

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): February 21, 2023

METALS ACQUISITION CORP
(Exact name of registrant as specified in its charter)

Cayman Islands
(State or other jurisdiction
of incorporation)

001-40685
(Commission
File Number)

98-1589041
(IRS Employer
Identification No.)

Century House, Ground Floor
Cricket Square, P.O. Box 2238
Grand Cayman KY1-1107, Cayman Islands
(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: **(817) 698-9901**

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2 below):

- ☒ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- ☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- ☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Units, each consisting of one Class A ordinary shares, \$0.0001 par value, and one-third of one redeemable warrant	MTAL.U	New York Stock Exchange LLC
Class A ordinary shares included as part of the units	MTAL	New York Stock Exchange LLC
Redeemable warrants included as part of the units, each whole warrant exercisable for one Class A ordinary share at an exercise price of \$11.50	MTAL WS	New York Stock Exchange LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 8.01 Other Events

As previously disclosed in the Current Report on Form 8-K, on March 17, 2022, Metals Acquisition Corporation (the “Company”), Metals Acquisition Corp. (Australia) Pty Ltd and Glencore Operations Australia Pty Limited entered into a Share Sale Agreement, as amended by the Deed of Consent and Covenant, dated as of November 22, 2022 (as may be further amended, supplemented, or otherwise modified from time to time, the “Share Sale Agreement”), pursuant to which the Company will acquire the Cornish, Scottish and Australian mine (the “CSA Mine”) in Cobar, New South Wales, Australia.

Behre Dolbear Australia Pty Ltd, in consultation with Cube Consulting Pty Ltd and Jan Coetzee, has completed the updated technical report summary (the “TRS”), in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, for the CSA Mine. The TRS has an effective date of December 31, 2022.

A copy of the TRS is attached as Exhibit 96.1 hereto.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits:

Exhibit	Description
23.1	Consent of Behre Dolbear Australia Pty Ltd.
23.2	Consent of Cube Consulting Pty Ltd.
23.3	Consent of Jan Coetzee
96.1	Technical Summary Report – CSA Copper Mine – New South Wales – Australia.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Metals Acquisition Corp

Date: February 21, 2023

By: /s/ Michael James McMullen

Name: Michael James McMullen

Title: Chief Executive Officer

Level 9, 80 Mount Street
North Sydney, NSW 2060
Australia

CONSENT OF THIRD-PARTY QUALIFIED PERSON

Behre Dolebear Australia Pty Ltd (“BDA”), in connection with the Current Report on Form 8-K dated February 21, 2023 filed by Metals Acquisition Corp and any amendments or supplements and/or exhibits thereto (collectively, the “Form 8-K”) disclosing the Technical Report Summary (as defined below), consents to:

- the public filing and use of the technical report summary titled “Technical Summary Report – CSA Copper Mine – New South Wales - Australia, effective as of December 31, 2022, by Behre Dolbear Australia Minerals Industry Consultants and other qualified persons,” (the “Technical Report Summary”), with an effective date of February 21, 2023, and that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 8-K;
- the use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission), in connection with the Form 8-K and any such Technical Report Summary; and
- the information derived, summarized, quoted or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of and/or that was reviewed and approved by us, that is included or incorporated by reference in the Form 8-K.

BDA is responsible for authoring, and this consent pertains to, the entirety of the Technical Report Summary, except for Section 9.4.

Dated this February 21, 2023

/s/ Malcolm C Hancock

Malcolm C Hancock
Executive Director and Authorized Person for
Behre Dolbear Australia Pty Ltd,
a Qualified Third-Party Firm

/s/ John S McIntyre

John S McIntyre
Managing Director and Authorized Person for
Behre Dolbear Australia Pty Ltd,
a Qualified Third-Party Firm

Level 4, 1111 Hay Street
West Perth, WA 6005
Australia

CONSENT OF THIRD-PARTY QUALIFIED PERSON

Cube Consulting Pty Ltd (“Cube”), in connection with the Current Report on Form 8-K dated February 21, 2023 filed by Metals Acquisition Corp and any amendments or supplements and/or exhibits thereto (collectively, the “Form 8-K”) disclosing the Technical Report Summary (as defined below), consents to:

- the public filing and use of the technical report summary titled “Technical Summary Report – CSA Copper Mine – New South Wales - Australia, effective as of December 31, 2022, by Behre Dolbear Australia Minerals Industry Consultants and other qualified persons,” (the “Technical Report Summary”), with an effective date of February 21, 2023, and that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 8-K;
- the use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission), in connection with the Form 8-K and any such Technical Report Summary; and
- the information derived, summarized, quoted or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of and/or that was reviewed and approved by us, that is included or incorporated by reference in the Form 8-K.

Cube is responsible for authoring, and this consent pertains to, Section 9.4 of the Technical Report Summary.

Dated this February 21, 2023

/s/ Mike Job

Mike Job
Executive Director and Authorized Person for
Cube Consulting Pty Ltd,
a Qualified Third-Party Firm

/s/ Rebecca Prain

Rebecca Prain
Managing Director and Authorized Person for
Cube Consulting Pty Ltd,
a Qualified Third-Party Firm

3rd Floor, 44 Esplanade, St.
St. Helier, Jersey, JE49WG

CONSENT OF QUALIFIED PERSON

Jan Coetzee, in connection with the Current Report on Form 8-K dated February 21, 2023 filed by Metals Acquisition Corp and any amendments or supplements and/or exhibits thereto (collectively, the “Form 8-K”) disclosing the Technical Report Summary (as defined below), consents to:

- the public filing and use of the technical report summary titled “Technical Summary Report – CSA Copper Mine – New South Wales - Australia, effective as of December 31, 2022, by Behre Dolbear Australia Minerals Industry Consultants and other qualified persons,” (the “Technical Report Summary”), with an effective date of February 21, 2023, and that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 8-K;
- the use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission), in connection with the Form 8-K and any such Technical Report Summary; and
- the information derived, summarized, quoted or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of and/or that was reviewed and approved by us, that is included or incorporated by reference in the Form 8-K.

Mr. Coetzee is responsible for authoring, and this consent pertains to, the Mineral Reserve estimate in the Form 8-K.

Dated this February 21, 2023

/s/ Jan Coetzee

Jan Coetzee
Officer of
Metals Acquisition Limited,
a Qualified Person



Minerals Industry Consultants

Level 9, 80 Mount Street
North Sydney, NSW 2060
Australia

Tel: 612 9954 4988
Fax: 612 9929 2549
Email: bdaus@bigpond.com

TECHNICAL REPORT SUMMARY

CSA COPPER MINE – NEW SOUTH WALES – AUSTRALIA

**S-K 1300 REPORT PREPARED FOR
METALS ACQUISITION CORPORATION**

**BEHRE DOLBEAR AUSTRALIA PTY LIMITED
21 FEBRUARY 2023**

Denver

New York

Toronto

London

Guadalajara

Santiago

Sydney

DATE AND SIGNATURE PAGE

This Technical Report Summary was prepared by Behre Dolbear Australia Pty Limited for Metals Acquisition Corporation (“MAC”). Mr. Mike Job of Cube Consulting Pty Limited, West Perth, acted as Qualified Person (“QP”) for the Mineral Resource estimate and Mr. Jan Coetzee of MAC acted as Qualified Person for the Mineral Reserve estimate.

The contributes of each group to this Technical Report Summary is shown in the table below.

