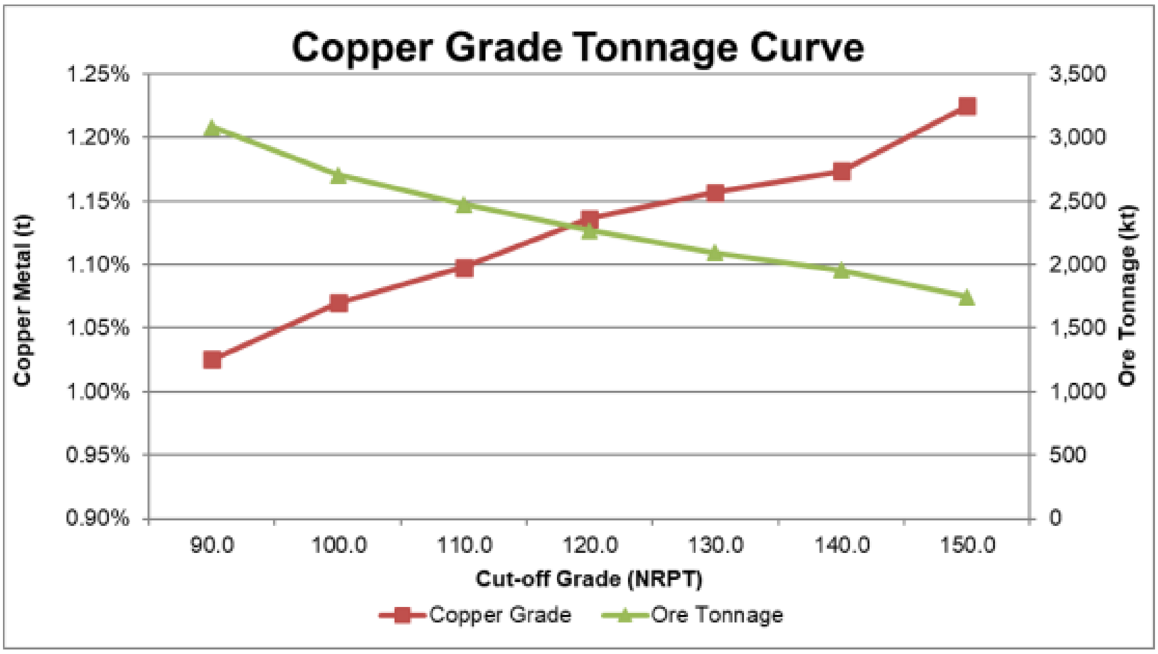


Figure 6-10: Copper Grade Tonnage Curve

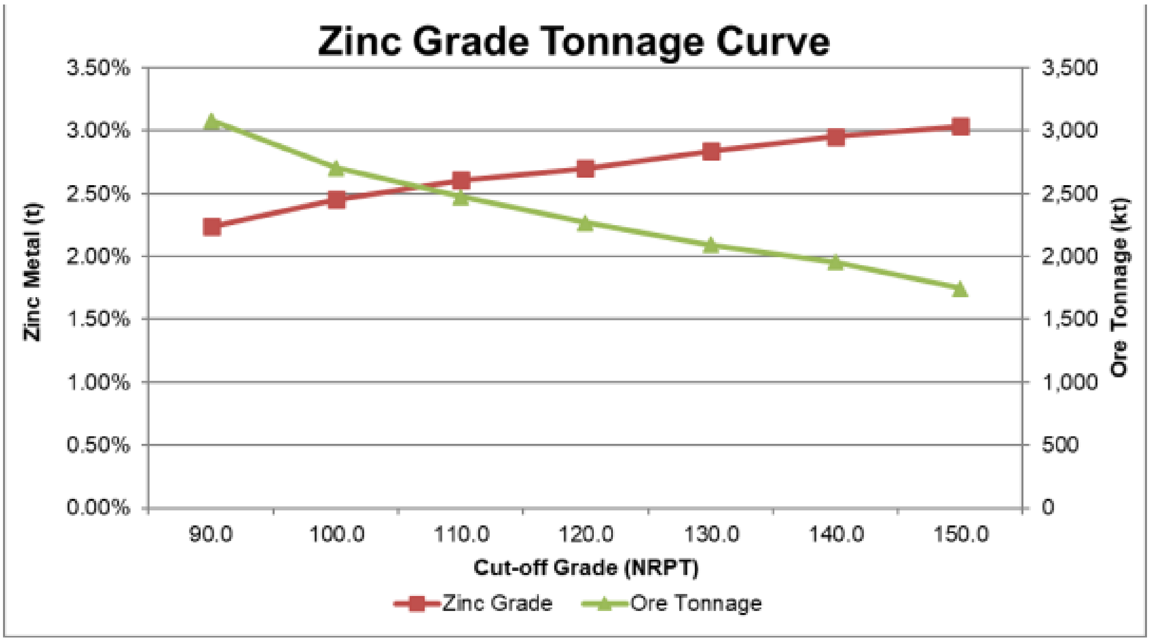


Figure 6-11: Zinc Grade Tonnage Curve

Using the Deswik.SO results and the costs above, a cash flow analysis can be run to check which NRPT cut-off grade produces the greatest cashflow and net present value (NPV).

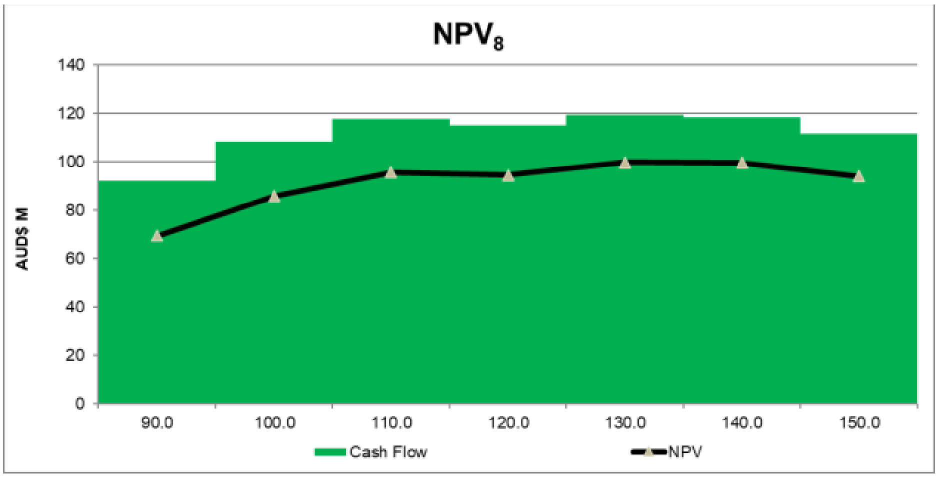


Figure 6-12: NPV Analysis

Using this method, it shows that the orebody is not too sensitive to changes in cut-off, giving similar NPV results for a range of cut-off grades between $110 - $140 NRPT. The breakeven cut-off grade (NRPT) that produces the highest cashflow and NPV is $130 NRPT, therefore this data was used for the mine design.

6.2.3 MINE DESIGN

A basic mine design was undertaken to ensure the calculated assumptions for development were reasonable and to undertake a level-by-level cash flow analysis to determine the vertical economic extent of the orebody. Stopes above the 130mRL were also removed as these stopes were determined to be in Domain 1 according to the geotechnical report provided titled "Anglo Australia Resources NL Koongie Park Project Sandiego Prospect Geotechnical Evaluation Draft Report February 2011" by Dempers & Seymour Pty Ltd Geotechnical and Mining Consultants. These areas have now been incorporated into the Open Cut mine design for the Sandiego Open cut mine with a portal at the 130RL.

This report outlines three (3) geotechnical domains and predicted unsupported and supported hydraulic radius values for each. The hydraulic radius for Domain 1 won't allow stoping. The Domain boundaries were determined visually using the cross sections in the model.

To ensure all development costs are captured the following development meters were used for each level.

Table 6-6: Development Meters

Item	Quantity
Decline per level	200
Access per level	80
Return airway horizontal per level	40
Return airway vertical per level	25
Escapeway horizontal per level	20
Escapeway vertical per level	25
Internal Stockpile	20
Sump	7
Workshop/Pump station Allowance	5

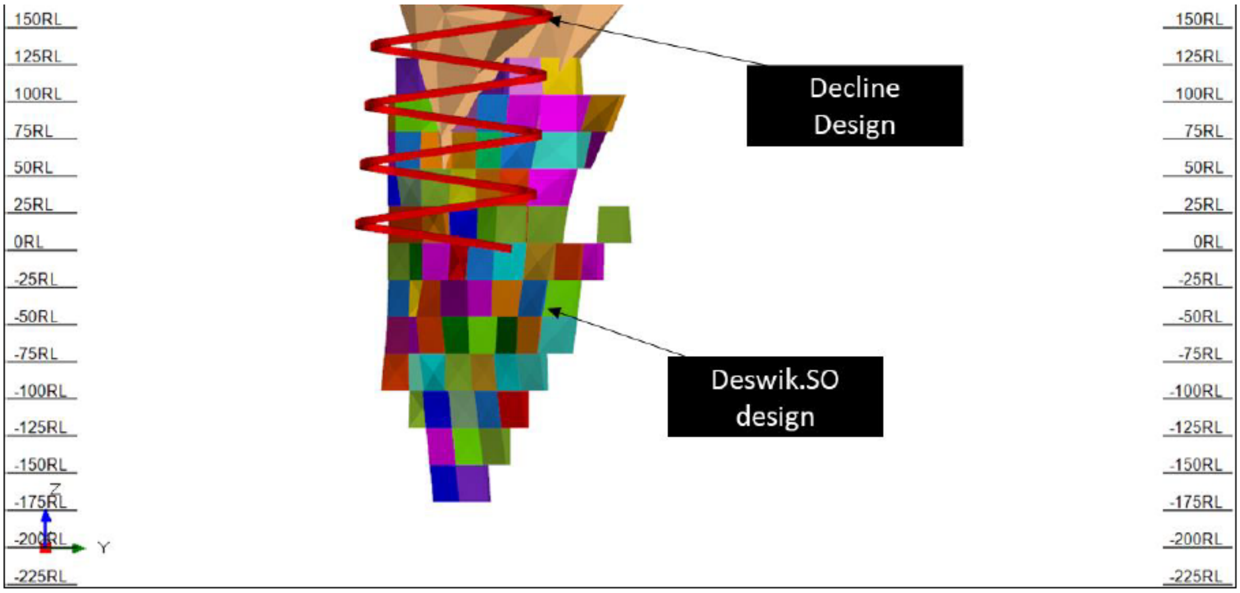


Figure 6-13: Underground Design looking from East

Rib pillars are placed at the top of each mining block where CRF cannot be placed due to having no top access. Rib Pillars are placed on the 105, 5, and -95 levels. This is shown below:

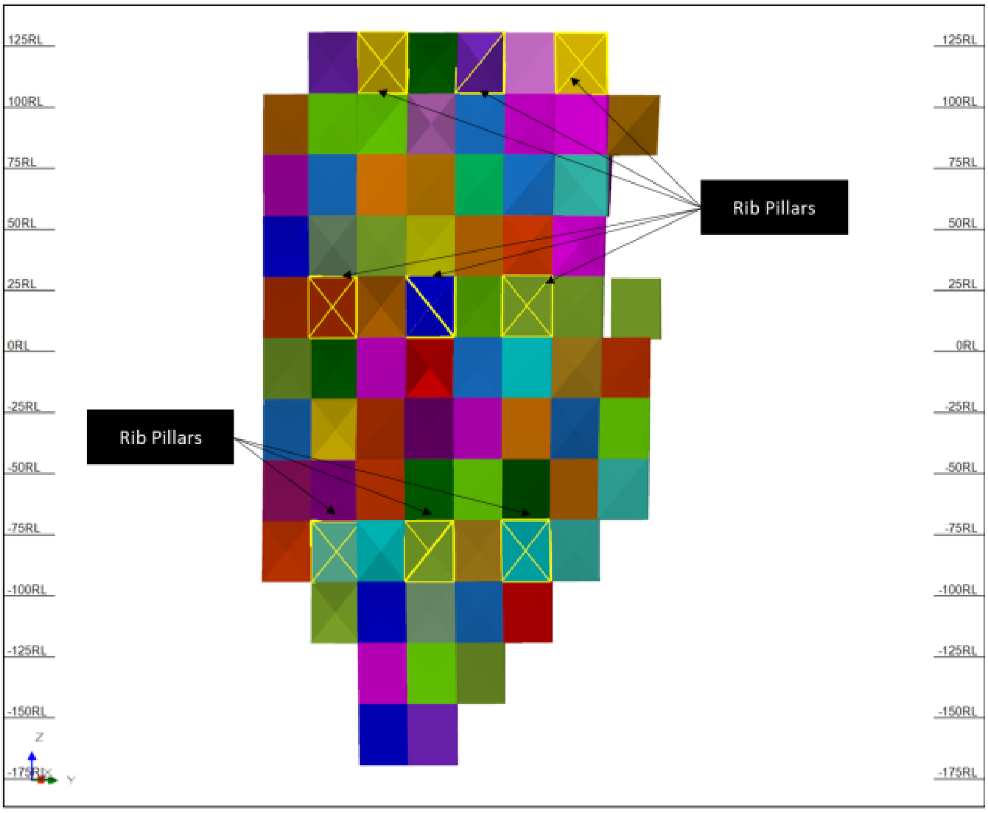


Figure 6-14: Rib Pillar Selection looking from East

Table 6-7: Underground Level by Level Analysis

Level	Mined Ore Tonnes	Mined Copper Grade (%)	Mined Zinc Grade (%)	Total Revenue ($)	Total Costs ($)	Profit ($)
105	78,442	1.05%	3.02%	$15,930,435	$12,031,928	$3,898,508
80	243,404	1.65%	1.33%	$49,715,774	$32,675,722	$17,040,052
55	230,680	1.44%	1.64%	$44,809,525	$30,590,181	$14,219,344
30	191,416	1.38%	2.23%	$39,763,755	$25,900,595	$13,863,160
5	132,581	1.47%	2.12%	$28,290,032	$18,797,427	$9,492,605
-20	232,620	0.97%	2.92%	$44,651,369	$30,909,681	$13,741,687
-45	257,794	0.87%	3.71%	$53,773,423	$34,056,829	$19,716,594
-70	225,068	0.88%	4.00%	$49,191,108	$30,209,314	$18,981,793
-95	84,188	0.73%	3.80%	$16,688,547	$12,804,176	$3,884,371
-120	86,891	0.95%	4.25%	$20,374,660	$13,277,367	$7,097,293
-145	47,826	1.09%	4.71%	$12,567,075	$8,470,988	$4,096,087
-170	21,990	1.05%	3.79%	$5,023,446	$5,211,934	-$188,488

6.2.4 PRODUCTION RATE

The average stope size for Sandiego is ~20,000 t.

Using the average stope size and assumptions for activity rates as outlined in the table below, a production rate of ~2,600 tpd or 860 ktpa is calculated.

Table 6-8: Production Rate Based on Inventory

Activity	Unit	Value
Average Stope size	tonnes	20,000
Production Drill factor	Time (days)	7.00
Production Drilling time	tpdm	12.70
Charge and Fire	Time (days)	6.0
Bogging	Time (days)	14.29
CRF Prep	Time (days)	3.0
CRF	Time (days)	13.66
CRF Cure	Time (days)	2.0
Total Cycle time	Time (days)	61.15
Average level size	tonnes	195,000
Production Rate (per day)	t ore	2,616
Production Rate (per year)	t ore	860,000

6.2.5 UNDERGROUND SCHEDULE

Table 6-9: Mining Schedule by Year

Schedule	Y1	Y2	Y3	TOTAL
Ore Tonnes	583,403	859,591	412,917	**1,810,911**
Copper Grade (%)	1.48%	1.11%	0.89%	**1.17%**
Zinc Grade (%)	1.70%	2.90%	4.09%	**2.82%**
Copper Metal (t)	7,969	9,569	3,663	**21,201**
Zinc Metal (t)	9,159	24,923	16,898	**50,979**
Vertical Rate of Advance	110	109	56	**275**
Years of Operation	1.0	1.0	0.5	**2.5**

Production rate reaches 860ktpa and the schedule mines 21kt of copper and 51kt of zinc. The mine life is 3.5 years and the portal will be established from the pit. 94 stopes are turned over with 43 being the maximum in one year.

7 METALLURGICAL TESTWORK

7.1 HISTORICAL TESTWORK

Metallurgical testwork was conducted by AAR as part of its feasibility study activities between 2008 and 2011 on a range of Sandiego and Onedin ores. The results of that testwork demonstrated that fresh copper and zinc lodes and the transitional zinc lodes at Sandiego (no tests were conducted on transitional copper material at Sandiego), can be concentrated at satisfactory metallurgical recoveries to produce commercial grade concentrates.

Cazaly Resources has also previously conducted metallurgical testwork on their Mt Angelo copper/zinc project. The testwork consisted of ore characterisation, comminution testing and a small flotation testwork program. The results of that testwork demonstrated that saleable grade copper and zinc concentrates could be produced at viable respective copper and zinc recoveries.

7.2 TESTWORK PROGRAMS

The flowsheet for the Koongie project has been designed with the philosophy of maximising the recovery of both copper and zinc from the ROM ore presented to the concentration plant as well as optimising the concentrate grade by the rejection of gangue impurities. Site water consumption has also been minimised through the selection of dewatering equipment and the recycling of water for re-use in the process plant. A high-level summary diagram has been included below in Figure 21.

7.2.1 STAGE 1 BENCHSCALE TESTWORK PROGRAM

The first stage of the bench scale testwork program consisted of two (2) sighter flotation tests to benchmark flotation behaviour. Flotation reagent vendors Solvay, Kings, Nouryon and Tecrich were consulted to establish preliminary flotation conditions and reagent dosing regimes.

The following notes are provided on the Stage 1 Bench scale Testwork Program:

1. A baseline grind of 75µm would be used.
2. Copper flotation is to occur first, followed by zinc flotation.
3. For flotation of copper ore, sphalerite and pyrite will need to be depressed by adding lime during the grind and raising the pH. If lime alone is insufficient, higher pH's should be tested along with SMBS and/or cyanides as depressants.
4. Selection and dosing of collector, modifier and frothers were established for copper flotation.
5. For flotation of zinc ore, sphalerite will need to be activated with copper sulphate.
6. Talc will need to be removed by a pre-float step.

7.2.2 ADDITIONAL BENCHSCALE TESTWORK PROGRAM

AuKing has conducted a series of small-scale tests on the oxide and transitional ores at the Onedin deposit to assess the potential application of the AmmLeach® ammonia-leaching process. This testwork program, which has been registered with the Commonwealth Government's R&D Incentive program is seeking to assess the potential to establish an alternative processing methodology for these Onedin ores that produces high recoveries. A significant amount of further testwork is planned here, based around a proposed pre-feasibility study to be managed by Perth-based Simulus Group.

In the meantime, with the addition of a Sulphidisation plant into the proposed Scoping Study metallurgical process (especially for the semi-weathered or oxide materials), a base-case processing methodology has been established and is considered appropriate for this Study. It remains to be seen whether the recoveries at Onedin utilising the AmmLeach® process can be demonstrated to exceed those expected to be achieved utilising the flotation method.

7.3 CONCLUSIONS

From the review of testwork programs the following conclusions can be made:

1. The best performing copper flotation regime was established using lime, cyanide, zinc sulphate and SMBS as zinc depressant.
2. Further testwork is required to:
    a. Further suppress zinc in the copper float
    b. Optimize the talc removal in the pre-float.
    c. Optimal grind size
    d. Baseline zinc flotation conditions
    e. Performance of cleaning flotation stages
    f. Establishment of overall circuit grade and performance through modelling and locked cycle testwork

8 MINERALS PROCESSING

8.1 GENERAL

The flowsheet has been designed to apply the Sulphidisation process to the oxide and transitional ores to improve the flotation process and to prioritise the copper flotation process, prior to zinc flotation. Thickeners and Filters have been added to both streams in the flowsheet to uphold efficient water use in the design and minimise copper and zinc quantities for shipment. Bagging facilities have been allowed for both streams for suitably bagging the copper and zinc products for containerised dispatch. A high-level summary diagram has been included below to display the proposed metallurgical processing flowsheet.

8.2 DESIGN CRITERIA

High level process design criteria, based on the Engineer's industry knowledge of Copper Zinc Flotation plants of similar size, has been used during the Study. The key, high level process criteria, that have driven the block flow diagram, are summarised in Table 8-1 below:

Table 8-1: Design Criteria

ITEM	UNITS	VALUE
PRODUCTION		
Annual Tonnes Processed	t	750,000
Annual Production – Cu Concentrate	t	118,809
Annual Production – Zn Concentrate	t	47,321
GRADES		
ROM grade	% Cu	1.43
	% Zn	3.89
Concentrate grade	% Cu	24
	% Zn	12.6
RECOVERIES		
Total recovery - Cu	%	87.0%
Total recovery – Zn	%	77.0%
OPERATIONS		
Operating days per year	days	365
Shifts per day	shifts	2
Hours per shift	h	12
Operational availability	%	91.3%
Operating hours per year	h	8000
Feed	t/a	750,000
Capacity	tph	93.8

8.3 PROCESS DESCRIPTION

The overall process flowsheet is summarised in the block flow diagram below in Figure 8-1: .

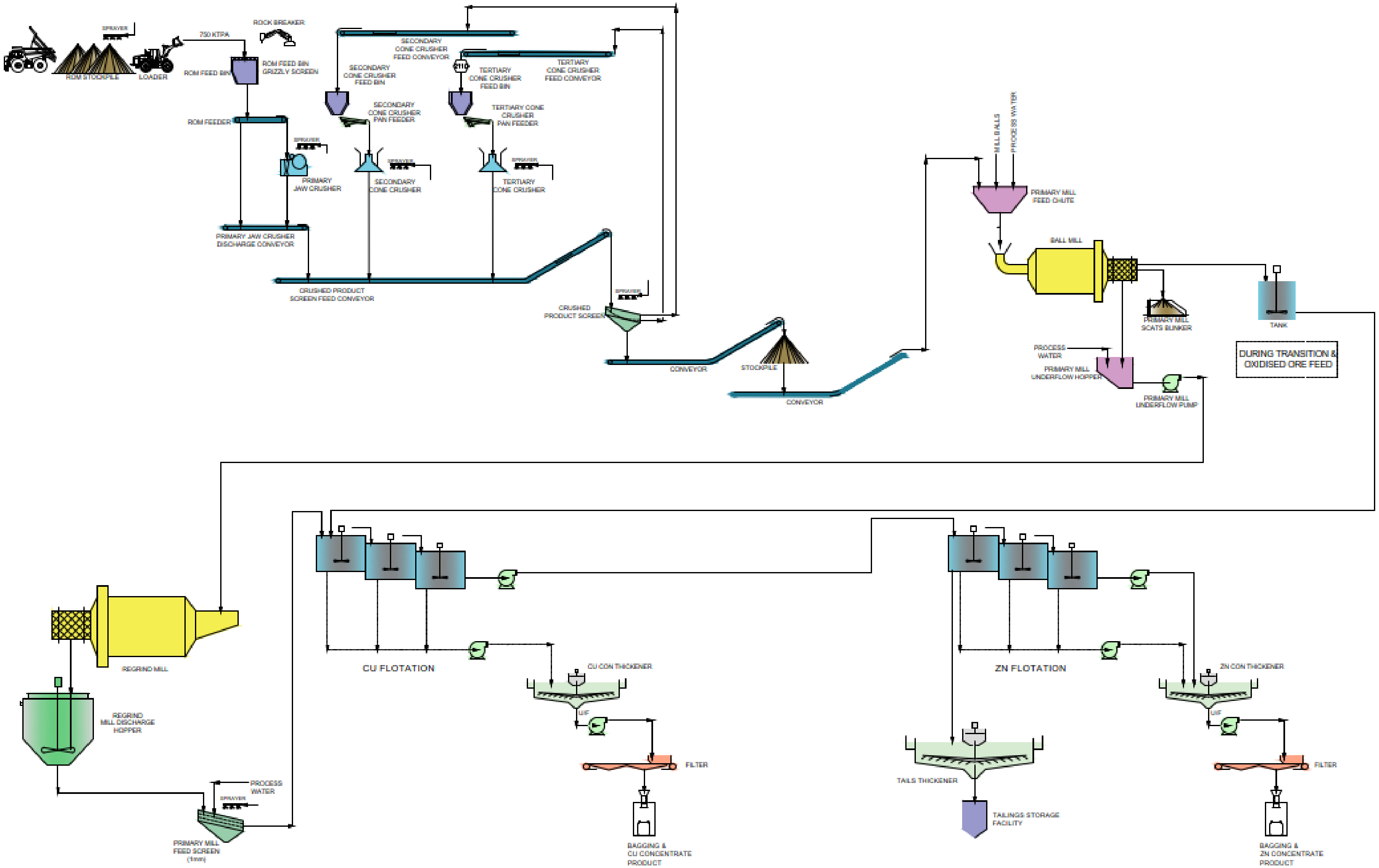


Figure 8-1: Proposed Koongie Park Processing Flowsheet Block Flow Diagram

8.3.1 COMMINUTION

The preliminary proposed flowsheet for the Koongie Cu-Zn project consists of three (3) stages of crushing/screening followed by one stage of ball-milling, which is typical for base metals flowsheets. The comminution circuit will be developed further in more advanced future engineering study phases.

8.3.1.1 Crushing/Screening

The proposed crushing circuit for the Koongie flowsheet consists of three (3) stages of crushing: a primary jaw crusher, secondary cone crusher and a final tertiary cone crusher.

Raw Ore will be delivered to the primary crusher from the ROM into a bin, from where it will be fed to the primary jaw crusher by a vibrating grizzly feeder.

Crushed ore from the tertiary crusher will be stacked and stockpiled on a crushed ore loadout.

8.3.1.2 Milling

Ore will be reclaimed from the crushed ore loadout and fed through a single stage ball mill. Oversize material from the ball mill will be re-ground in a vortex mill and recycled to ball mill feed.

8.3.2 FLOTATION

8.3.2.1 Sulphidisation

As the initial mined ore is tarnished/semi-weathered or oxide material, it will be less responsive to separation by flotation. An extra conditioning step, Sulphidisation, will need to be undertaken prior to conditioning with flotation reagents while processing this material. Milled ore will need to be activated with either Na_2S or NaHS modifier, which will allow more efficient adsorption of collector reagents, rendering the targeted ore hydrophobic, thereby facilitating separation by flotation.

As mined ore transitions from weathered/oxide material to sulphidic, it will become more naturally responsive to collector reagents and the need for Sulphidisation will decrease and eventually be unnecessary.

The process conditions of the Sulphidisation step, such as selection of modifier, pH, temperature, residence time etc. will be confirmed in future testwork programs. Recovery based on the process has been assumed in the Scoping Study and further testwork will be necessary to quantify the assumed recoveries.

Sulphidisation is widely used in the mining industry to treat oxidized and transitional ore before hard rock mining is used over the life of the mine. Examples of previous and current plants are the following.

- Golden Grove when owned by MMG in Western Australia.
- White Dam owned by Aeris Resources in South Australia
- Kansanshi copper mine owned by First Quantum in Zambia.

8.3.2.2 Copper Flotation

The proposed preliminary copper flotation circuit will consist of a conditioning tank, 1 stage of rougher flotation, 2 stages of cleaner flotation and 2 stages of scavenger flotation.

Milled ore from either the ball mill or from the Sulphidisation stage (in the case of treating oxidised ore) will be diluted, treated with reagents and brought up to the optimal temperature prior to flotation in the conditioning tank. Collector, frothers and depressants will be dosed at the optimum rate, prior to pumping to rougher flotation.

Concentrate from the rougher flotation stage will be further processed into two (2) cleaner flotation stages in series, while tailings from the rougher flotation will be processed in two (2) scavenger flotation stages in series.

Tailings from each of the flotation stages are combined and pumped to the copper concentrate dewatering circuit, while the tailings are combined and pumped to the zinc flotation conditioning tank.

Further flowsheet development and optimisation will occur as a result of future testwork programs.

8.3.2.3 Zinc Flotation

The proposed preliminary zinc flotation circuit will consist of conditioning tank, one (1) stage of rougher flotation, two (2) stages of cleaner flotation and two (2) stages of scavenger flotation.

Tailings from copper flotation will be treated with reagents and brought up to the optimal temperature prior to flotation in the conditioning tank. Collector, frother and depressants will be dosed at the optimum rate, prior to pumping to rougher flotation.

Concentrate from the rougher flotation stage will be further processed into two (2) cleaner flotation stages in series, while tailings from the rougher flotation will be processed in two (2) scavenger flotation stages in series.

Tailings from each of the flotation stages are combined and pumped to the copper concentrate dewatering circuit, while the tailings are combined and pumped to the tailings thickener.

Further flowsheet development and optimisation will occur as a result of future testwork programs.

8.3.3 PRODUCT HANDLING

Concentrate from the copper flotation circuit will be dewatered by thickening and then filtering in a filter press. Filter cake will then be bagged ready for transport as copper concentrate.

Likewise concentrate from the zinc flotation circuit will be dewatered by thickening then filtering via a filter press. Filter cake will then be bagged ready for transport as zinc concentrate.

8.3.4 REAGENTS

The selection of reagents and the dosing regime has been based on both established industry practice and results from the preliminary metallurgical testwork program. The selection of reagents and dosing regimens will be further optimized for the Koongie flowsheet in future metallurgical testwork programs.