Consulting Group	Author	Sections	Signature
Behre Dolbear Australia	Mark Faul	1, 2, 3, 4, 5, 13, 16, 18, 19, 20, 21, 22, 23, 24, 25	Signed
	George Brech	6	Signed
	Rolly Nice	10, 14	Signed
	Richard Frew	15	Signed
	Adrian Brett	17	Signed
Cube Consulting	Mike Job	7, 8, 9 and 11	Signed
Metals Acquisition Corp.	Jan Coetzee	12	Signed

BEHRE DOLBEAR

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GLOSSARY OF TERMS AND ABBREVIATIONS

Term/Abbreviation	Description
A\$	Australian Dollar
Ag	Silver
ALS	Australian Laboratory Services
AMC	AMC Consultants Pty Ltd
ANCOLD	Australian National Committee on Large Dams
AEMR	Annual Environmental Management Report
Au	Gold
AuriCula	AuriCula Mines Pty Limited
Ausenco	Ausenco Pty Limited
BBE	BBE Consulting (Australasia)
BDA	Behre Dolbear Australia Pty Limited
Behre Dolbear	Behre Dolbear & Company Inc.
CDA	Canadian Dam Association
CHF	Cemented Hydraulic Fill
CMPL	Cobar Management Pty Limited
CPF	Cemented Paste Fill
CRF	Cemented Rock Fill
CSA	CSA Copper Mine
CSC	Cobar Shire Council
CTD	Central Tailings Discharge
Cu	Copper
Cube	Cube Consulting Pty Limited
DHEM	Drill Hole Electromagnetic (Survey)
DIDO	Drive-in Drive-out
DPIE	Department of Planning Infrastructure and Environment (in NSW)
EL	Exploration Licence
EMP	Environmental Management Plan
EMS	Environmental Management System
EPA	Environmental Protection Agency (in NSW)
EP&A Act	Environmental Planning and Assessment Act (in NSW)
FAR	Fresh Air Raise
FIFO	Fly-In Fly-Out
FOS	Factor of Safety
FW	Footwall
G&A	General and Administration
Glencore	Glencore Public Limited Company
g/t	Gram Per Tonne
GSM	Golden Shamrock Mines Pty Limited
ha	Hectare (10,000m ²)
Helix	Helix Resources Limited
HPIFR	High Potential Injury Frequency Rate
HW	Hangingwall
ITASCA	ITASCA Australia Pty Limited
JORC Code	Joint Mineral Reserve Committee (Australasian Resource/Reserve Code)
JV	Joint Venture
km	Kilometre
km ²	Square Kilometre
ktoz	Thousand Troy Ounces
kt	Thousand Tonnes
ktpa	Thousand Tonnes per Annum
kV	Kilovolts
lb	Pound
LFB	Lachlan Fold Belt
LHD	Load-Haul-Dump (Mining Units)
LHOS	Long Hole Open Stopping
LOA	Life of Asset (Resource Estimate or Financial Model)
LOM	Life of Mine
LTIFR	Lost Time Injury Frequency Rate
m	Metre
m ³ /s	Cubic Metres Per Second
µm	Micron

GLOSSARY – ABBREVIATIONS USED CONTINUED

Term/Abbreviation	Description
M	Million
MAC	Metals Acquisition Corporation
mbs	Metres Below Surface
ML/day	Megalitres per Day
MLpa	Megalitres per annum
MII	Measured, Indicated and Inferred (Mineral Resources)
mm	Millimetre
MNE	May Not Exist (Material in Mining Inventory)
MPa	Mega Pascal
MPL	Mining Purpose Lease
MRE	Mineral Resource Estimate
Mt	Million Tonnes
Mtpa	Million Tonnes Per Annum
MVA	Megavolt Ampere
MW	Megawatt
MWBAC	Megawatt Bulk Air Cooling
MWE	Megawatt Equivalent
NAF	Non-Acid Forming
NC	Non-Classified (Material in Mining Inventory)
NIR	Not In Reserve (Material in Mining Inventory)
NNE	North-Northeast
NNW	North-Northwest
NRAR	Natural Resource Access Regulator (in NSW)
NSR	Net Smelter Return
NSW	New South Wales
NTSF	Northern Tailings Storage Facility
OK	Ordinary Kriging
OR	Mineral Reserves
Oxley	Oxley Exploration Pty Limited
P80	80% Passing
PAF	Potential Acid Forming
Q	Quarter (year)
QA/QC	Quality Assurance/Quality Control
QP	Qualified Person
QPE	Quattro Project Engineering
QTSC	QTS Central (Deposit)
QTSN	QTS North (Deposit)
QTSS	QTS South (Deposit)
RAR	Return Air Raise
RC	Reverse Circulation
RL	Relative Level
RQD	Rock Quality Designation
SAG	Semi-Autogenous Grinding (Mill)
SAP	SAP Business Management System
SEC	United States Securities and Exchange Commission
S-K Report	SEC Regulation S-K Technical Report
STSF	Southern Tailings Storage Facility
t	Tonne (1,000 Kilograms)
t/m3	Tonnes per Cubic Metre
the Transaction	1.5% Copper NSR Royalty to Glencore
Transaction Agreement	Definitive Sale and Purchase Agreement
TRIFR	Total Recordable Injury Frequency Rate
TSF	Tailings Storage Facility
US\$	US Dollar
VDR	Virtual Dataroom
WB	Wet Bulb (Temperature)
wmt	Wet Metric Tonne

1 EXECUTIVE SUMMARY

1.1 Summary

Behre Dolbear Australia Pty Limited (“BDA”) was engaged by Metals Acquisition Corp. (“MAC” or the “Company”) to prepare an independent Technical Report Summary (“Technical Report” or the “Report”) on the CSA Copper Mine (“CSA” or the “Project”), located in western New South Wales, 11 kilometres (“km”) northwest of the town of Cobar, Australia.

The purpose of this Technical Report is to report the Mineral Reserve Estimate and Mineral Resource Estimate for CSA, both of which have an effective date of December 31st, 2022. This report has an effective date of February 21st, 2023.

This Technical Report Summary conforms to United States Securities and Exchange Commission’s (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations and Item 601 (b)(96) Technical Report Summary (collectively “S-K 1300”).

1.2 Property Description, Ownership and Mineral Rights

The CSA Copper Mine is located in western New South Wales, Australia, (latitude 31° 24’ 32.42”S, longitude 145° 48’ 0.20”E), 11 kilometres (“km”) northwest of the town of Cobar and 600km west-northwest of Sydney (Figure 1).

Cobar Management Pty Ltd (“CMPL”) is the Australian legal entity and operator of CSA mine. CMPL is the registered owner of all key assets of the mine including property, mineral, fixed and mobile assets used in the operation. CMPL is ultimately owned by Glencore International AG (“Glencore” or “GIAG”) who, on 17 March 2022, entered into a binding sale and purchase agreement to sell CMPL to MAC.

CMPL holds a Mining Lease (CML5) over the CSA deposit, surrounded by two Exploration Licences (EL5693 and EL5983) and one Exploration Licence Application (ELA6565) (Figure 2). CMPL also has joint venture exploration interests in exploration areas to the south of Cobar (Figure 2). CML5 covers an area of approximately 24.7 square kilometres (“km²”), while the surrounding EL5693 and EL5983 cover approximately 366km² and ELA6565 covers approximately 138 km². Ore is produced principally from two steeply dipping underground mineralised systems, QTS North (“QTSN”) and QTS Central (“QTSC”) from depths generally between 1,500- 1,800 metres (“m”) below surface. The current depth of the decline is around 1,900m. CMPL mining operations average around 1.1 million tonnes of ore per annum (“Mtpa”). The underground mine is serviced by two hoisting shafts and a decline. The ore is crushed underground, hoisted to surface, and milled and processed through the CSA concentrator.

1.3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

All-weather access to the CSA mine is provided via sealed highways and public roads, and the mine is linked by rail to the ports of Newcastle and Port Kembla, a suburb of Wollongong, from where the copper concentrate product is exported. Cobar is serviced by a sealed airstrip with commercial flights to and from Sydney.

The climate of Cobar is semi-arid with evaporation typically exceeding rainfall by a ratio of 6:1. The mean annual rainfall for Cobar is approximately 400mm. During summer months, maximum temperatures typically range between 28-39°C and during the winter months, maximum temperatures typically range between 13-20°C. Minimum temperatures in the winter months typically range between 5-9°C.

The project is well served by existing infrastructure which includes power supply, water supply, site buildings, and service facilities. Power is supplied to the site from the state energy network via a 132 kilovolt (“kV”) transmission line. Further backup power for the site is supplied by diesel power generators.