8.3.4.1 Lime

Lime is used as a pH modifier and will be added in the milling stage of the Koongie flowsheet. Lime acts to depress or discourage the flotation of pyrite impurities during flotation.

8.3.4.2 Sodium Metabisulphite (SMBS)

Sodium Metabisulphite (SMBS) is used in the copper flotation stage of the Koongie flowsheet as a zinc depressant – discouraging the flotation of and reporting of zinc to the copper concentrate.

8.3.4.3 Sulphidisation Agent

Sulphation modifier – either sodium sulphide (Na_2S) or Sodium Hydrosulphide (NaSH) will be used to treat transition oxide material, which is less responsive to collector reagent and separation by flotation. The selection of the specific Sulphidisation agent and the dosing regime will be established in future metallurgical testwork programs.

8.3.4.4 Sodium Cyanide

Sodium Cyanide (NaCN) will be used in the copper flotation stage of the Koongie flowsheet as a zinc depressant – discouraging the flotation of and reporting of zinc to the copper concentrate.

8.3.4.5 Zinc Sulphate

Zinc Sulphate ($ZnSO_4$) will be used in the copper flotation stage of the Koongie flowsheet as a zinc depressant – discouraging the flotation of and reporting of zinc to the copper concentrate.

8.3.4.6 Aerophine 3418A

Aerophine 3418A will be used in the copper flotation stage of the Koongie flowsheet as a flotation collector, which renders the target copper bearing minerals as hydrophobic, allowing separation.

8.3.4.7 DSF 004A

DSF 004A will be used in the copper flotation stage of the Koongie flowsheet as a frother – encouraging bubble formation.

8.3.4.8 Copper Sulphate

Copper Sulphate ($CuSO_4$) will be used in the zinc flotation stage of the Koongie flowsheet as a zinc activator – modifying the surface of the target zinc bearing minerals to be more responsive to the collector, thereby allowing greater selectivity and separation by flotation.

8.3.4.9 Xanthate

Xanthates act as flotation collectors – rendering the targeted minerals hydrophobic, allowing separation by flotation. Xanthate will be used in the zinc flotation stages of the Koongie flowsheet. The selection of the specific xanthate and dosing regime will be established in future metallurgical testwork programs.

8.3.5 TAILINGS DISPOSAL AND WASTE HANDLING

The design objectives of the Tailings Storage Facility (TSF) are to:

- Maximise the storage of tailings within a restricted footprint area. At this stage it is the intention that above ground surface tailings storage capacity is enough to cater for the LOM. The option of moving to tailings storage into mined out pits is being considered as an alternative, but those studies are not sufficiently advanced to present this option.
- Provide adequate storage/stack stability. Studies will need to be conducted to examine stack geometry, various slope reinforcement methods and stack drainage.
- Reduce the environmental impact of the stacked tailings.

Tailings from flotation will be run through a thickener and then stored in a TSF. Tailings after thickening will have a moisture content of 55% with an output of 588,601m^3 per annum. Wastewater from thickening and filtration will be treated as process water or report to the Reverse Osmosis plant and stored in a tank before being pumped for recycling through the processing plant. A summary of the waste streams are included in Table 8-2.

Table 8-2: Waste Streams

PROCESS STAGE	WASTE GENERATED	NATURE
Mining	Mining waste	Benign (Will Require Acid Rock Drainage assessment)
Milling, Cycloning, Screening	Coarse rejects	Benign; dewatered
Flotation	Gangue minerals	Benign; stored
Filtration	Water	Benign; recycled

9 INFRASTRUCTURE AND LOGISTICS

9.1 SITE LAYOUT

The site should consist of:

1. ROM, with area adequate to stockpile at least 3 days mine production to cover the mine shift and any plant shutdowns. The ROM orientation should be North-South to ensure safe operation when dumping.
2. Sufficient area allowed for blending stockpiles to minimise feed grade variation through the plant,
3. Relationship between final product process and packaging will need to be close to minimise handling.
4. Clear access will need to be maintained for semi or B-doubles to deliver reagents to areas on the process plant,
5. A power supply substation located in such a manner as to minimise distance to major power demand elements. If solar is considered, prevailing winds must be considered to reduce dust from ROM.

Figure 9-1 provides proposed site layout with proposed locations for processing plant and supply water dam. While overall locations will be similar, exact locations and layout of plant / buildings will be subjected to further review and changes as study phases progress.

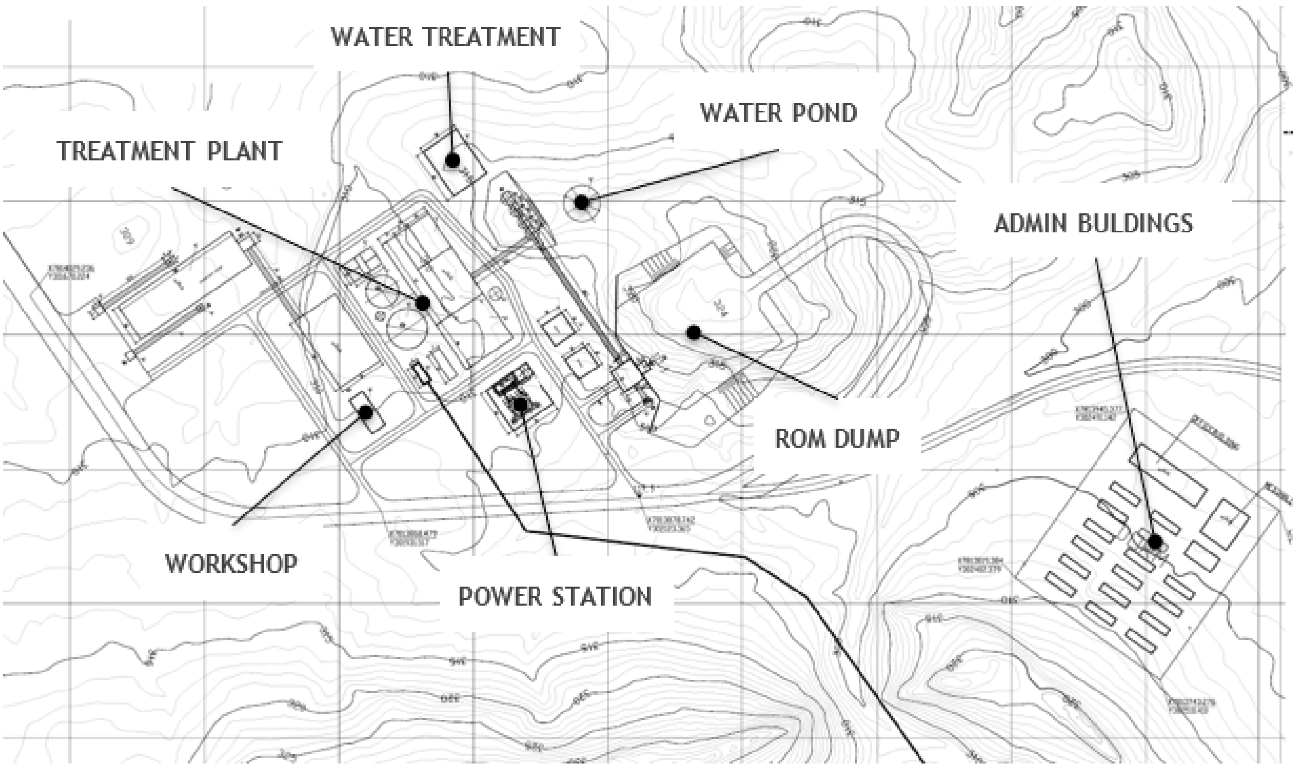


Figure 9-1: Site Layout

9.2 POWER SUPPLY

A diesel-powered generating station has been costed into the plant estimates for construction at the proposed Sandiego mining and processing site.

Whilst this Study has assumed diesel as the primary source of power generation the potential does exist for gas fired and/or solar power generation for Koongie Park. Horizon Power is the primary provider of energy solutions in the region and could also consider transmission of power from an extended Halls Creek power station. A transmission line already exists from Halls Creek to Koongie Park Station which is adjacent to Onedin. A further power line extension of 7km would be required to transmit power to Sandiego. The capacity of the current transmission line to Koongie Park is not known and the cost or potential of any upgrade is also not yet known. It is recommended that options for gas fired and/or solar power be investigated fully in future Studies.

9.3 WATER SUPPLY

A preliminary investigation only of the availability of water for the proposed Sandiego operation has been undertaken. Water has been intersected in a nearby bore hole which was pumped at a rate of 6500 l/h for use in the drilling programme. This water result confirmed that a mining and processing operation at Sandiego mine should not be adversely affected by water inflows. A professional hydrological assessment should be undertaken in the Feasibility Study stage. The reasonable availability of water will be critical for mine development at Sandiego. It is anticipated that satisfactory quantities of water will be found for the project in view of the reasonable availability of groundwater in the region.

There will be several requirements in terms of volume and quality for water including:

1. Dust suppression
2. Process water
3. Analysis of available water for chemical content and volumes will be required for flotation optimization
4. Operations water for drinking, safety showers, toilets etc.
5. Firefighting

9.4 WATER TREATMENT

As supply water must first be softened to maximise flotation recovery, the utilisation of reverse osmosis to remove hardness from process water will be applicable.

9.5 ROADS

The Great Northern Highway (National Highway One) which is the main bitumen highway around Australia, connects Halls Creek to Koongie Park, approximately 25kms to the south-west. There are existing roads and tracks that link a proposed central processing facility at Sandiego to the nearby deposits and these roads will require upgrade to handle the flow of heavy vehicles. Overall trucking costs will be reasonably competitive because road conditions are good and distances no more than 10km to any point.

9.6 SUPPLY CHAIN AND PRODUCT TRANSPORT

The cost of concentrate transport will be a major part of the total cost structure of the project. The Great Northern Highway connects Halls Creek and Koongie Park with Wyndham, which is the proposed port for export of the zinc and copper concentrates. Trucking costs will be reasonably competitive because road conditions are good but the 400 km distance will present a significant operating cost. A trucking rate of A$0.1/t per km, equivalent to A$40 / wet tonne of concentrate for the 400km from Koongie Park to Wyndham, has been used in cost estimates and cashflow analysis.

The port of Wyndham has long been used as a concentrate export port. Whilst the port is not a deep-water port and has limits on the size of ships which it can accommodate it is anticipated that shipment of Koongie Park concentrates through Wyndham would closely emulate the current practice for the shipment of nickel concentrates through the port (via the Savannah Nickel Project). Concentrates would be trucked to the port and stored in a shed prior to loading. Copper and Zinc concentrates would be handled separately. The concentrate would be skip loaded onto ships in shipments of 5,000 to 10,000 tonnes.

9.7 NON-PROCESS BUILDINGS AND FACILITIES

The key mine infrastructure area and major earth works are to be completed by a contractor. Key specification of the required facilities will be placed with a contractor as part of the delivery process. Contractor requirements for inclusion in construction and site establishment included:

1. Product stockpile areas clearing and preparation.
2. Workshop clearing, building and appropriate tooling.
3. Laydown area clearing and preparation including spillage containment.
4. Fuel Farm clearing and setup inclusive of bunding and drainage to environmental requirement; and,
5. Administration buildings including offices, communications room, meeting and training rooms, First Aid facility.

9.8 CAMP ACCOMMODATION

Given the proximity of the project area to Halls Creek and to minimise daily commuting times, it is likely that a dedicated accommodation camp will be operated in the township, in much the same way as has been the case with Nicolson's mine workers for several years.

AuKing already has an office facility in the Halls Creek township and on-site administration facilities will be located at the processing facility.

The required camp facilities will be quoted for full installation and outright purchase from contracting parties or suppliers direct. All Buildings priced supplied flat packed for transport and assembled on site. A contractor supply and construct was selected as part of this study, with camp specifications as follows:

1. Four room ensuite bunkhouse.
2. Kitchen and Dining Hall.
3. 1 x Cold room and dry storage.
4. 12m x 9m Recreation Room fitted with pool table and lounge.
5. 12m x 6m Mess area with outside deck.
6. 6m x 3m Linen Store.
7. 6m x 3m Laundry.
8. 6m x 3m Male/Female communal toilet.

9. Water tanks (50 000 litres) pumps, water supply ring main.
10. Sewage Treatment Plant allowing 250 litres per day per person; and,
11. 2 x Generators supply and back up.

Site administration facilities will be located at the processing facility.

9.9 TAILINGS

The tailings stream from the flotation plant will be pumped, via a standard sampling system, to a tailings handling facility, where process water will be recovered. In order to accommodate the planned production rate from the process plant, 750,000 tpa of ROM ore will be treated yielding approximately 13,300 tonnes of concentrates. Water from the tailings transfer facility will be recovered to the return water dam and pumped back to the process water storage tanks. The dam will be designed so as to minimise evaporation loses and return water to the plant as rapidly as possible.

The environmental aspects of a proposed tailings dam will be considered as part of future studies. However, it is anticipated that permeability testing of the proposed dam site will be required to predict any potential acid drainage problems. The location of the tailings dam will be considered in future studies with the intention of containing any water and contaminant run-off from the project.

An allowance of $1m has been made for tailings dam capital in the cashflow analysis of this Study. Operating cost estimates of $8000 per month are contained within the Treatment Plant operating cost estimates.

9.10 COMMUNICATION SYSTEMS

The Information Systems Implementation will be managed by contractor who will provide a single point of accountability through the provision of overarching responsibility and delivery of the Information Systems in the office and on site at the Koongie Park Project.

As yet, the preferred technical solution to be implemented (i.e., hardware, software and infrastructure) has not yet been finalised. It is anticipated that specific software systems needed will be chosen during the procurement and implementation phase.

When the preferred technical solution is implemented, there will be enough scalability and resources available to introduce software systems fit for purpose.

The site Local Servers will be located in a dedicated air-conditioned server room located in the Site Office with security access by way of key held by the General Manager.

The following internal communication systems will be required:

1. Administrative telephone communication system
2. Dispatch communication system
3. Production TV monitoring system
4. Fire alarm system
5. Computer network system
6. Plant area communication network

10 ENVIRONMENT, SOCIAL, COMMUNITY AND PERMITTING

10.1 EPA AND DAWE ASSESSMENT

The Koongie Park Project will provide significant benefits to the people of the Halls Creek township and it is envisaged that environment and cultural considerations will not be limiting factors in the development of the project.

Auking intend to refer the Project to the WA Environmental Protection Authority (EPA) under Section 38 of the Environmental Protection Act 1986 (EP Act) and the Commonwealth Department of Agriculture, Water and Environment (DAWE) under the Environmental Protection and Biodiversity Conservation (EPBC) Act 1999.

Once this is lodged the EPA will confirm that the Project will be assessed under Part IV of the EP Act through a Public Environmental Review (PER) process with a public review period for the Environmental Review Document (ERD) of 8 weeks.

Subsequently DAWE will confirm the Project will be assessed under Section 75 of the EPBC Act as a controlled action and as an accredited assessment under the EP Act.

It has been assumed that the Project has several preliminary key environmental factors and a detailed assessment is required to determine the extent of the proposal's direct and indirect impacts and how the environmental issues could be managed. The EPA may determine that the Project has potential impact on flora, vegetation and terrestrial fauna from the clearing of mine footprint including the construction and operation of a mine and processing facility and Social Surroundings from impacts to heritage values.

In preparation for the above Auking intend to prepare an Environmental Scoping Document (ESD) which will be made available for the public feedback. Following the ESD, Auking is planning on completing the remaining required environmental surveys to address the preliminary environmental factors and preparing an ERD.

10.2 KEY ENVIROMENTAL FACTORS

Several studies were undertaken by AAR as part of its 2008 Pre-Feasibility Study activity including a comprehensive flora and fauna assessment. In general terms, the findings of those earlier studies included the following:

- It is very important to implement erosion control during the construction and operation of the proposed activity. If erosion control is inadequate, soil loss is likely to be higher (in the wet season), as erosion hazard will increase as the study area is changed from its natural (but degraded) condition.
- Although the area has been subject to disturbance through cattle, fire and exploration, overall, the vegetation condition was considered to be “Very Good” to “Excellent”, with other minor areas considered good-degraded.
- As part of the development of mining operations for the Project, native vegetation and fauna habitat within the project area will be disturbed. It is inevitable that there will be some localised loss of flora and fauna arising from clearing of the vegetation and construction activities for the mining operations. However, it was considered unlikely that the loss of species individuals associated with the direct mortalities and compromise of proximal habitat values would be sufficient to affect the overall conservation status of the survey area.
- There is the potential for environmental impact caused by:
  - Generation of Acid Rock Drainage (ARD); and
  - Depletion (drawdown) of groundwater resources.

In regard to ARD, the orebodies (and waste rock) are sulphidic and therefore have the potential when exposed to air and water to oxidise and generate ARD. AuKing will be required to undertake waste rock, ore and tailings geochemical characterisation. If there is a possibility of heap leaching ore, then this material also, will require characterisation studies.

As part of future study work, Auking intends to focus on the following preliminary key environmental factors.

- Flora and Vegetation.
- Terrestrial Environmental Quality.
- Terrestrial Fauna.
- Inland Waters.
- Air Quality; and
- Social Surroundings.

In addition to specific consideration of each environmental factor, the ERD will also provide a holistic assessment of environmental impacts, including an environmental values assessment, and drawing together the overall impact of the proposal on the environment and identifying any interactions amongst individual factors. Further, the ERD will address cumulative impacts, though given the location of the development envelope and the lack of existing and foreseeable contextual impacts, this is not anticipated to be a significant consideration for the environmental review.

Under the EPBC Act, as an accredited assessment, the relevant matters of national environmental significance (MNES) for this Project are:

1. National Heritage places (sections 15B and 15C).
2. Listed threatened species and communities (sections 18 and 18A).
3. Listed migratory species (sections 20 and 20A); and
4. Commonwealth marine areas (sections 23 and 24A).

The EPA (2020b) states that greenhouse gas (GHG) emissions from a Project will be assessed when they exceed 100,000 tonnes per annum of scope 1 emissions. Preliminary estimates for the Project are that that scope 1 GHG emissions will be less than 60,000 tonnes per annum. The ERD will address this consideration, setting out the calculations and methodology used for emissions estimates.

10.3 STAKEHOLDERS

As part of the ERD the Project will consult with stakeholders who are affected by or are interested in the Project. This includes decision-making authorities, other relevant State (and Commonwealth) government agencies and local government authorities, the local community and environmental non-government organisations. The Project will document the following in the ERD:

1. All identified stakeholders.
2. The stakeholder consultation undertaken and the outcomes, including decision-making authorities' specific regulatory approvals and any adjustments to the proposal as a result of consultation; and
3. Any future plans for consultation.

10.4 NATIVE TITLE AND ABORIGINAL HERITAGE

Mining leases 80/276 (covering Sandiego) and 80/277 (covering Onedin) are granted and lie within native title claims Koongie and Lamboo Elvire represented by the Kimberley Land Council. These mining leases are unencumbered by native title agreements as the tenements were granted prior to the Native Title Act 1993 (Commonwealth).

In 2007 an ethnographic survey of M80/276 and M80/277 was undertaken by the Kimberley Land Council to document Aboriginal heritage values. The report concluded that in the two areas surveyed (M80/276 and M80/277) the proposed work program (level of disturbance or intensity not greater than diamond and percussion drilling) does not represent a risk to sites of significance to Traditional Owners.

AAR conducted an archaeological site avoidance survey of the mining leases, M80/276 & M80/277, as part of its 2008 Pre-Feasibility Study. The objective of the survey was to determine the presence of any Aboriginal heritage sites so that no Aboriginal sites are disturbed when work commences on the mining leases. Transects were conducted in the survey areas in a systematic manner to determine the presence of archaeologically significant material. The results of the AAR survey were:

- Four (4) new Aboriginal archaeological sites KP1-KP4 were located on mining lease M80/276
- No sites were located on M80/277
- All four sites located on M80/276 are stone artefact scatters and occur in flat areas near water sources

As part of the future study activities Auking will carry out further studies to confirm the nature and extent of any archaeological sites that may require consideration as part of the proposed mining and processing activities.

Mining Lease 80/247 (covering Mt Angelo North) is a granted lease within the Koongie native title claim represented by the Kimberley land Council. This mining lease is unencumbered by native title agreements as the tenement was granted prior to the Native Title Act 1993 (Commonwealth).

Exploration Licence 80/5307 (covering Bommie) is granted and lies within native title claims Koongie and Lamboo Elvire represented by the Kimberley Land Council. An ethnographic survey was completed by the Kimberley Land Council in 2007 and 2022 to identify any potential sites of cultural heritage value within the footprint of then proposed Bommie drilling programs. The reports concluded that within the proposed drill work area there were no previously identified sites that would be impacted and no new sites of cultural heritage value were identified. In 2022 the drill area was cleared with the condition that Cultural Heritage Monitors be present during drill operations.

11 IMPLEMENTATION

11.1 INTRODUCTION

This project implementation strategy outlines the preliminary overall plan for implementation of the Project through further studies and delivery to operations. The Scoping study has been based around an engineering, procurement and construction management (EPCM) execution framework. A Work Breakdown Structure (WBS) has been developed for the Project, which is used to describe each element of the Project and provide a common platform for reporting.

11.2 KEY OBJECTIVES

The key project and business objectives are to:

1. Achieve zero harm to people and minimise harm to the environment in delivering the project.
2. Maintain the budget and approved schedule.
3. Provide optimal capital efficiency for functionality.
4. Maximise shareholder value and financial return to investors.
5. Conform to statutory requirements and Auking/Cazaly corporate requirements.
6. Develop and maintain good relationships with Government agencies, key stakeholders and local communities.
7. Seek to actively employ local workforce wherever feasible to do so.

11.3 DEVELOPMENT STRATEGY

Projects are developed in phases with each stage further defining the Project and with a corresponding increase in detail. The following figure provides a summary project implementation framework for a typical resource project. The Koongie Park is currently at the Scoping stage, with the next stage being the completion of a PFS.

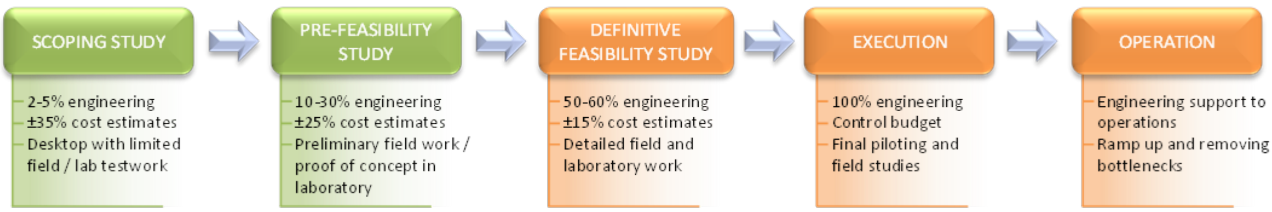


Figure 11-1: Project Implementation Framework

11.4 PROJECT IMPLEMENTATION SCHEDULE

A preliminary project implementation schedule has been developed for the implementation of the Project from the completion of this Scoping study through to execution. The overall purpose of the implementation schedule is to identify critical path items and understand realistic timeframes required to bring the Project into production.

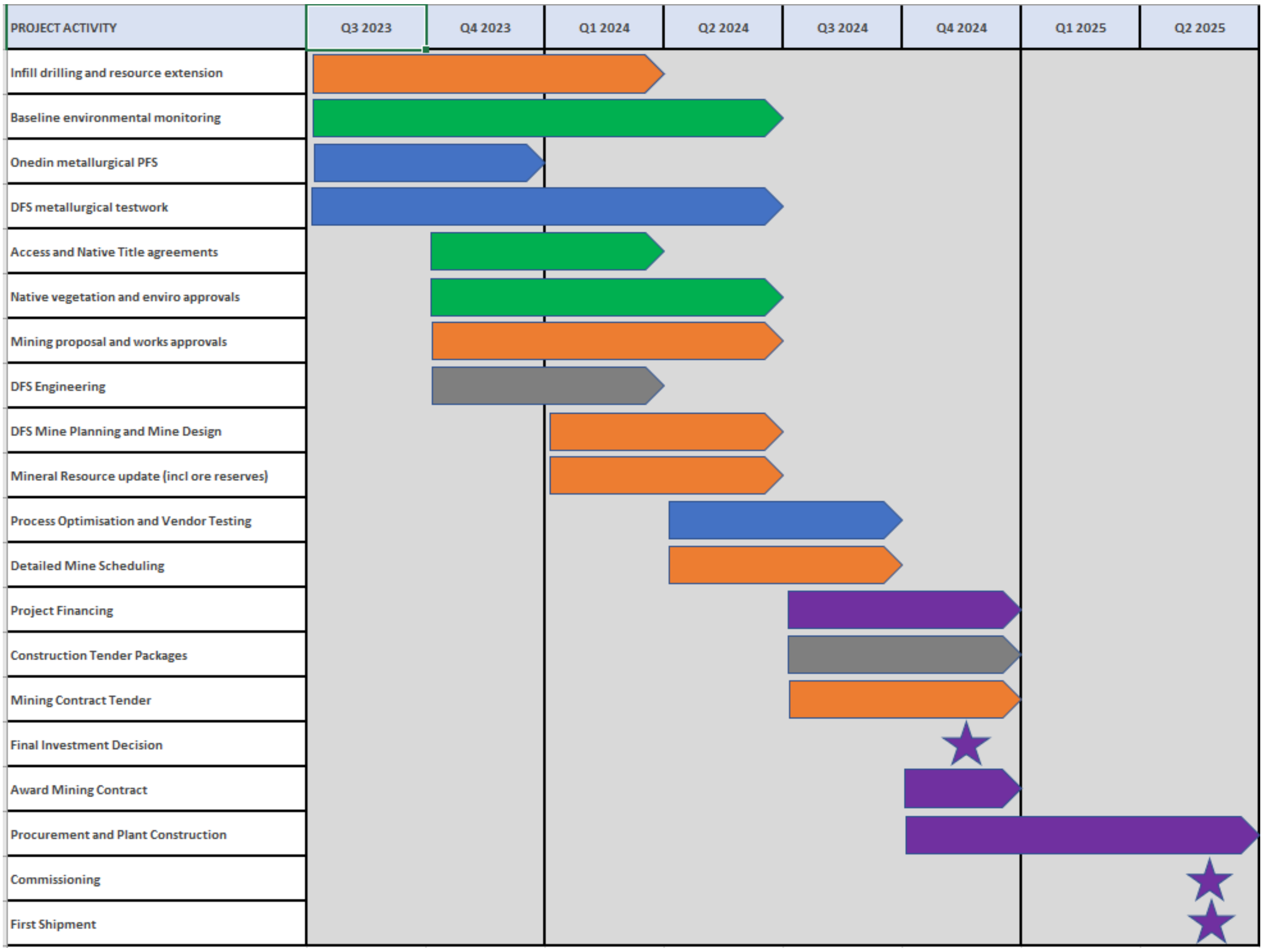


Figure 11-2: Proposed Development Timing

The project schedule will be driven by the completion of the Scoping study and subsequent Pre-Feasibility study. Auking has recognised this with respect to approvals and has begun the planning process.

The following is a summary of key activities to be undertaken between the completion of this Scoping study and a final investment decision:

1. Additional exploration, resource and reserve definition drilling.
2. Process development and optimisation testwork.
3. Completion of environmental surveys, permitting and approvals.
4. Definitive Feasibility Study.
5. Front End Engineering and Design (FEED).
6. Long lead-time procurement items (pre-Final Investment Decision); and,
7. Financing activities.

It is noted that Auking may seek a faster schedule to operations. The above milestones are based on a traditional approach to project development, financing and implementation and consider the climatic conditions within the project area i.e., the difficulty in completing construction activities during the heavy wet season. It is likely that opportunities exist to shorten this schedule, and this would need to be the subject of further and more detailed schedule work based on more defined engineering.

11.5 PROJECT DELIVERY STRUCTURE AND CONTRACTING STRATEGY

The project delivery will be structured around major capital cost packages (CPs) and operating cost packages (OPs). Each package area will consist of either single major contractor or multiple smaller contracts utilising various contracting styles. A preliminary contracts register has been prepared on this basis (presented further below), and the final contracts register may vary by either breaking down packages further or consolidating together into larger contracts.

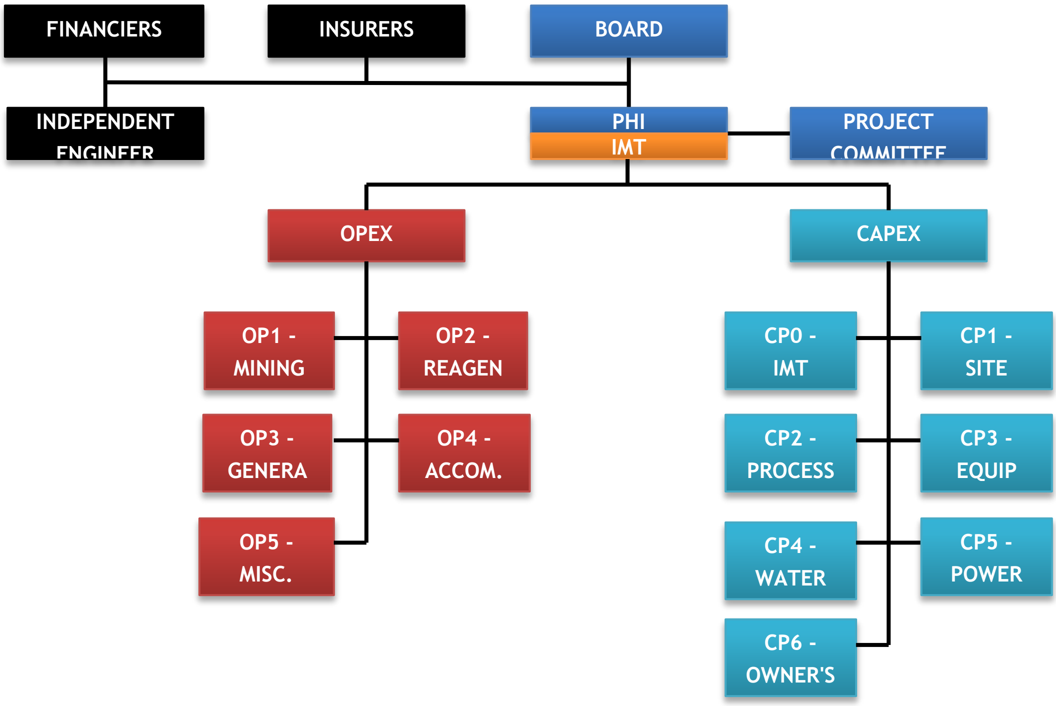


Figure 11-3: Project Delivery Structure

The tables following provide preliminary evaluation of the major contract classifications and the major contracts register.