The majority of the water supply for the operation is provided by the Cobar Water Board from a weir on the Bogan River at Nyngan (Figure 1) through a network of pumps and pipelines. Additional water is available from tailings water recycling, surface water capture, and an installed borefield.

1.4 History

The CSA mine has a long operating history, with copper mineralisation first discovered in 1871. Early development commenced in the early 1900s, focussing on near surface mineralisation. In 1965, Broken Hill South Limited developed a new mechanised underground mining and processing operation, with new shafts, winders, concentrator, and infrastructure; subsequently, it operated under several different owners, until the property was acquired by GIAG in 1999. The direct owner and operator of the mine is Cobar Management Pty Ltd (CMPL), a wholly owned subsidiary of Glencore and the entity to be acquired by MAC.

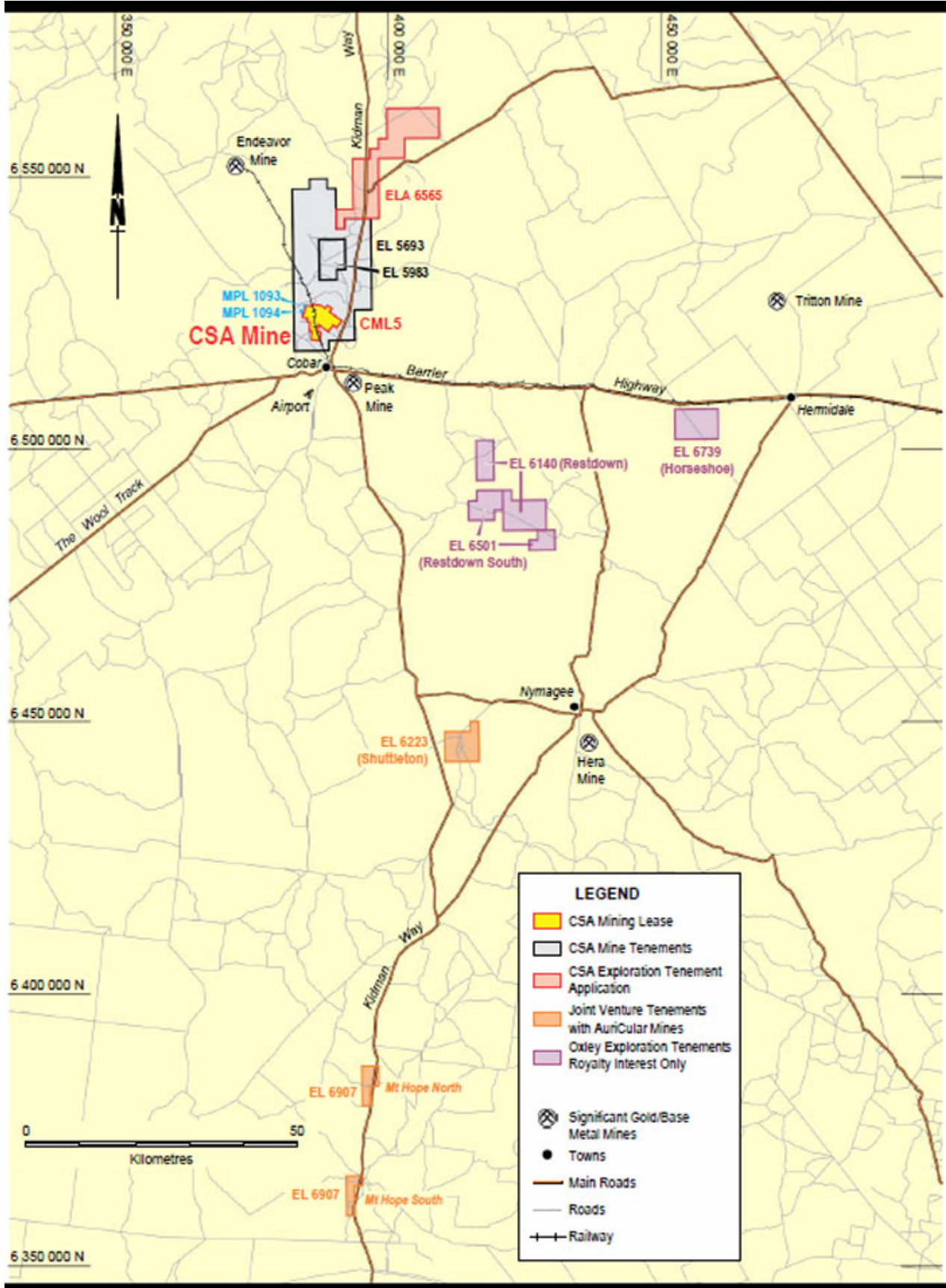


Metals Acquisition Corp.

CSA Mine

Figure 1
BDA - 0230-02-Feb. 2023

LOCATION PLAN
Behre Dolbear Australia Pty Ltd



Metals Acquisition Corp.

CSA Mine

Figure 2
BDA - 0230-02-Feb. 2023

CSA MINE TENEMENTS AND JOINT VENTURE TENEMENTS
Behre Dolbear Australia Pty Ltd

1.5 Geological Setting, Mineralisation and Deposit

The CSA deposit is located within the Cobar mineral field in the Cobar Basin, a north-south mineralised belt containing copper, gold, and lead-zinc mineralisation, with five currently operating mines within 80km of Cobar (Figure 2). Mineralisation at the CSA mine is hosted within the Silurian-age CSA Siltstone, a steeply dipping sequence of interbedded siltstones and sandstones. Mineralisation is associated with north-south faulting and northwest cross-cutting structures; studies indicate that reactivation of the faults played a significant role in providing fluid pathways for mineralising fluids and dilational zones for the formation of the mineral deposits.

The CSA mineralisation occurs in five known systems: Eastern, Western, QTS North ("QTSN"), QTS Central ("QTSC") and QTS South ("QTSS") (Figure 3). Within these systems multiple lenses occur; lenses are typically 5-30m wide, with relatively short strike lengths (<300m) but significant down plunge extent of up to 1000m. Not all the systems extend to surface; QTSN which accounts for the bulk of the current production tonnes is developed from 600m depth while QTSC is developed from a depth of around 1,200m.

The dominant copper sulphide is chalcopyrite (CuFeS_2); silver is also present as acanthite (Ag_2S).

1.6 Exploration

The CSA deposit was discovered in 1871 with a further discovery of copper-rich ore in 1905, however, a slump in metal prices and an underground fire led to the closure of the mine in 1920. Zinc Corp Ltd (through its subsidiary Enterprise Exploration) explored the area from 1947 to 1957 and commenced re-development work in 1952. Cobar Mines Pty Ltd was created in 1956, mining recommenced in 1962 and production commenced in 1965 from the Eastern (Cu-Zn) and Western (Pb-Zn-Ag) System lenses.

The QTS System was discovered in the mid-1970s with the QTS North lenses being the main source of the copper ore at the time. CMPL came under the ownership of Conzinc Riotinto of Australia ("CRA") in 1980, Golden Shamrock Mines ("GSM") in 1993 and Glencore in 1999. During this time, there has been ongoing periods of geochemical and geophysical data acquisition, shallow RC drilling and deeper diamond drilling.

The CSA deposit has been drilled using fully cored diamond drill holes drilled either from surface or underground, primarily using NQ size (47.6mm diameter core). The deposits have been defined by over 6,500 holes totalling approximately 900km of core, although data from many of the historical drill holes is not used for current resource estimation, being located in the upper mined out levels of the deposit; current resource estimates are based on approximately 3,900 drill holes and more than 39,000 samples. Underground diamond drilling over the last five years has averaged 22,000m per year, with rates of 24-25,000m per year achieved over the last two years.