Table 11-1: Contract Classifications

CLASSIFICATION	GENERAL TERMS AND CONDITIONS
Consulting and professional services (including engineering)	AS4122 (with annexures)
Construction only	AS4000 (with annexures)
Supply (without installation)	AS4911(with annexures)
Supply (with installation)	AS4910 (with annexures)
Design and construct (EPC)	AS4902 (with annexures)
General supply (goods)	Purchase order agreement
Build Own Operate / Transfer (BOO/BOOT)	Bespoke agreement

Table 11-2: Preliminary Contracts Register (and contribution to capex excluding contingency)

CONTRACT NUMBER	CONTRACT DESCRIPTION	CONTRACT CLASSIFICATION
CP0-01	Integrated Management Team (including engineering and owner's costs)	Consulting
CP1-01	Site Infrastructure - Site Development	Construction only
CP1-02	Site Infrastructure - Non-Process Infrastructure and Facilities	Design and construct
CP1-03	Site Infrastructure – Mine Infrastructure	
CP2-01	Process plant - beneficiation	Supply (with construction)
CP3-01	Mobile equipment and spares	Purchase order
CP4-01	Water supply dam	Construction only
CP4-02	Water supply pipeline	Construction only
CP5-01	Power station	Design and construct
CP5-02	On site HV reticulation	Construction only
CP6-01	Communications	Design and construct
CP6-02	Accommodation village	Design and construct

11.6 OPERATIONAL READINESS

11.6.1 RESPONSIBILITY

Operational readiness is the joint responsibility of the Project Delivery Team and the Operational Team.

The Project Director will delegate specific operational readiness tasks to others within the Integrated Management Team (IMT).

11.6.2 OVERVIEW

Operational readiness involves several aspects, summarised in Figure 11-4.

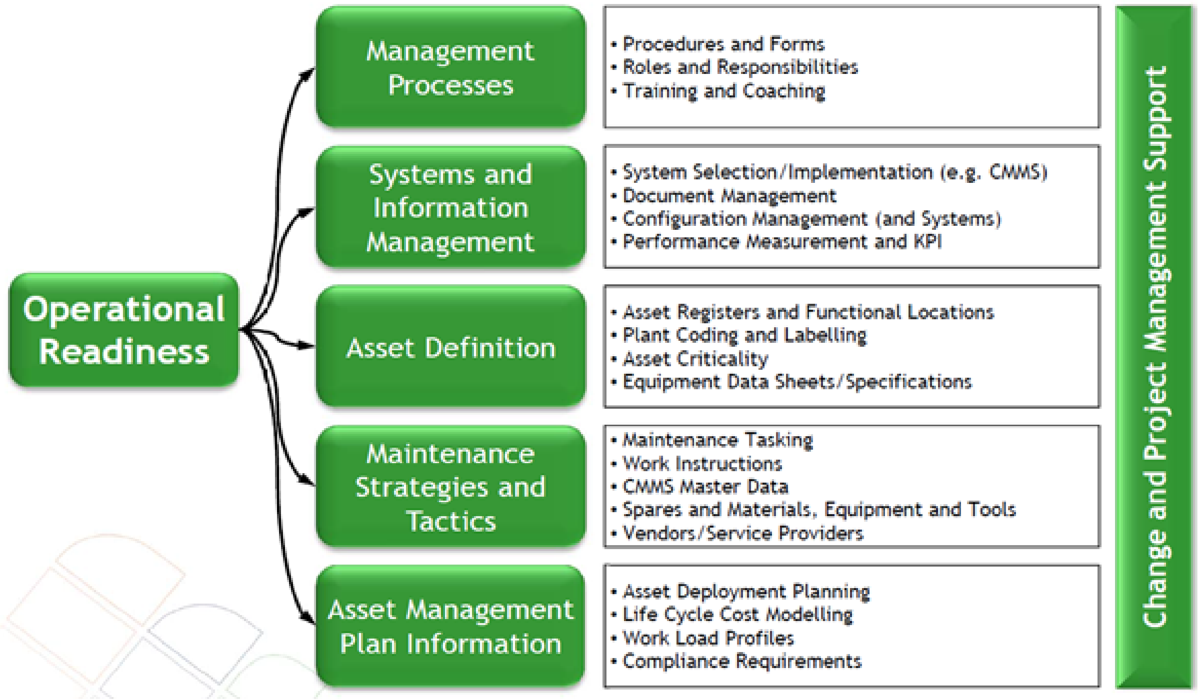


Figure 11-4: Operational Readiness Structure

An Operational Readiness Plan will be prepared during the execution phase of the Project and will generally provide the deliverables listed in the following table.

OPERATIONAL READINESS AREA	DELIVERABLE
ASSET REGISTER	Financial Asset Register Content Computerise Maintenance Management System (CMMS) Equipment Hierarchy and Attributes
CMMS AND DOCUMENT MANAGEMENT SYSTEM	(CMMS)/Data Management System (DMS) Configuration Data Population

OPERATIONAL READINESS AREA	DELIVERABLE
MAINTENANCE PLANS	Reliability Centred Maintenance (RCM)/Failure Mode Effect Critical Analysis (FMECA) Maintenance Strategies and Tactics Maintenance Work Instructions CMMS Uploaded
SPARES, MATERIALS AND SERVICE PROVIDERS	Spares, Materials and Services Definition CMMS Catalogue Uploaded
MANAGEMENT PROCESSES	Procedures Governing Key Business Processes e.g. Operate and Maintain
EQUIPMENT OPERATING PROCEDURES	Operating Procedures and Work Instructions Operator Training Material Developed and Delivered
LIFE CYCLE COSTING	Life Cycle Costs/Budgeting
ASSET AND EQUIPMENT CODING AND LABELLING	CMMS, Documentation and Physical Labels Aligned

11.7 ASSET REGISTER

To facilitate the transition to operations, the asset register will be developed during the engineering phase.

Each piece of equipment will be labelled in accordance with the equipment naming procedure, and will consist of the following hierarchical structure:

SITE CODE – L1 EQUIPMENT CODE – WBS CODE – L2 EQUIPMENT CODE – L3 EQUIPMENT CODE

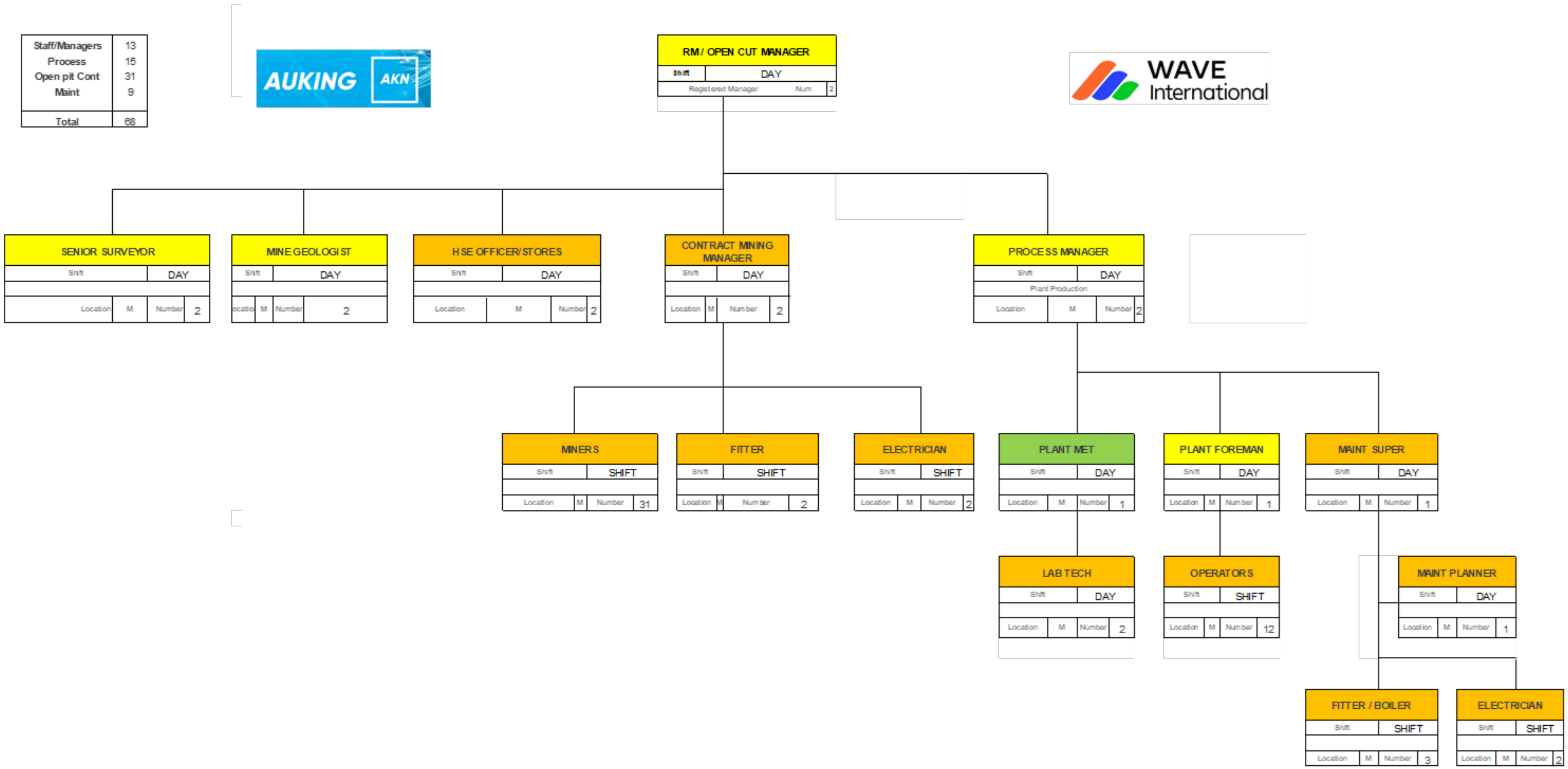
Example: The asset code for the electrical motor (EM01) on the main drive unit (DV01) for the feeder (FE) at the truck dump area (WBS 3211) at the Koongie Park (AUK) site would be:

AUK.FE. 3211.DV01. EM01

All cost data from supply and installation contracts will be broken down such that asset values for depreciation can be determined for accounting purposes.

11.8 ORGANISATION CHART

Staff/Managers	13
Process	15
Open pit Cont	31
Maint	9
Total	68



12 CAPITAL COST ESTIMATE

12.1 ESTIMATE SUMMARY

Table 12-1: Cost Estimate by Cost Type

COST TYPE	COST BREAKDOWN DESCRIPTION	VALUE AUD$
PROCESSING	Mechanical	$24,000,000
	Earthworks	$1,200,000
	Concrete	$4,800,000
	Steelwork	$6,000,000
	Platework	$2,880,000
	Piping	$6,000,000
	Electrical	$8,400,000
	Control	$1,200,000
	Mech install	$6,000,000
NON-PROCESS INFRASTRUCTURE	Water dam	$750,000
	Tailings	$1,000,000
	Facilities	$4,201,000
	Site earthworks / roads	$2,250,000
	Power supply	$3,750,000
	Water treatment	$1,875,000
	Communications	$750,000
	Camp	$3,000,000
DIRECT COSTS TOTAL		**$78,056,000**
INDIRECT	Spares, first fill, etc	$1,200,000
	Owner's cost	$2,341,680
	Contractor P&Gs	$14,936,209
	EPCM	$15,611,200
INDIRECT COSTS TOTAL		**$34,089,089**
GRAND TOTAL EXCLUDING CONTINGENCY		**$112,145,089**
CONTINGENCY	20%	$22,429,018
GRAND TOTAL INCLUDING CONTINGENCY		**$134,574,107**

12.2 BASIS OF ESTIMATE

12.2.1 GENERAL

The general estimating philosophy that was utilized to determine the direct field cost and the indirect cost were a combination of Stochastic (factoring) and Analogy (like for like) and Deterministic (measurement) estimating techniques.

See below under each heading which estimating methodology and which of the Project's information and/or quantities were utilized to compile the Capex Estimate.

The estimate was based solely upon the PFD and a priced mechanical equipment list as determined by the conceptual design. A scoping study estimate such as this, where factors are used to determine capital cost based on the mechanical equipment value, is very dependent on the accuracy of the priced mechanical equipment list (both in terms of price and content). All attempts have been made to include sufficient equipment in the list as expected by the layout and similar, operating plants, noting the early stage of the study and limited engineering progress to date.

12.2.2 DIRECT FIELD COSTS

12.2.2.1 Mechanical Equipment

The estimate value has been determined using the Wave database and based on similar sized projects. Note that the value used is for supply, including delivery to site only and excludes any installation.

12.2.2.2 Mechanical Installation

The estimate value has been determined using adjusted database factors to suit the project location.

12.2.2.3 Civils and Earthworks

The estimate value has been determined using adjusted database factors to suit the project. Specific consideration given to a flat site, relatively short access road and the assumption that very little material will have to be imported.

12.2.2.4 Structural Steelwork

The estimate value has been determined using adjusted database factors to suit the project. There is no unusual consideration considered for structural steelwork, except for certain plant areas having a more corrosive environment than generally allowed for.

12.2.2.5 Platework Bulks

The estimate value has been determined using adjusted database factors to suit the project.

12.2.2.6 Piping

The estimate value has been determined using adjusted database factors to suit the project. The adjustment to expected norms are a marginal increase to allow for some highly corrosive plant areas.

12.2.2.7 Electricals

The estimate value has been determined using adjusted database factors to suit the project Electricals.

12.2.2.8 Control Instrumentation

The estimate value has been determined using adjusted database factors to suit the project Electricals.

The following table provides the factors applied in the cost estimate.