1.7 Sample Preparation, Analysis and Security

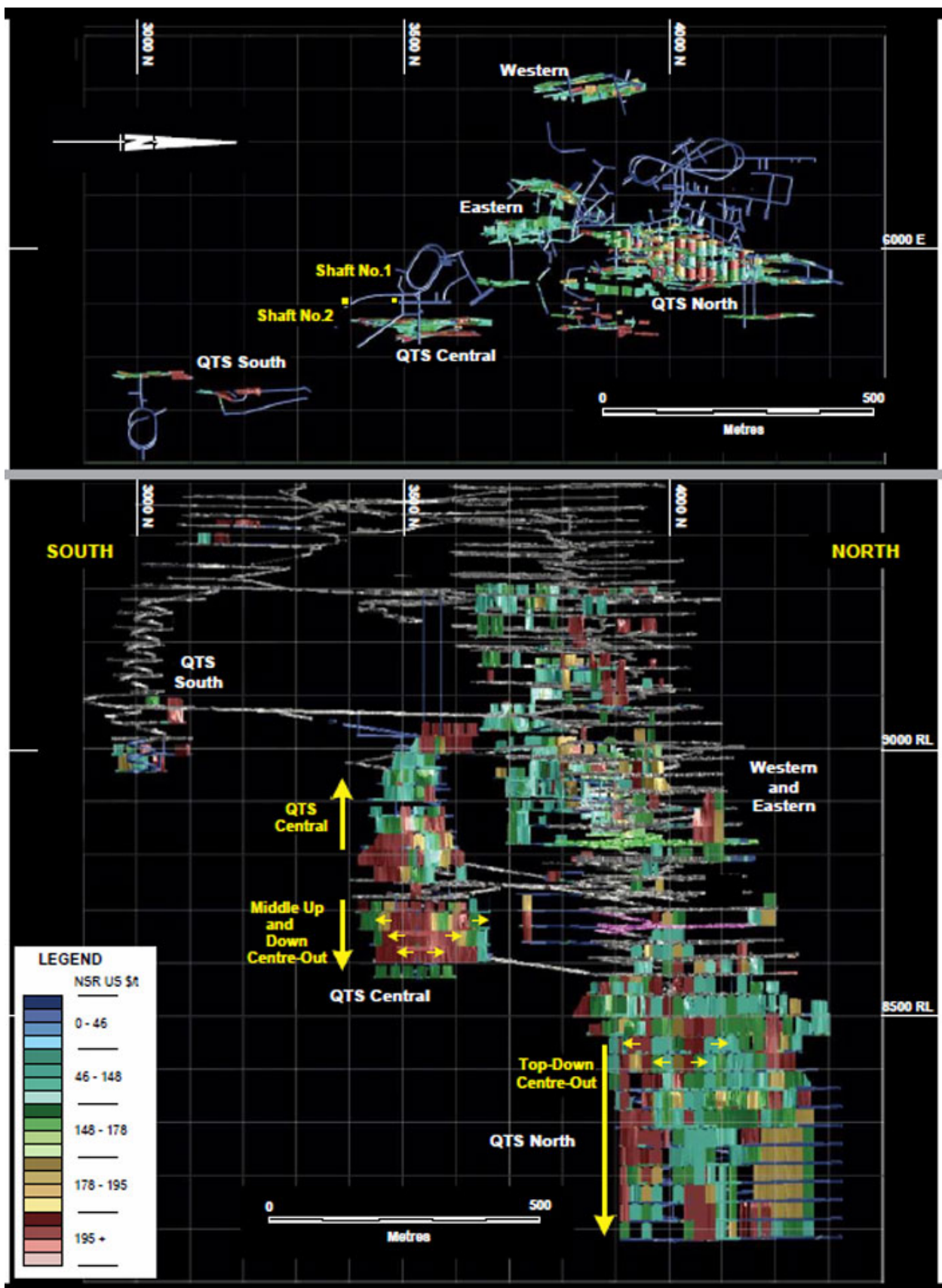
Sample preparation and assaying is carried out by independent laboratory, Australian Laboratory Services ("ALS") in Orange, NSW, using an aqua regia digest and the Inductively Coupled Plasma Atomic Emission Spectrometry ("ICP-AES") analytical method, with analysis for a standard suite of elements including copper, zinc, lead, and silver. Quality Assurance/Quality Control ("QA/QC") protocols have been comprehensive since 2004 and include insertion of standards (supplied by Ore Research and Exploration Pty Limited), blanks and duplicate samples at a frequency of approximately 1 in 30 samples. CSA monitors QA/QC data; the sampling and assaying data for the main elements are considered reliable and without material bias and sample security arrangements are appropriate and satisfactory.

1.8 Data Verification

Basic database validation checks are carried out by CMPL personnel. These included sample from and to depths, geology depths, record duplication and missing collar duplication checks, as well as collar survey and down hole survey checks. Assay certificates were verified against the acQuire database dispatch and laboratory job numbers. Extensive random checks of the digital database were made against hardcopy/pdf format assay certificates and geology logs. Core recovery is generally greater than 95%.

1.9 Mineral Processing and Metallurgical Testing

With 55-years of operating history (23-years under Glencore ownership), the CSA orebody mineralogy and the operating performance of the processing plant is well understood, with the processing plant consistently achieving metallurgical recoveries in the order of 97-98% to produce a high-quality 26-27% Cu concentrate. Other than routine day-to-day process performance monitoring and improvement on the internal metallurgical models, no metallurgical testwork is generally undertaken or warranted unless new styles of mineralisation are encountered.



Metals Acquisition Corp.

CSA Mine

Figure 3

PLAN AND LONG SECTION - MINERALISED SYSTEMS

BDA - 0230-01-April 2022

Behre Dolbear Australia Pty Ltd

1.10 Mineral Resource Estimates

The Mineral Resource estimate for the CSA Mine is reported here in accordance with the SEC S-K 1300 regulations. The Mineral Resources presented in this section are not Mineral Reserves and do not reflect demonstrated economic viability. The reported Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that all or any part of this Mineral Resource will be converted into Mineral Reserve. All figures are rounded to reflect the relative accuracy of the estimates and totals may not add correctly. Mineral Resource estimates exclusive of Mineral Reserves are summarized in Table 1.1. on a 100% ownership basis. The effective date of the Mineral Resource estimate is December 31, 2022.

Table 1.1

Copper and Silver Mineral Resources Exclusive of Mineral Reserves as of 31 December 2022 - Based on a Copper Price of US\$7,400/t

System	Resource Category	Tonnes Mt	Cu %	Cu Metal Kt	Ag g/t	Ag Metal Mtoz
All Systems	Measured	0.0	0.0	0.0	0.0	0.0
	Indicated	0.0	0.0	0.0	0.0	0.0
	<i>Meas + Ind</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
	Inferred	3.5	5.6	193	20	2.2
	Total	3.5	5.6	193	20	2.2

Notes:

- Mineral Resources are reported as of 31 December 2022 and are reported using the definitions in Item 1300 of Regulation S-K (17 CFR Part 229) (SK1300);
- Mineral resources are reported Excluding Mineral Reserves;
- The Qualified Person for the estimate is Mike Job, of Cube Consulting Pty Ltd;
- Price assumptions used in the estimation include US\$7,400/tonne of copper and US\$21.70/ troy ounce of silver; the copper price is an approximate 9% discount to consensus copper pricing as at Feb 1, 2023;
- Geological mineralisation boundaries defined at a nominal 2.5% Cu cut off;
- Metallurgical recovery assumptions used in the estimation were 97.5% copper recovery and 80% silver recovery;
- Mineral Resources reported as dry, raw, undiluted, in-situ tonnes;
- Costs assumptions during cut-off grade calculation are A\$98/t ore mined, A\$20/t ore milled and A\$19/t G&A;
- Figures are subject to rounding.

Approximately 73% of the current Mineral Resource tonnage and 78% of the contained copper lies within the QTSN and QTSC systems.

1.11 Mineral Reserve Estimate

CSA produces an annual Mineral Reserve estimate, based on actual stope designs incorporating mining losses and mining dilution. The Mineral Reserve, in accordance with the Subpart 229.1300 of Regulation S-K, is based on Measured and Indicated resources only. CSA's December 2022 Mineral Reserve estimate is shown in Table 1.2.

Table 1.2

Copper and Silver Mineral Reserves as of 31 December 2022 - Based on a Copper Price of US\$7,400/t

System	Reserve Category	Tonnes Mt	Cu %	Cu Metal Kt	Ag g/t	Ag Metal Mtoz
All Systems	Proven	4.8	4.3	208.8	17.8	2.8
	Probable	3.1	3.5	105.3	13.5	1.3
	Total	7.9	4.0	314.1	16.1	4.1

Notes:

- Mineral Reserves are reported as of 31 December 2022 and are reported using the definitions in Item 1300 of Regulation S-K (17 CFR Part 229) (SK1300);
- The Qualified Person for the estimate is Jan Coetzee, an officer of the Registrant's Australian subsidiary;
- Price assumptions used in the estimation include US\$7,400/tonne of copper and US\$21.70/ troy ounce of silver; the copper price is an approximate 9% discount to consensus copper pricing as at Feb 1, 2023;
- Mineral Reserves reported as dry, diluted, in-situ tonnes using a Stope breakeven cut-off grade of 2.2% Cu and a Development breakeven cut-off grade of 1.0% Cu;
- Costs assumptions during cut-off grade calculation are A\$98/t ore mined, A\$20/t ore milled and A\$19/t G&A;
- Metallurgical recovery assumptions used in the estimation were 97.5% copper recovery and 80% silver recovery;
- Figures are subject to rounding.

BDA notes that Mineral Reserve underpins an estimated six-and-a-half-year mine life.

1.12 Mining Methods

The CSA mine uses mechanised long-hole open stoping (“LHOS”) with cemented paste fill (“CPF”) as the preferred mining method. A modified Avoca stoping method has been used successfully in the narrower lenses (principally QTSC). The future dominance of the QTSN orebodies, representing approximately 70% of the currently estimated Mineral Reserve, creates some concentration risk. Estimated Mineral Resources, identified by Cube, in the other orebodies and remnant areas of the mine create contingent ore sources. One of the critical aspects to achieving production objectives is prioritising and increasing the mine development and available access to drilling and extraction horizons.

Copper production at the CSA mine is currently mine-constrained. Considerable effort in recent years, and the current capital expenditure programmes underway, are all aimed at maximising ore production as the mine gets deeper. MAC is targeting future ore production of approximately 1.2Mtpa, but increasing depth introduces additional mining challenges, increased mining costs and also some lowering of delivered grades.

With the mine progressively becoming deeper, rock stresses are increasing, and more ventilation and cooling was required. A significant capital works program was completed in 2022 to increase both ventilation and cooling to accommodate the current LOM plan. In addition, the current resource estimate demonstrates that the mineralization tonnes per vertical metre are diminishing with depth. Importantly, with increasing depth, travel times for employees and equipment increase and issues around ore and waste movement from the lower levels of the mine to the hoisting shaft or distant stope voids (in the case of waste rock) require more closely coordinated planning and management.

Despite the combination of geotechnical stress increasing with depth and the cleaved and bedded siltstones, ground conditions at the current base of the mine appear fair. A recent rockfall towards the bottom of the decline, convergence and buckling in some development drives, and issues with a recent vent raise, are not unexpected. Changes to stope design and sequencing as well as positioning of access drives, declines and ventilation infrastructure and ground support practices are all being reassessed in light of the geotechnical conditions, and improvements can and are being made.

The mining operation needs to be geotechnically driven; a move to mining quality over quantity is required to match the geotechnical conditions and logistical challenges that come from mining at depth.

1.13 Processing and Recovery Methods

The CSA processing plant is a conventional underground crush, surface grind and flotation circuit. The grinding mills, especially the Semi Autogenous Grinding (“SAG”) mills, which are around 50 years old, as well as the coarse ore bins (which date from the 1960s), are causing downtime problems. The proposed changeout of the old SAG mill units with new units would return the grinding circuit overall utilisation to 91-93%, with one mill change out completed in 2022 and the second mill changeout scheduled for 2023. With this planned grinding mill update, BDA would expect throughput of 1.4Mtpa to be possible, but notes that mill throughput is still likely to be restrained by the ability of the mining operation to increase the mined ore tonnage.

BDA considers the metallurgical performance at CSA to be good, with consistently high copper recoveries and reasonable copper concentrate grades and payable silver grades. Based on the consistency of ore feed and metallurgy over the years there is no reason to consider this performance will not be maintained.

1.14 Infrastructure

Road access to the mine site from Sydney is via National Highway No. A32, the Barrier Highway, a high-quality rural highway to Cobar and from there to the mine site on sealed urban roads.

Cobar is serviced by a sealed airstrip with commercial flights three times per week to and from Sydney.

The site is serviced by a rail line which allows transport of concentrate product to the Port of Newcastle for export. Concentrate is loaded into rail wagons at the site and railed to Newcastle along the NSW rail network. Railing to Port Kembla, south of Wollongong, is also an option.

Power supply to the site is via a 132kV transmission line from Essential Energy’s western NSW network. The Essential Energy network is supplied by a mix of conventional and renewable power generation. A 22kV line is also connected to the site from Cobar and is available for limited supply in emergencies. Further backup power is supplied by diesel power generators.

The majority of water supply for the operation is provided by the Cobar Water Board from a weir on the Bogan River at Nyngan through a network of pumps and pipelines. Additional water is available from tailings water recycling, surface water capture and a borefield installed in 2019. Water demand is around 3 megalitres per day (“ML/day”) in summer, with most water supplied by the Cobar Water Board system. The Cobar Water Board system is adequate to supply the operation up to around 1.2Mtpa; the borefield is only required during periods of drought or should a plant feed rate in excess of 1.2Mtpa be considered for extended periods.

The majority of the workforce is accommodated in Cobar with some senior staff employed on a fly in/fly out (“FIFO”) or drive in/drive out (“DIDO”) arrangement. No workforce accommodation is provided at the mine site.

Site buildings comprise site offices, warehouses, and services buildings. Site services include power and water reticulation facilities, communications systems and fuel storage and dispensing facilities.

South Tailings Storage Facility (“STSF”)

The STSF average deposition rate is 55kt per month. At the current rate, based on the latest Lift 9 embankment raise, the STSF has capacity to store tailings up to December 2024. Further embankment raises, Lift 10 and Lift 11, are planned to be designed and permitted within the next 12 months and Lift 10 constructed before mid-2024. Lift 10 is expected to have sufficient capacity to the end of the reserve LOM.

The STSF appears to be well operated with no significant issues in relation to the facility’s integrity. CSA has commenced a study to install buttressing in specific areas on the STSF wall to improve the Factor of Safety (“FOS”) to the Post Seismic (Liquified Strength). The current early phase estimate to rectify the FOS is approximately A\$5M and is expected to be completed in 2023.

Waste Rock

Waste rock from underground development is backfilled into mined out stopes where possible, but any excess is hoisted or trucked to surface for storage on waste dumps. Most waste rock is classified as Non-Acid Forming (“NAF”) but around 30% of the waste material is classified as Potential Acid Forming (“PAF”) rock. All waste rock materials are geochemically tested for issues related to acid rock drainage (“ARD”) and potential for metal leaching. Only suitable, low risk waste rock material is hoisted and stockpiled on the surface.

1.15 Market Studies

According to analysis conducted by global research and consultancy group Wood Mackenzie, the world usage of refined copper has more than tripled in the last 50 years thanks to expanding sectors such as electrical and electronic products, building construction, industrial machinery and equipment, transportation equipment, and consumer and general products. Because of its properties, copper has become a major industrial metal, ranking third after Fe and aluminium in terms of quantities consumed.

The copper market in which CMPL operates is a deep, liquid market where copper is traded globally in both cathode and concentrate formats. CMPL operates within the global copper industry and faces competition from other copper producers for its main product.

The cost of turning copper and silver in concentrate into final usable copper and silver is expressed in the smelter charges set annually between the major copper producers and major Asian and European smelters.