Table 12-2: Direct Field Cost Allowances

<table>
<tr><th>Discipline</th><th>Benchmark % Range</th><th>Quantity Surveyor Recent Recommendation</th><th>REF 1</th><th>REF 2</th><th>Selected</th></tr>
<tr><td>Earthworks</td><td rowspan="2">16%-26%</td><td rowspan="2">18%</td><td>2%</td><td>4%</td><td>5%</td></tr>
<tr><td>Concrete</td><td>13%</td><td>34%</td><td>20%</td></tr>
<tr><td>Steelwork</td><td>15%-26%</td><td>22%</td><td>16%</td><td>12%</td><td>25%</td></tr>
<tr><td>Platework</td><td>15%-25%</td><td>19%</td><td>13%</td><td>11%</td><td>12%</td></tr>
<tr><td>Piping</td><td>19%-38%</td><td>21%</td><td>31%</td><td>24%</td><td>25%</td></tr>
<tr><td>Electrical</td><td>4%-15%</td><td>10%</td><td>35%</td><td rowspan="2">28%</td><td>35%</td></tr>
<tr><td>Control</td><td>12%-25%</td><td>12%</td><td>5%</td><td>5%</td></tr>
<tr><td>Mech install</td><td>12%-35%</td><td>25%</td><td>Included</td><td>Included</td><td>25%</td></tr>
<tr><td>Total</td><td>93%-164%</td><td>127%</td><td>115%</td><td>112%</td><td>152%</td></tr>
</table>

12.2.3 CONSTRUCTION INDIRECT COSTS

These costs were factored from the Wave database using similar projects.

Indirect /field Costs include:

1. Major plant and equipment (carnage, generators, etc) required for construction.
2. Mobilisation and demobilisation.
3. Scaffolding.
4. Contractor’s site facilities including stores, workshop, offices, etc
5. Accommodation expenses.
6. Insurances.
7. Contractors head office expenses.
8. Contract management and Commissioning and Testing.

12.2.4 NON-PROCESS INFRASTRUCTURE

Non process infrastructure has been estimated on a high-level quantities and rates basis, and comparative estimate basis from similar projects.

12.2.5 OWNERS / INDIRECT COSTS AND CONTINGENCY

Owners indirect costs were factored from database using similar projects and at this stage does not consider specific owner company strategies and structures but provides what would be considered reasonable for an emerging producer.

The allowance typically includes for the following services and items:

1. Environmental consultants.
2. Surveys.
3. Geology, Hydrology, etc
4. Insurances.
5. Permits.
6. Legal.
7. Operational readiness.
8. Import duties.

The following table summarises factors used for owners and other indirect costs.

Table 12-3: Indirect Costs Allowances

Item	UOM	Unit Rate	Comment
Spares, first fill, etc	%	5	% of equipment cost
Owners Costs	%	5	% of total direct cost
Contractors P&Gs	%	20	% of total direct cost
EPCM	%	25	% of total direct cost
Contingency	%	20	% of total direct and indirect cost

12.2.6 ESTIMATE CONSTRAINTS, ASSUMPTIONS AND EXCLUSIONS

The list below reflects the currently identified constraints and exclusions that are pertinent to this Capex Estimate view:

- Force majeure issues.
- Future scope changes.
- Foreign exchange cover.
- Standing costs.
- Mining infrastructure only allowed for haul roads, surface water diversions and power and water supply – no pre-stripping or pit development as this is considered as OPEX and part of the mining contractors' scope.
- Generally, the local topography can be considered as flat.
- The facility to be specified and constructed to suit a 24hr/365 days life-of-mine plan.

No allowance is made for escalation.

12.3 ESTIMATE CLASSIFICATION

This estimate is classified as a class 4 estimate as per the AACE definition in the table below, which is equivalent to a class 5 estimate as defined in AusIMM. The AACE definition is used here as it provides a more detailed description of the estimate classification.

Table 12-4: AACE Definition

	PRIMARY CHARACTERISTIC	SECONDARY CHARACTERISTIC		
ESTIMATE CLASS	**LEVEL OF PROJECT DEFINITION** Expressed as % of complete definition	**END USAGE** Typical purpose of estimate	**METHODOLOGY** Typical estimating method	**EXPECTED ACCURACY RANGE** Typical variation in low and high ranges [a]
Class 5	0% to 2%	Concept Screening	Capacity Factored, Parametric Models, Judgment or Analogy	L:-20% to -50% H: +30% to +100%
Class 4	1% to 15%	Study or Feasibility	Equipment Factored or Parametric Models	L: -15% to -30% H: +20% to +50%
Class 3	10% to 40%	Budget, Authorization or Control	Semi-Detailed Unit Costs with Assembly Level Line Items	L: -10% to -20% H: +10% to +30%
Class 2	30% to 75%	Control or Bid/Tender	Detailed Unit Cost with Forced Detailed Take-off	L: -5% to -15% H: +5% to +20%
Class 1	65% to 100%	Check Estimate or Bid/Tender	Detailed Unit Cost with Detailed Take-off	L: -3% to -10% H: +3% to +15%

Notes: [a] The state of process technology and availability reference cost data affect the range markedly. The ± value represents typical percentage variation of actual costs from the cost estimate after application of Contingency (typically at a 50% level of confidence) for given scope.

Source: AACEI Recommended Practice RP18-97 Estimate Classification

13 OPERATING COST ESTIMATE

13.1 ESTIMATE SUMMARY

An operating cost estimate (OPEX) was prepared for AuKing's proposed copper zinc project. The OPEX was developed as a bottom-up estimate and is based on the engineering development of the process explained in earlier chapters, specifically the mass and water balance, process design criteria and mechanical equipment list. Prices are based off vendor enquiries, AuKing's inputs and Wave's internal database.

The OPEX results reported are representative of annual steady state operations which were calculated by taking the LOM forecast produced tonnes of Copper and Zinc, then dividing by the LOM (11.1 years). Steady state production for copper and zinc are 9,900tpa and 3,460tpa respectively. The OPEX has an accuracy of a Class 4 estimate allowing for a ± 30-50% accuracy. The following table summarises the operating cost estimate results for the total operation.

Table 13-1: Processing Operating Cost Estimate

ELEMENT	AUD$/Y	AUD$/T FEED	AUD$/T PROD
Labour	6.33	8.44	473.8
Maintenance	1.98	2.64	148.0
Electrical Power	10.62	14.16	795.2
Reagents	13.83	18.44	1,035
Diesel	0.58	0.78	43.73
Transport and Logistics	0.53	0.71	40.00
Flights & Accommodation	2.31	3.08	173.0
G & A	2.62	3.49	195.8
Total	**38.81**	**51.75**	**2,905**

13.2 ESTIMATE DETAILS

13.2.1 LABOUR

The organisational structure and salaries were built up by Wave from its internal database and experience on previous and similar projects. The mining personnel are listed only with employee headcounts as salaries are built into the mining cost while flights and accommodation are not.

Table 13-2: Labour Cost Summary

POSITION	#	SALARY	28% ON-COST	TOTAL	TOTAL ANNUAL LABOUR COST
Staff/Managers					
RM / Open Cut Manager	2	250,000	70,000	320,000	640,000
Senior Surveyor	2	155,000	43,400	198,400	396,800
Mine Geologist	2	155,000	43,400	198,400	396,800
HSE Officer/Stores	2	175,000	49,000	224,000	448,000
Process					
Process Manager	2	220,000	61,600	281,600	563,200
Plant Metallurgist	1	150,000	42,000	192,000	192,000
Lab Technician	2	100,000	28,000	128,000	256,000
Plant Foreman	1	180,000	50,400	230,400	230,400
Operators	12	120,000	33,600	153,600	1,843,200
Maintenance Superintendent	1	190,000	53,200	243,200	243,200
Maintenance Planner	1	175,000	49,000	224,000	224,000
Fitter/Boiler	3	140,000	39,200	179,200	537,600
Electrician	2	140,000	39,200	179,200	358,400
Mining					
Contract Mining Manager	2				
Miners	31				
Fitter	2				
Electrician	2				
Total	**70**				**6,329,600**
AUD/t Feed					**8.44**
AUD/t Product					**473.8**

13.2.2 MAINTENANCE

Maintenance costs were based on plant requirements and the calculated CAPEX. Factors based off industry standards were used as the basis for fixed plant maintenance and is presented below.

Table 13-3: Fixed Plant Maintenance Cost

ELEMENT	Supplied CAPEX (AUD	Factor	AUD$/Annum	AUD$/T PROD
Mechanical/Platework	26,880,000	4.50%	1,209,600	90.5
Pipe Work	6,000,000	2.00%	120,000	8.98
Electrical	9,600,000	3.00%	288,000	21.6
Infrastructure	15,326,000	1.00%	153,260	11.5
Total			**1,770,860**	**132.5**

Light Vehicle Maintenance represents the expected fleet required for the project and costs were taken from the Wave database.

Table 13-4: Light Vehicle Maintenance Cost

Item	#	Annual Maintenance Cost	Operating Hours	AUD/h	AUD/annum
Mobile Crane (20t)	1	-	1,095	8.00	8760
Container Lifter	1	-	547.5	15.00	8213
Telehandler	1	-	547.5	15.00	8213
EWP	1	-	547.5	4.00	2190
Fire Truck	1	3,900	50	15.00	4650
Forklift	1	3,850	1,971	2.00	7792
Bobcat	1	3,850	2,759	4.00	14888
FEL	1	131,400	4,380		131,400
Landcruiser (Prado)	1	2,530	1,577		2530
Dual Cab Ute (Hilux)	2	2,530	1,577		7590
Tray Top Ute (Hilux)	2	2,530	1,577		7590
Troop Carrier (Ambulance)	1	2,030	100		3045
Bus (25 Seater)	1		50	15.00	
Total					**206,860**

13.2.3 POWER

Diesel generator sets supply electricity to site. The unit cost (AUD/kWh), electrical load, and yearly operating hours were estimated from the mechanical equipment list. The pricing is based on Wave's internal database information. A price of 0.26 AUD/kWh was used.

Table 13-5: Electrical Power Cost

Electrical Power	Installed	AUD/kWh	AUD$/Annum	AUD$/T PROD
Site Power	**7.7 MW**	**0.25**	**10,623,690**	**1,073**

13.2.4 REAGENTS AND CONSUMABLES

The following reagents are the major chemical components regularly used for operation. The annual reagent costs are presented below. The tonnes of NaSH are only required for the process involving oxide and transitional ore, therefore when fresh ore is mined this reagent will not be required.

Table 13-6: Reagent & Consumables Cost

Reagent	t/annum	AUD/t	AUD/annum	AUD/T PROD
NaHS*	1,575	800	1,260,000	94.3
Lime	1,879	280	526,120	39.4
Cyanide	1,515	2,200	3,333,000	249.5
Zinc Sulphate	2,250	390	877,500	65.7
Aerophine 3418A	150	12,000	1,800,000	134.7
SMBS	750	450	337,500	25.3
MIBC	37.5	3,500	131,250	9.82
Copper Sulphate	1,894	2,700	5,113,800	382.8
Xanthate	126	2,400	302,400	22.6
Flocculant	75	2,000	150,000	11.2
Total			**13,831,570**	**1,035**

*Only for Oxide & Transitional Ore

13.2.5 DIESEL

Specific equipment diesel burn rates and operational hours' drive the diesel cost. Equipment diesel consumption rates were taken from publicly available information and Wave's internal database. Operational hours were based off Wave's experience with previous similar projects. A diesel price of AUD 1.40/L was used and is a post-excise value.

Table 13-7: Diesel Cost

Mobile equipment [#]	Consumption (L/h)	Operation (h/annum)	Annual Consumption (L/annum)	AUD/annum
Front-End Loader [1]	50		219,000	306,600
Mobile Crane (20T) [1]	20.00	1,095.00	21,900	39,420
Container Lifter [1]	21.00	547.50	11,498	20,696
Telehandler [1]	20.00	547.50	10,950	19,710
EWP [1]	10.00	547.50	5,475	9,855
Fire Truck [1]	40.00	50.00	2,000	3,600
Forklift [1]	20.33	1,971.00	40,077	72,139
Bobcat [1]	9.00	2,759.40	24,835	44,702
Landcruiser (Prado) [1]	9.00	1,576.80	14,191	25,544
Dual cab ute (Hilux) [2]	8.50	1,576.80	26,806	48,250
Tray top ute (Hilux) [2]	8.00	1,576.80	25,229	45,412
Troop Carrier (Ambulance) [1]	8.00	100.00	800	1,440
Total			**417,360**	**584,304**

13.2.6 TRANSPORT AND LOGISITICS

Allowances were made for the transport of products from the site to overseas customers. The annual transport cost is presented below and accounts for FOB shipping terms.

Table 13-8: Transport Cost

Item	AUD/t PROD	AUD/annum
Transport – Land	**40.0**	**534,408**

13.2.7 FLIGHTS AND ACCOMMODATION

Flight costs and man-day rates were taken from the Wave international database. The number of trips and days accommodation is based off a 2 week on, 1 week off fly-in fly-out roster (2:1 FIFO).

Table 13-9: Flights & Accommodation Cost

Item	Rate/person	#/annum/person	AUD$/Annum	AUD$/T PROD
Flights	AUD 500/return	17 trips	608,333	45.5
Accommodation	AUD 100/man day	243 days	1,703,333	127.5
Total			**2,311,667**	**173.0**

13.2.8 GENERAL AND ADMINISTRATION

General & Administration (G&A) costs account for costs that are unable to be allocated to a specific cost area but will most likely be incurred. Examples of these costs include general tools, office cleaning services, and insurance. A summary of the G&A costs can be found below.

Table 13-10: G&A Costs

Item	AUD/annum	AUD/PROD
General And Consumables	175,000	13.10
Contract Expenses	149,500	11.19
ICT	255,500	19.12
General Expense	1,114,050	83.39
HSEC	922,250	69.03
Total	**2,616,300**	**195.83**

13.2.9 MINING

Operating costs for open pit and underground operations were built off previous similar projects from Wave's internal database and engineer's previous experience. Open cut operations occur for 9 years while underground operations occur for 3.5. Mining costs can be found below with underground costs built into an "all-in" rate.

Table 13-11: Open Cut Mining Units

Open Cut Mining	AUD/T Material Moved
Management	0.42
Drill and Blast	1.67
Haulage	1.10
Waste	3.35
Ore	0.39
Total	**6.93**

Table 13-12: Open Cut Mining Costs

Open Cut Mining	AUD/annum	AUD/T Ore
Management	2,866,890	3.82
Drill & Blast	11,399,301	15.20
Haulage	7,508,521	10.01
Waste	22,866,861	30.49
Ore	2,662,112	3.55
Total	**47,303,685**	**63.07**

Table 13-13: All-in Underground Mining Cost

Underground Mining	AUD/annum	AUD/T Ore
Total	**105,000,000**	**140.0**

14 ECONOMIC ANALYSIS

14.1 INTRODUCTION

The scoping study financial model for AuKing's Koongie Park Copper Zinc project (the project) uses a discounted cashflow methodology to assess the financial viability of the project. The financial model relies on inputs taken from the process design criteria (PDC), operating cost estimate, capital cost estimate and Wave international database information. The information provided in this chapter is taken directly from the financial model. The financial model is a 100% equity model containing AUD 39 M in previous losses and with values in real terms.