These charges rise and fall depending on the global supply and demand for copper as well as the freight costs relative to other producers.

Due to the steadily increasing presence of new, low-quality concentrates (containing higher deleterious elements), a bifurcated market for concentrates is occurring, with the smelter terms for high-quality concentrate (containing lower deleterious elements) being appreciably more favourable to the miner than for the concentrate with higher deleterious elements. High-quality concentrate is increasingly in demand to be used as blending feedstock material and it is expected that this divergence of smelter terms will continue and likely increase as more of the less desirable, low-quality concentrate comes to market.

The concentrate produced at CSA is a high-quality product, with no deleterious elements above penalty levels and is highly sought after for blending with other concentrates.

Smelter terms are typically settled on an annual ‘Benchmark’ basis between major miners and smelters and published as a reference Benchmark. In addition, smelters often purchase concentrate on the spot market which is more reflective of the short-term supply and demand balance.

As part of MAC's binding sale and purchase agreement with GIAG, MAC has entered into an agreement to sell all concentrate product from the CSA mine to GIAG (the "Offtake Agreement"). The Offtake Agreement for the CSA mine commits 100% of the produced concentrate for the life of mine to GIAG, as the sole customer. The offtake terms are referenced to the annual Benchmark terms set by the industry and published annually, and are therefore considered market competitive.

Broker consensus recommendation pricing ("Broker Consensus" or "Consensus") for future copper pricing is regularly updated by analysts as their views change on supply, demand and other factors such as the political/social instability of major copper producing countries and the time and cost of bringing new supply online. In general, there is a view that copper prices are well supported by the expected increase in demand on copper products, driven by electrification of transport and energy transition to renewables.

The copper price utilized by the Company in its assessment of Mineral Resources, Mineral Reserves and associated economic analysis is US\$7,400/t. This price represents a 9% discount to the long-term, real, Broker Consensus copper price outlined and is therefore considered a conservative approach to the assessments.

1.16 Environmental Studies, Permitting and Plans, Negotiations or Agreements

CSA operates under a documented Environmental Management System ("EMS") which forms the basis of environmental management at CSA mine and includes appropriate procedures, standards, and Environmental Management Plans ("EMP") to ensure all regulatory requirements are met.

The planned future STSF containment raises, Lifts 10, and the potential Lift 11, have commenced early phase planning to provide additional storage capacity. Regulatory standards that currently apply to the STSF are Dam Safety NSW, Australian National Committee on Large Dams ("ANCOLD") and the Glencore Protocol 14.

There is strong community support for the CSA operation and CSA has a positive working relationship with Cobar Shire Council ("CSC"). This is not unexpected given that the CSA mine is the largest employer in the Cobar region, with approximately 500 employees and contractors.

1.17 Capital and Operating Costs

Capital works for which capital costs have been estimated generally comprise:

- underground mining capital works, including upgrading of the ventilation and cooling facilities, maintenance of fixed and mobile plant, exploration and resource drilling, and replacement of major equipment
- upgrading the grinding circuit in the concentrator and on-going sustaining capital for the concentrator
- capitalised underground development
- rehabilitation of project facilities at the end of the mine life.

The MAC forecast costs for capital works over the life of the mine are summarised in Section 18. For the majority of the significant capital works in the early years, the estimates are based on feasibility study standard engineering and unit costs from quotations from prospective suppliers and contractors or historical cost records. The estimates for the later years will have a higher level of confidence as the projects move forward in the LOM. Capital estimates for 2023 are A\$63.4M and for 2024, A\$50.2M. It is understood that the estimates for the major capital works include contingency allowances of around 10%.

Actual site operating cost were US\$1.39/lb Cu produced in 2021 for 1.07Mt milled. For 2022, actual site operating costs were US\$1.84/lb Cu for 1.03Mt milled.

The MAC forecast operating costs are based on 2022 actual cost for a similar level of forecast annual production, BDA considers this to be a reasonable estimate of future costs. With planned productivity improvements, BDA recognised that there is scope for cost improvement beyond those forecast.

1.18 Economic Analysis

This section contains forward-looking information related to economic analysis for the Project. The material factors that could cause actual results to differ materially from the conclusions, estimates, designs, forecasts or projections in the forward-looking information include any significant differences from one or more of the material factors or assumptions that were set forth in this sub-section including estimated capital and operating costs, project schedule and approvals timing, availability of funding, projected commodities markets and prices.

All costs, prices, and monetary values are in Q4 2022 United States Dollars (US\$).

The economic analysis on CSA was conducted based on a mine design and schedule of the copper ore outlined in the Mineral Reserves ("Reserve Case"). A Discounted Cashflow ("DCF") model was developed for this Reserve Case using copper and silver product prices of US\$7,400/t and US\$21.7/ troy oz, respectively. The Company elected to take a conservative approach to the economic evaluation and has applied a 9% discount to the long-term, real, Broker Consensus copper price outlined in Section 16.3.

The QP is of the opinion that these prices reasonably reflect a conservative view of current market prices and are reasonable to use as forecast future prices for the purpose of the economic analysis for this Study.

The discounted cashflow establishes that the Mineral Reserves estimate provided in this report are economically viable. The base case after-tax NPV is estimated to be US\$566M. The Net Present Value for this study is most sensitive to copper price.

Given the extent of historical operations and operating knowledge at CSA, the QP considers the accuracy and contingency of cost estimates used to be well within a Feasibility Study ("FS") standard and sufficient for the economic analysis supporting the Mineral Reserve estimate.

1.19 Qualified Person's Conclusions and Recommendations

The CSA mine is well established and has a long operating history with well understood and predictable mineralized lodes leading to reliable Mineral Resource and Mineral Reserve estimation. Production reconciliation continues to support these estimates. Similarly, operating costs have been consistent over recent years providing confidence in the forecast operating costs.

MAC is forecasting a modest increase in annual ore mined to better utilise the capacity of the process plant; while this may lead to some reduction in unit costs, forecast operating costs have taken account of universal increases in input costs experienced across the entire mining industry.

BDA notes that a large proportion of the Mineral Resource lies in the deeper portions of the CSA mine. However, the Mineral Reserve is largely accessible from the existing mine development, and as such, should experience mining conditions no worse than experienced today. The mine life of approximately 6.5 years based on the currently estimated Mineral Reserve is therefore considered relatively low risk.

Glencore (the current owner until the MAC acquisition transaction completes) is coming to the end of an extensive capital investment programme at CSA to prepare the mine for coming years, including a major mine ventilation and refrigeration system upgrade, new ventilation shafts and raises servicing the lower levels of the mine, mobile equipment upgrades and replacement of two of the three ball mills in the process plant. At the completion of this investment programme this year, capital costs are expected to be of a sustainable nature only.

Overall, BDA considers that the current Mineral Resource estimate prepared by Cube Consulting and the Mineral Reserve estimate prepared by Mr Jan Coetzee provide a reasonable, but probably conservative, guide to the in situ and recoverable mineralisation respectively. Significant exploration potential remains within the mine area, most notably the down dip extensions of lodes which remain open at depth. Drilling at depth is relatively sparse, such that these projections cannot be incorporated into current Mineral Reserves. Nevertheless, there is reasonable expectation that the mine life will extend well beyond the current Mineral Reserve limits, and the mine has a long history of ongoing reserve replacement.

2 INTRODUCTION

2.1 Registrant

Behre Dolbear Australia Pty Limited (“BDA”) was engaged by Metals Acquisition Corp. (“MAC” or the “Registrant” or the “Company”) to prepare an independent Technical Report Summary (“Technical Report” or the “Report”) on the CSA Copper Mine (CSA or the Project), located in western New South Wales, 11 kilometres (“km”) northwest of the town of Cobar, Australia.

2.2 Lead Author – Behre Dolbear Australia (“BDA”)

BDA is a mineral industry consulting group, specialising in Independent Technical Expert due diligence reviews, valuations and technical audits of Mineral Resources and Mineral Reserves, mining and processing operations, project feasibility studies, and Independent Engineer work on project development, construction, and certification. BDA specialises in review and due diligence work for companies and financial institutions. BDA is typically engaged to undertake independent expert reviews, to provide advisory services and to monitor a company’s or financial institution’s interests through the design, construction, commissioning, and ramp-up phases of a project.

The parent company, Behre Dolbear and Company Inc. has operated continuously as a mineral industry consultancy since 1911, and has offices or agencies in Denver, New York, Toronto, Vancouver, London, Hong Kong and Beijing, as well as Sydney. Behre Dolbear has over 60 Associates and Consultants covering a wide range of technical expertise and with experience in most parts of the world. BDA is the Australian affiliate and was founded in 1994. BDA operates independently, using primarily Australian-based consultants, but using overseas specialists where appropriate. BDA has acted on behalf of numerous international banks, financial institutions and mining clients and is well regarded as an independent expert engineering consultant in the minerals industry.

BDA is independent of MAC, CMPL and Glencore and has no interests in the companies or assets described in this report. BDA will receive its normal consulting fees and expenses for undertaking this review.

2.3 Terms of Reference

2.3.1 Report Purpose

The purpose of this report is to support the Mineral Resource Estimate and Mineral Reserve Estimate for the CSA mine, both of which have an effective date of December 31st, 2022.

This report has an effective date of February 21st, 2023.

2.3.2 Terms of Reference

This Technical Report Summary conforms to United States Securities and Exchange Commission’s (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary.

Unless otherwise indicated, all financial values are reported in United States (US) currency (US\$) including all operating costs, capital costs, cash flows, taxes, revenues, expenses, and overhead distributions.

Unless otherwise indicated, the metric system is used in this Technical Report.

2.4 Qualified Persons

2.4.1 Qualified Persons of Behre Dolbear Australia

The qualifications and relevant experience for each Behre Dolbear Australia, Qualified Persons are shown below.

Mr Malcolm Hancock (BA, MA, FGS, FAusIMM, MIMM, MMICA, CP (Geol), MAIMVA) is a Principal and Executive Director of BDA. He is a geologist with more than 45 years of experience in the areas of resource/reserve estimation, reconciliation, exploration, project feasibility and development, mine geology and mining operations. Before joining BDA, he held executive positions responsible for geological and mining aspects of project acquisitions, feasibility studies, mine development and operations. He has been involved in the feasibility, construction, and commissioning of several mining operations. He has worked on both open pit and underground operations, on gold, copper, base metal, uranium, light metal and industrial mineral projects, and has undertaken the management and direction of many of BDA’s independent engineer operations in recent years. Mr Hancock has provided project direction, report management and editing.

Mr John McIntyre (BE (Min) Hon., FAusIMM, MMICA, CP (Min), MAIMVA) is a Principal and Managing Director of BDA. He is a mining engineer who has been involved in the Australian and international mining industry for more than 45 years, with operational and management experience in copper, lead, zinc, nickel, gold, uranium and coal in open pit and underground operations, including 5 years as a junior mining engineer in the CSA mine. He has been involved in numerous mining projects and operations, feasibility studies and technical and operational reviews in Australia, West Africa, New Zealand, North and South America, PNG and Southeast Asia. He has been a consultant for more than 30 years and has been Managing Director of BDA since 1994, involved in the development of the independent engineering and technical audit role. Mr McIntyre has provided project direction and was involved in the underground mining, geotechnical, hydrological and cost review.

Mr Mark Faul (BE. Min (Hons), MBA, MAppFin, FAusIMM, GAICD, MAIMVA) is General Manager of BDA is a mining engineer with extensive mining finance and investment experience with more than 35 years in the mining, resources investment banking and private equity investing in Australia, SE Asia, PNG, Africa, Europe and the Americas. His experience includes operations management, project feasibility and development, strategic planning, due diligence, cost assessment, financial modelling, project and corporate finance. He is experienced in a range of commodities, including gold, copper, nickel, base metals, platinum group metals, minor metals, diamonds and gemstones, rare earths, uranium, in both surface and underground mining, as well as coal seam gas and conventional oil & gas. He has extensive experience in mine management, economic analysis, project evaluation, valuation, risk management, project finance from a financier and investor perspective, and as a company director. Mr Faul was the Project Manager for this assignment, reviewing mining aspects, mine production plans, operating costs and compiling the report, and managing the review.

Mr George Brech (BSc. Geology, M.Sc. Engineering Geology, FAusIMM) is a Senior Associate of BDA with more than 45 years of experience in exploration and mining as an exploration and mine geologist. He is experienced in management, exploration, project evaluation, mine development, Mineral Reserve estimation, feasibility studies, open pit mine production, exploration and mine data evaluation, and open pit slope engineering. He has worked in various capacities on a large number of projects providing geological expertise in Australia (14 years), in southern Africa (7 years) and Southeast Asia (20 years). He is familiar with a wide range of commodities including gold, nickel, copper, wolfram, magnesite, iron ore and coal. He has extensive experience in the areas of resource/reserve estimation, reconciliation, independent expert and due diligence reports. Mr Brech has reviewed the geological data and drilling, sampling and assaying review, earlier resource/reserve assessment and grade control practices.

Mr Roland Nice (BSc, MAusIMM, LMCIM, MAIME, MIEAust, Chartered Engineer) is a Senior Associate of BDA with more than 40 years of experience as a professional metallurgical engineer. He has extensive experience in process engineering and operations, project evaluation, technical design and analysis. He has held senior management positions, including General Manager, Metallurgy and Concentrator Manager. Mr Nice has been closely involved with the process plant design, development and construction of gold, copper, uranium and base metal mines as well as numerous other metallurgical projects. He has worked principally in Australia, South America, Canada and Africa. Mr Nice has reviewed the metallurgical testwork, process plant design, plant performance and availability, plant capital and operating cost aspects.

Mr Richard Frew (BE Civil, MIE Aust) is a Senior Associate of BDA with more than 40 years' experience as a planning, estimation and contracts engineer. He is experienced in contract management, feasibility study review, financial modelling, capital cost estimation, infrastructure, project controls, critical path analysis, project implementation and contract assessment. He has worked on a large number of projects providing management and project services to the owners or financiers, including major projects in Australia, the Philippines, Argentina, Mauritania, New Zealand and Romania. Mr Frew has reviewed the infrastructure, capital cost and project management aspects.

Mr Adrian Brett (BSc (Hon) Geol., MSc, MEnvir. Law, FAusIMM) is a Senior Associate of BDA with more than 40 years' experience in environmental and geo-science, including the fields of environmental planning and impact assessment, site contamination assessments, environmental audit, environmental law and policy analysis and the development of environmental guidelines and training manuals. He has worked in an advisory capacity with several United Nations, Australian and overseas government agencies. He has completed assignments in Australia, Indonesia, PNG, Thailand, Laos, the Philippines, the Middle East, Africa and South America. Mr Brett is widely experienced in environmental and social/community audits, reviews of environmental and social management plans and policies, closure plans and gap analysis. Mr Brett has reviewed all relevant environmental aspects and social considerations, consistent with environmental standards and compliance, as well as closure plans.

Company Address:

Behre Dolbear Australia Pty Limited
Level 9, 80 Mount Street
North Sydney, New South Wales, Australia

2.4.2 Qualified Persons of Cube Consulting

Mike Job of Cube Consulting Pty Limited, West Perth, acted as Qualified Person (“QP”) for the Mineral Resource estimate.

The qualifications and relevant experience for this Qualified Person is shown below.

Mr Mike Job (BSc Geol., MSc Geostatistics, FAusIMM) is a Principal Geologist and Director of Cube Consulting and has over 35 years mining industry experience in roles that have varied from mine operations to regional exploration and mineral resource estimation. He has worked on projects throughout Australia, Africa and North America and has experience with many commodities across varied geological environments. He has worked on projects for nickel (sulphide and laterite), many types of gold systems, copper, iron ore (hematite and magnetite), uranium, tin, polymetallic VMS deposits, and numerous specialty metals. His specialties include geological data gathering and interpretation, and Mineral Resource estimates that are practical, robust and auditable. He has sound technical expertise in resource estimation and grade control systems for both open cut and underground mines and has significant management experience at operating mines. He is an expert user of Datamine and Isatis software and has a solid base of geostatistical knowledge gained via his MSc in Geostatistics from the Centre for Computational Geostatistics at the University of Alberta in Canada.