14.2 SUMMARY

The key financial highlights are:

1. Post-tax net present value (NPV) of AUD 125.2 M
2. Post-tax internal rate of return (IRR) of 32.4%
3. EBITDA of AUD 447.5 M over the life of mine (LOM)
4. Average annual operating cashflow of AUD 29.85 M
5. Nominal payback of development capital of 2.45 years from first production

14.3 ACCURACY OF ESTIMATE

The financial evaluation was developed as a bottom-up estimate. The level of accuracy is that of a Class 5 estimate, as such the extent of work performed allows for a ± 30 – 50 % accuracy.

14.4 ASSUMPTIONS

The following key assumptions were included in the financial model:

1. Weighted average cost of capital (WACC) of 8%
2. Tax rate of 30%
3. Double Declining Balance (DDB) Depreciation
4. AUD:USD of 1:0.67
5. Copper Pricing of 3.90 USD/lb for the LOM
6. CAPEX
    a. Initial CAPEX of AUD 134.6 M
    b. LOM CAPEX of AUD 144.3 M
7. Production commences after 12 months of construction
8. 11 year mine life

14.5 KEY METRICS

The project's financial return is underpinned by the strong operating profit delivered from the first year of production onwards. The production costs found in Table 14-1 are calculated directly from the financial model. The following table details the operating results of the project. C1 costs include all fixed and variable costs. C2 costs include C1 costs and depreciation. All-in-sustaining costs (AISC) include C1 costs, sustaining capital. Sustaining capital amounts to AUD 1.55 M/annum and begins being paid from the first month of production until the end of the project.

Table 14-1: Project Operating Results

ITEM	METRIC	UNITS
NPV, pre-tax (8%)	AUD M	176.9
IRR, pre-tax	%	39.7
NPV, post-tax (8%)	AUD M	125.2
IRR, post-tax	%	32.4
Payback (start of prod.)	Years	2.45
Initial CAPEX	AUD M	134.6
LOM CAPEX	AUD M	144.3
LOM Revenue	AUD M	1,594
LOM OPEX (excl. royalties)	AUD M	1,067
LOM EBITDA	AUD M	447.5
C1 Cost	AUD/t PROD	7,197
C2 Cost	AUD/t PROD	8,164
C3 Cost	AUD/t PROD	8,699
Average Price Received	USD/lb Cu	3.90
Average Price Received	USD/lb Zn	1.33
Average Price Received	USD/oz Ag	30.00
LOM Ore Processed	Tonnes	8,087,891
LOM Cu Produced	Tonnes	109,893
LOM Zn Produced	Tonnes	38,405
LOM Ag Produced	Ounces	355,166
LOM	Years	11.10

14.5.1 REVENUE AND PROFITS FORECAST

The forecast copper, zinc, and silver prices are based off third party research and independent research conducted by Wave and represent a "base case" scenario. Product pricing remains flat throughout the LOM. The fluctuation of operating costs and revenue is due to the increasing/decreasing tonnes of waste/ore and ore grade between the different pits. The Sandiego open pit is the first site to be mined, followed by Mount Angelo, Onedin, Bommie, and Sandiego Underground. Wave has conducted scenario testing and has found this to be the optimal order of operations considering the current mining plan.

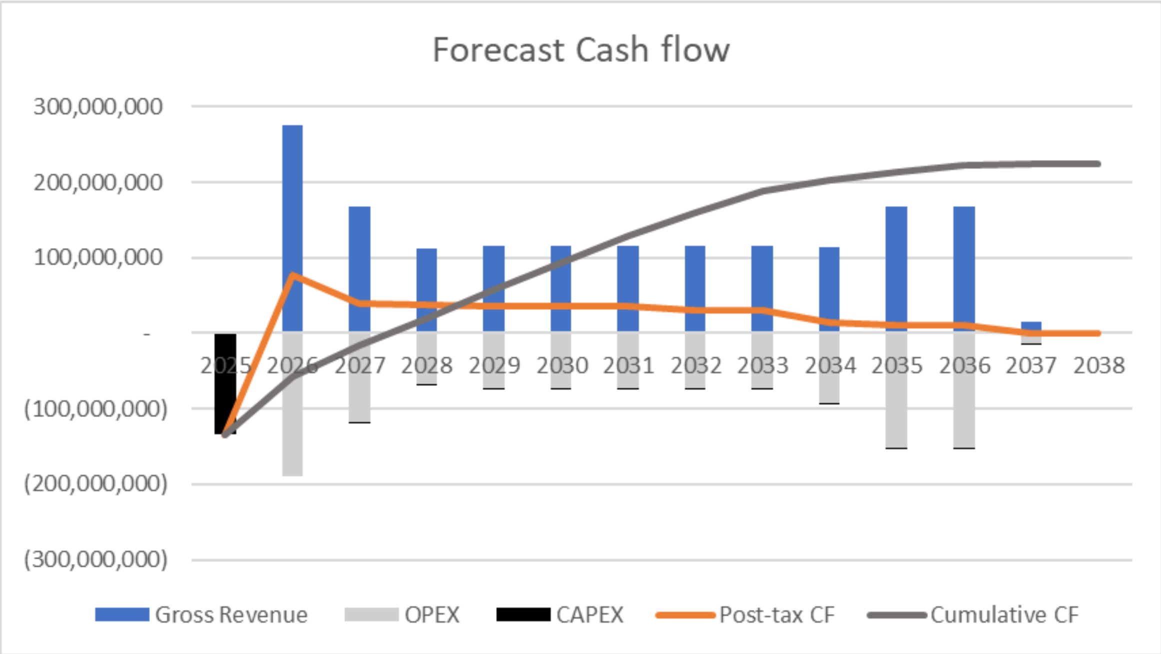


Figure 14-1: Project LOM Cash Flows

14.5.2 SENSITIVITY ANALYSIS

Sensitivity of the project's post-tax NPV to key variables was investigated. Using the post-tax result calculated from the financial model, each of the kay variables were independently flexed between ±30%. The areas flexed, in order from most sensitive to least sensitive are:

1. Copper Price
2. AUD:USD exchange rate
3. OPEX
4. CAPEX
5. Discount Rate

The individual areas are first sensitised individually and plotted on a bow tie graph and tornado chart to show their effects on the post-tax NPV values.

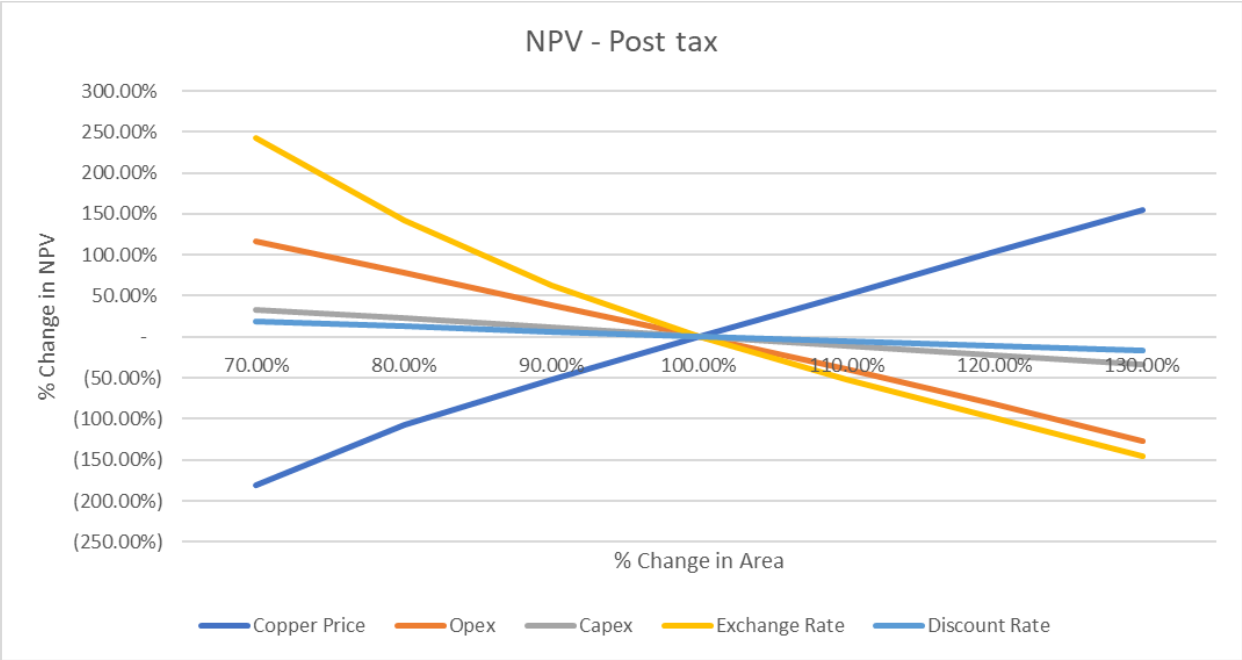


Figure 14-2: Bowtie Sensitivity Analysis

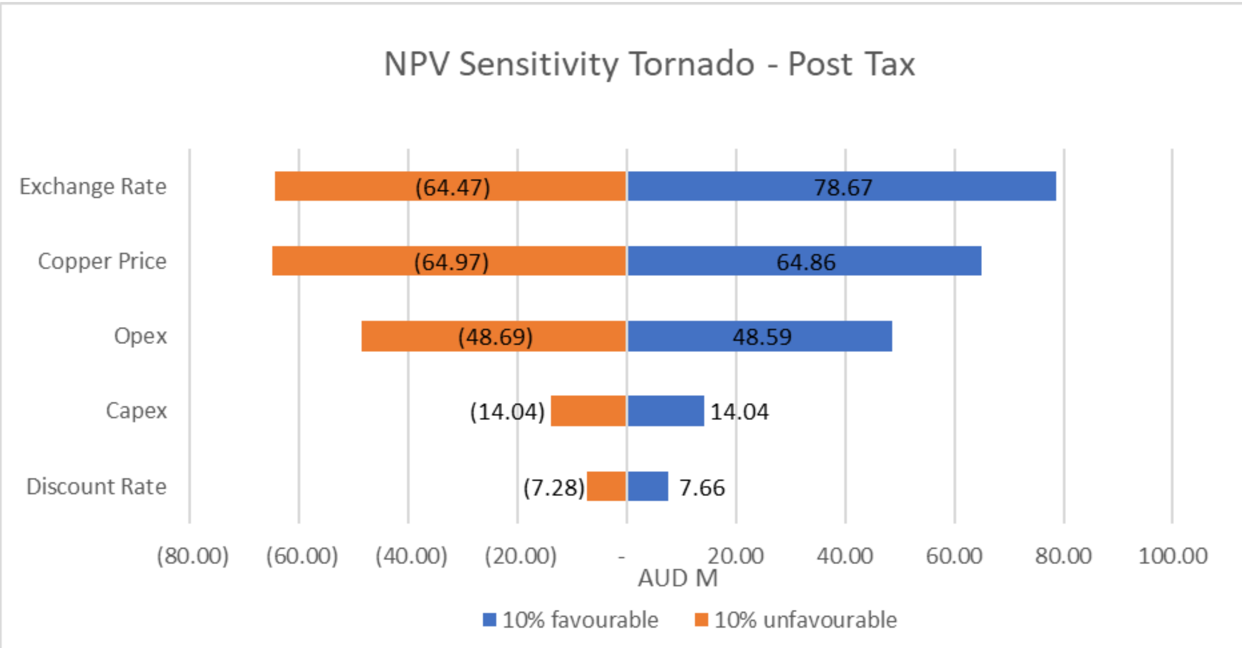


Figure 14-3: Tornado Chart Sensitivity Analysis

15 FORWARD WORK PLAN

15.1 ENVIRONMENTAL APPROVAL

A work plan for obtaining necessary Project approvals will need to be formulated. Some of these approvals may have commenced but will need to be worked through to completion. Some of these approvals will require input information from a more advanced study and hence may not be complete at the end of the PFS/DFS stage.

15.2 GEOLOGY

It is recommended that further resource drilling be undertaken at Sandiego to extend the underground resource. The drill programs should aim to:

1. Confirm and expand the current geological model.
2. Increase drilling density to move Indicated Resources into Measured forming the basis of the Ore Reserve.
3. Enhanced definition of the higher-grade zones to sequence the mine delivering best commercial result.
4. Move Inferred Resources into Indicated so it can be classified into Probable and Proven.
5. Additional drilling in the previously classified Inferred and Indicated to provide further assay data and grade validation.

15.3 MINING

The current mining assessment was performed at a high level and some assumptions were made.

The following recommendations are made to further progress the Halls Creek Project mining aspects into the next phase of the Project:

1. Further analyze mine planning options, including equipment selection, and produce an optimized mine plan and methodology based on the updated resource (mainly for waste);
2. Based on this schedule and methodology, obtain competitive market proposals from mining contractors (including key commercial terms);
3. Conduct trial mining utilizing alternate mining methodology and to perform Mining fragmentation testing.
4. Confirmation of cut-off grade once recoveries and costs developed to PFS confidence.
5. Confirmation of contaminant management (blending) once recoveries developed to PFS confidence.
6. Detailed strategy for in-pit waste rock and tailings placement.
7. Update of mining costs for selected mining method.
8. Update of pit optimization, pit design and strip / block layout based on final recoveries, mining method and mining/process/ admin costs.
9. Detailed truck haulage model for ore and waste to match final mine method and layout.
10. Final production schedule including ore, waste and mining fleet/workforce/consumables/costs.
11. Generate Ore Reserve.

15.4 METALLURGICAL TESTWORK

Before commencement of the PFS, it is recommended that a further program of metallurgical testwork be undertaken. There are optimisation testwork programs that are required to allow the PFS to be conducted and achieve project and operating costs to the required level of accuracy.

A number of composite samples should be formed that consists of material that will be mined during the first 4 – 5 years of operation with the following.

1. Mineralogy to be conducted on selected samples.
2. Sulphidisation optimisation for residence time to promote optimal flotation levels.
3. Flotation Optimisation for residence time to achieve optimal levels of independent Copper and Zinc recovery.
4. Filtration testwork for dewatering of the copper and zinc concentrates and coarse tailings.
5. Conduct Transportable Moisture Limit trials (TML) for both concentrate samples for shipment.
6. Undertake bench scale variability programs across a representative area within the early years of the mine schedule; and,
7. Samples for this testwork program should be taken from retained bulk samples (if available) or additional bulk samples from site.

It is also recommended to conduct a preliminary testwork program to assess the potential of reducing or separating the iron content in the coarse product.

15.5 WATER SUPPLY

The Scoping Study has identified a preferred water supply solution. Further work in the PFS is required to:

1. Confirm the preferred route and complete basic surveys.
2. Engage with stakeholders / land holders as required.
3. Optimise the water supply based on optimised site water balance.
4. Confirm and update capital and operating costs for water supply.

15.6 GEOTECHNICAL

The following geotechnical works are recommended to inform the detailed design of the Open Cut and Underground mine, TSF, roads, process plant and site-wide bulk earthworks:

1. Borehole drilling and geotechnical assessment of all mining areas.
2. Borehole drilling and test at the process plant, focusing on key structures, rotating equipment and areas of significant excavation to determine geotechnical parameters required for structural analysis and footing design.
3. Borehole drilling and test pitting at the TSF and evaporation pond area, to better understand the ground conditions (geotechnical and hydrogeological.

APPENDIX A: GLOSSARY

TERM	DEFINITION
%w/v	Percent weight per volume, a measurement of slurry or solution strength
%w/w	Percent weight per weight, a measurement of slurry or solution strength
°	Degrees
a	Annum
A$	Australian dollars
AACE	American Association of Cost Engineers
AHIS	Aboriginal Heritage Inquiry System
Ai	Abrasion index
AMD	Acid mine drainage
AMEC	Association of Mining and Exploration Companies
ANC	Acid neutralising capacity
AS	Australian Standard
ASX	Australian Stock Exchange
A$	Australian currency (dollar)
AusIMM	Australasian Institute of Mining and Metallurgy
Ag	Silver
bcm	Bank (in situ) cubic metre
BFD	Block flow diagram
BMR	Base metals recovery
BOD	Basis of design
BoM	Bureau of Meteorology
BOO	Build, own, operate
BOOT	Build, own, operate and transfer
CAPEX	Capital expenditure
CCE	Capital cost estimate
CCR	Central control room
CHMP	Cultural Heritage Management Plan
CMS	Confirmation management system
Competent Person	Any public reporting of exploration results, mineral resources or ore reserves must be based on and fairly reflect documentation prepared by a Competent Person in accordance with the JORC Code
CPs	Capital cost packages
CPU	Central processing unit
CSA	CSA Global (resource and mining consultants)

TERM	DEFINITION
Cu	Copper
Cv	Coefficient of consolidation
CWi	Bond impact crushing work index
Cwlth	Commonwealth
D&C	Design and construct
DBCA	Department of Biodiversity, Conservation and Attractions
DCF	Discounted cash flow
DCS	Distributed control system
DEE	Department of Environment and Energy
DFS	Definitive feasibility study
DIDO	Drive-in drive-out
DMIRS	Department of Mines, Industry Regulation and Safety
DNRME	Department of Natural Resources, Mines and Energy
DPLH	Department of Planning, Lands and Heritage
DWER	Department of Water and Environment Regulation
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortization
EIA	Environmental impact assessment
EIL	Ecological investigation level
EIS	Environmental impact statement
EL	Exploration licence
ELH	Excavate, load and haul
EMS	Environmental management system
EP	Environmental protection
EPA	Environmental Protection Authority
EPBC	*Environment Protection and Biodiversity Conservation Act* 1999
EPC	Engineering, procurement, and construction
EPC Act	*Environmental Protection Act 1994*
EPCC	Engineering, procurement, construction, commissioning
EPCM	Engineering, procurement, and construction management
ERD	Environmental review document
ERP	Enterprise resource planning
ESD	Environmental scoping document
FCFE	Free Cashflow to Equity
Fe	Iron

TERM	DEFINITION
FEED	Front end engineering design
FEL	Front-end loader
FIFO	Fly-in fly-out
FoS	Factor of safety
FS	Feasibility study
FW	Footwall
GA	General arrangement
GDE	Groundwater dependent ecosystem
GJpa, GJ/a	Giga joules per annum
GL/a	Gigalitres per annum
GSA	Gas supply agreement
H:V	Horizontal to vertical
ha	Hectares
HDPE	High density polyethylene
HSEC	Health safety environment & community
HSMP	Health and Safety Management Plan
HSMS	Health, safety and management system
HV	Heavy vehicle also high voltage
HVAC	Heating ventilation and air conditioning
HW	Hanging wall
IBBA	Biogeographic Regionalisation of Australia
ICT	Integrated Information and Communications Technology
IM	Information management
IMT	Integrated management team
Inc	Included
IRR	Internal rate of return
ISPL	Integrate Sustainability Pty. Ltd.
IT	Information technology
ITIL	Information technology infrastructure library
IWL	Integrated waste landform
JORC	Joint Ore Reserves Committee. The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.
k	Thousand (kilo)
kBCM	Thousand bank cubic metres
kLCM	Thousand loose cubic metres

TERM	DEFINITION
km	Kilometres
km^2	Square kilometre
KPI	Key Performance Indicator
kt	Thousand tonnes, kilo-tonne
ktpa	Thousands of tonnes per annum
kV	Kilovolt
kW	Kilowatt
kWh	Kilowatt-hour
L	Litre
LOM	Life of mine – duration commencing at pre-strip and concluding at end of production
LOP	Life of project (20 years for the PFS)
LV	Light vehicle also low voltage
m	Metre
M	Million
m2	Square metres
m3	cubic metres
m^3/d	Cubic metre per day
Ma	Million years old
MCP	Mine closure plan
mD	Diameter in metres
MDE	Maximum design earthquake
MEL	Mechanical equipment list
mg/L	Milligrams per litre
MIA	Mine Industrial Area
ML	Mining lease
MLA	Mining lease application
mm	Millimetre
MOU	Memorandum of Understanding
MRE	Mineral resource estimate
MRF	Mine rehabilitation fund
MRRT	Minerals resource rent tax
Mt	Million tonnes
Mt/a, Mtpa	Million tonnes per annum
MTO	Material quantity take-offs
Mtpa	Million tonnes per annum

TERM	DEFINITION
MVA	Megavolt ampere
MW	Megawatt
MWh	Megawatt hours
MWhrs/yr	Megawatt hours per year
NAF	Non-acid forming
NAG	Net acid generation
NAPP	Net acid producing potential
NC Act	*Nature Conservation Act* 1992
NCR	Non-conformance report
NPAT	Nett profit after tax
NPI	Non-process infrastructure
NPV	Net present value
NVCP	Native vegetation clearing permit
OEM	Original equipment manufacturer
OMC	Optimum moisture content
OPEX	Operating expenditure
OPs	Operating cost packages
OSA	Overall slope angle
P&ID	Piping & instrumentation diagram
p/a	Per annum
P80	The diameter at which 80% of particles are passing
PAF	Potentially acid forming
PCS	Process control system
PDC	Process design criteria
PEP	Project execution plan
PFD	Process flow diagram
PFS	Pre-feasibility study
pH	Acidity measure
PHA	Process hazard analysis
PIMS	Plant information management system
PM	Preventable maintenance
PMF	Probable maximum flood
PSD	Particle size distribution
QA/QC	Quality assurance and quality control
RA	Restricted access

TERM	DEFINITION
RC	Reverse circulation (drilling technique)
RFQ	Request for Quotation
RL	Reduced Level
RLE	Rehabilitation Liability Estimate
RO	Reverse Osmosis
ROM	Run of Mine
SCADA	Supervisory Control and Data Acquisition
SDS	Safety Data Sheet
SG	Specific Gravity
Si	Silicon
SIA	Social Impact Assessment
SMP	Structural, Mechanical and Piping
t	Tonne
tpa	Tonnes per Annum
tph	Tonnes per Hour
t/m^3	Tonnes per Cubic Metre
t:t	Tonne:Tonne
TDS	Total Dissolved Solids
TEC	Threatened Ecological Communities
TML	Transportable moisture limit
TMP	Tailings management plan
tpa	Tonnes per annum
Tph	Tonnes per hour
TSF	Tailings storage facility
UCS	Uniaxial compressive strength
USD	American currency (dollar)
USGS	United States Geological Survey
VSD	Variable speed drive
WACC	Weighted average cost of capital
WBS	Work breakdown structure
WHIMS	Wet high intensity magnetic separation
WWTP	Wastewater treatment plant
yr	year
Zn	zinc

JORC Code, 2012 Edition – Table 1, Section 4

The following Table is sourced from the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition) (JORC Code 2012)) and presents the assumptions on which the Scoping Study is based.

For clarity, **this table is not being used to report Ore Reserves.** Instead, as per the ASX Interim Guidance: Reporting Scoping Studies dated November 2016, this table is being used as a framework to disclose underlying study assumptions.

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.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• No JORC Code (2012) Ore Reserve estimate has been classified or reported. • The Study is based on four broadly geologically consistent Mineral Resource Estimates (due to their close proximity) comprising: **Sandiego –** see AuKing ASX announcement 4 April 2022 **Onedin –** see AuKing ASX announcement 4 April 2022 **Mt Angelo North –** see Cazaly ASX announcement 31 January 2022 **Bommie –** see Cazaly ASX announcement 24 November 2022
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.*	• No site visits were undertaken by Competent Persons for the Study. • Competent Persons participated in site visits at the time of preparation of the original Mineral Resource Estimates. This was considered sufficient for the purposes of the Study.
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.*	• No Ore Reserves have been declared in the Study. • The Study is a Scoping Study only.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• Cut-off grades were calculated differently for the open pit and underground deposits based upon optimized inputs for the respective operations, with higher costs assumed for underground mining.
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).* • *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.*	• No Ore Reserve has been declared • Refer to Section 6 of the Study. • A conservative approach was taken for the pit slope angles. No geotechnical analysis was undertaken for the underground mining – instead, assumptions were made based on other mining operations in the geographical area. • No Mineral Resource model was used for pit and stope optimization.

Criteria	JORC Code explanation	Commentary
	• *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• Mining dilution – see Section 6.1.1 • Mining recovery factors – see Section 6.1.1 • Minimum mining widths – see Section 6.1.1 • Inferred Mineral Resources were utilized in accordance with the Mineral Resource Estimates for the respective deposits. For the first 8 years of proposed mining (at Sandiego, Mt Angelo North and Onedin) 89%, 100% and 58% respectively is in the Indicated Mineral Resource category and the balance is in the Inferred Mineral Resource Category. Accordingly, it is not considered that Inferred Resources are material to the financial outcomes. • For Infrastructure see below.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *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.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• Refer to Sections 7 and 8 of the Study. • The process of flotation of sulphidised ores is well known technology. • Significant bench scale metallurgical testwork was conducted on the Sandiego and Onedin ores as part of historical testwork carried out by Anglo Australian Resources between 2008 and 2011. Additional bench scale testwork was conducted on certain Sandiego and Mt Angelo North ores by separate independent laboratories • No assumptions are made for deleterious elements as most are expected to report to the tailings after the sulphides are floated off. • No bulk sample or pilot scale test work has been conducted. • N/A
Environmen-tal	• *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.*	• Refer to Sections 10.1 and 10.2 of the Study. Waste rock characterization will be undertaken as part of future studies. All overburden and tailings storage facilities sizes, locations and designs are at this time nominal and subject to change during the approvals process and/or following further and more advanced studies.
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.*	• Koongie Park is well served by road and power infrastructure, being situated just outside the Halls Creek township and nearby the Great Northern Highway. • Sufficient land is available within the Sandiego Mining Licence to accommodate the proposed infrastructure contemplated by the Study. • Accomodation facilities are likely to be located at Halls Creek. • A preliminary assessment of available water for mining and treatment

Criteria	JORC Code explanation	Commentary
		has indicated that there should be sufficient water for operations although it is proposed that a more detailed hydrological assessment be undertaken as part of future studies.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Project capital costs for the processing plant were factored from the Wave International engineering database using similar projects. See Section 12 of the Study. • Project operating costs are based off vendor inquiries, AuKing inputs and the Wave International database for similar operations. The OPEX has an accuracy of +/- 30-50%. • No allowances were made for the content of deleterious elements (see comments above re flotation process) • Exchange rate assumptions are based on internal AuKing and Wave International estimates • Transportation charges have been derived from the Wave International database • TC/RCs have been derived from the S&P Global database. Penalties for failure to meet specifications have not been modelled and will be assessed during later stages of feasibility studies. • Royalties of 5% to the WA government for the copper and zinc concentrates have been assumed. A 2.5% royalty for silver product has also been assumed. No provision was made for other royalties or related potential entitlements as the details of these are still the subject of future negotiations.
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 derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• Revenue factors have been assumed on concentrate sales based on the Mineral Resource Estimates as outlined above. • Commodity price assumptions are derived from research reports access by AuKing and/or conservative estimates assumed internally. • TC/RCs have been derived from the S&P Global database. • Transportation charges have been derived from the database of Wave International based on other operations in the region • A life of project exchange rate of 0.67 USD:AUD has been assumed on the basis of internal forecasts. • Commodity prices are assumed to be fixed over the life of the project as set out in the Study.
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.*	• By revenue, the principal products will be copper and zinc, with a primary by-product of silver. The markets for these products are well-established and likely to only be enhanced over the short- medium

Criteria	JORC Code explanation	Commentary
	• *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	term as the expanding trend towards electrification and green energy continues. In addition, the global copper industry is, on average, experiencing declining grades as resources are depleted, and relatively few major new discoveries in the past 15 years have been made to replace the deposits going offline. New projects can take many years from discovery to production compounding an already tight market for copper. • N/A • N/A • N/A
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.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• Refer to the economic analysis in Section 14 of the Study, which assumes a discount rate of 8% and nil inflation. • The economic analysis in Section 14 includes a sensitivity analysis on various cost factors, copper price and exchange rate.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• Given the history of exploration on the respective mining licences, together with more recent stakeholder engagement by AuKing, there are no issues expected around forming agreements with key stakeholders if so required to complete works as planned.
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 status of material legal agreements and marketing arrangements.* • *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.*	• No Ore Reserve has been declared • No naturally occurring risks have been identified although (as noted above) additional water access studies are intended during future studies. • No marketing agreements are in place. Under the Joint Venture agreement AuKing has with Astral Resources NL, it is likely that AuKing's interest in the Koongie Park project will increase to 100%, with Astral's interest reverting to a 1% net smelter royalty during the course of 2023 in accordance with a dilution formula. • All of the working areas in the Study (with the exception of Bommie) are on approved mining licences with no current issues or outstanding requirements with DMIRS. There are no third party unresolved matters that are likely to impact upon approvals. In the case of the Bommie deposit, mining activities are not intended until year 8 of the mining schedule by which time it is expected that any unresolved statutory or commercial issues have been settled.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.*	• No Ore Reserve is being reported as part of the Study.

Criteria	JORC Code explanation	Commentary
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• No ore Reserve is being reported as part of the Study
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 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.* • *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.* • *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.*	• No Ore Reserve has been declared • While AuKing has made every effort to be as accurate as possible, the Study is an early-stage project and as such has been completed only to a level of accuracy expected of a scoping study. • Metallurgical recoveries have been based on testwork data. • Costs have been derived largely from the comprehensive database of Wave International.