Company Address:

Cube Consulting Pty Limited
4/1111 Hay Street
West Perth, Western Australia

2.4.3 Qualified Persons of Metals Acquisition Corp.

Mr Jan Coetzee of Metals Acquisition Corp. acted as QP for the Mineral Reserve estimate.

The qualifications and relevant experience for this Qualified Person are shown below.

Mr Jan Coetzee (GDMin, MAusIMM, CP (Min), RPEQ, QP) is an Officer of Metals Acquisition Corp Australia Pty Ltd. and has over 30 years of experience as a mining engineer. Mr Coetzee has worked primarily across Africa and Australia in various roles covering mine design and engineering, technical services, projects, studies and management. He is experienced in multiple minerals including platinum group elements, gold, copper, lead, zinc, silver and coal and has direct engineering experience across various mining methods, including open-cut, underground hard-rock and long-wall coal. Mr Coetzee has significant experience in senior management, operations, business improvement, strategic project studies and mine planning in long term design and planning of mining operations and, as a result, has acted previously as both Qualified Person under United States Securities and Exchange Commission regulation and Competent Person under Australia’s Joint Ore Reserves Committee (JORC) and the South African Code for the Reporting of Mineral Resources and Mineral Reserves (SAMREC). In addition to his diverse mining experience, Mr Coetzee has particular expertise in the CSA mine, having worked there as Senior Long Term Planning Engineer for over two years.

Company Address:

Century House, Ground Floor Cricket Square,
P.O. Box 2238
Grand Cayman KY1-1107, Cayman Islands

2.5 Site Visits and Scope of Personal Inspection

Mr Mark Faul, General Manager of BDA (a Qualified Person) visited the CSA site in March 2022, held meetings with key mine operating management and received presentations on the mine's recent performance and forecast production plans. A surface tour of the mine facilities and tailings storage facility and an underground tour of the mine infrastructure and lower mining levels was also undertaken.

Mr Jan Coetzee, officer of Metals Acquisition Corp Pty Ltd. and QP for the Mineral Reserve estimate, was employed at CSA mine for approximately two years (in 2020 and 2022) and has a thorough understanding of the mine and surrounding region.

2.6 Information Sources

In addition to the site visit, BDA has reviewed technical data, management presentations and reports made available by the CSA mine in its virtual dataroom ("VDR") and provided by MAC, Mr Mike Job of Cube Consulting (QP for the Mineral Resource) and Mr Jan Coetzee of MAC (QP for the Mineral Reserve).

The reports and documents listed in Section 24 of this Report were used to support the Report preparation.

All plans for mining operations, future plans, potential, forecasts, projections, and estimates of Mineral Resources, Mineral Reserves and LOM Mine Plans and Production Schedules are forward looking statements. BDA considers this report and its conclusions provide a fair and reasonable assessment of the CSA mine operations, future plans, and potential. BDA has used appropriately experienced consultants in the due diligence review. MAC has confirmed that the information supplied is complete and not misleading. However, any forecasts and projections cannot be assured and factors both within and beyond the control of MAC could cause the actual results to be materially different from BDA's assessments and the projections contained in this report.

2.7 Previous Reports on Project

This report with respect to the Project updates and supersedes the prior reports file by the Registrant (or its affiliates) with the United States Securities Exchange Commission on June 1, 2022 and December 23, 2022.

Additional previous Mineral Resource and Mineral Reserve estimates are known to have been reported to other Non-US regulatory bodies by Glencore Plc. (LON: GLEN) under JORC Code 2012, however such works should not be considered in conformance with United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary.

All CSA Mineral Resource or Mineral Reserve statements developed or referred to in this report which are dated prior to the 31 December 2022 Mineral Resource Estimate or the Mineral Reserve Estimate presented in this Report, should not be considered as compliant with Subpart 229.1300 of Regulation S-K. For clarity, the 31 December 2022 Mineral Resource Estimate provided by Mr Mike Job (QP) and 31 December 2022 Mineral Reserve Estimate provided by Mr Jan Coetzee (QP) presented in this Report by BDA, are compliant with Subpart 229.1300 of Regulation S-K.

BEHRE DOLBEAR

3 PROPERTY DESCRIPTION

3.1 Property Location

The CSA Copper Mine (latitude 31° 24' 32.42°S, longitude 145° 48' 0.20°E) is located 11km northwest of the town of Cobar, in western New South Wales, Australia (Figure 1), approximately 600km west-northwest of Sydney.

Cobar Management Pty Ltd (CMPL) is the Australian legal entity and operator of CSA mine. CMPL is the registered owner of all key assets of the mine including property, mineral, fixed and mobile assets used in the operation. CMPL is ultimately owned by Glencore International AG who, on 17 March 2022, entered into a binding sale and purchase agreement to sell CMPL to MAC.

3.2 Property and Title in Australia

The forms of Australian land title relevant to the CSA mine are listed below.

Crown Lands

Crown land is land that is owned and managed by the NSW Government. It accounts for approximately 42% of all land in New South Wales and carries special provisions. Crown land includes a range of land types, such as:

- Crown lands held under lease, licence or permit
- Community managed reserves
- Lands retained in public ownership for environmental purposes
- Lands within the Crown public roads network
- Other unallocated lands.

Many non-tidal waterways across the state also comprise Crown land as do most tidal waterway land.

Western Lands Lease

Nearly all the land in the Western Division of NSW is held under Western Lands Leases granted under the Western Lands Act 1901. From 1 July 2018, this legislation was replaced by the Crown Land Management Act 2016 ("CLM Act"). The 6,600 Western Lands Leases include: 4,300 for grazing; 573 for agriculture; 1,593 for residence; 134 for mining and other specific purposes. Most leases are perpetual (ongoing) and can only be used for a designated purpose. The State charges an annual rent for leases in accordance with the CLM Act, grazing and agriculture lease rents are based on the total area of the property and on the environmental impact of the land use, including a credit for managed conservation. Rents for residential and business leases are 3% and 6% of the unimproved land value, respectively.

3.3 Mineral Title in New South Wales

The types of NSW mineral titles relevant to the CSA mine are listed below.

Exploration in NSW is regulated under the *Mining Act 1992*. The aim is to encourage and help in the discovery and development of NSW's mineral and coal resources and encourage ecologically sustainable development. Before exploring for minerals in NSW, an explorer must obtain an exploration licence.

Exploration Licence ("EL")

This licence grants the title holder the exclusive rights to explore for a specific mineral or mineral group(s) within a designated area. ELs are typically granted and renewed for periods of 2–6 years. An EL does not permit mining, nor does it guarantee that a mining lease will be granted.

Exploration (Prospecting) Licence ("EPL")

These licences were granted under the *Mining Act 1973* to allow a title holder to explore for minerals (excluding coal) within a designated area. While EPLs are no longer granted, some remain active. Under the *Mining Act 1992*, EPLs are deemed to be exploration licences, however they do not permit mining, nor guarantee that a mining lease will be granted.

A mining (minerals) lease application is made when mining or production is economically, technically and environmentally feasible. At this stage companies must specify exactly what mineral(s) they intend to extract. Mining leases give the title holder the exclusive right to extract a specific resource over a selected area.

To be granted a mining lease a development consent must be granted by the relevant consent authority, and an Environmental Protection Licence (EPL) must have been issued by the NSW Environmental Protection Agency under the *Protection of the Environment Operations Act 1997*.

Title holders must comply with all conditions of title and all relevant requirements of the *Mining Act 1992* and associated regulations for the life of the lease.

Mining Lease (“ML”)

An ML gives the title holder the exclusive right to mine for a particular viable mineral resource within a selected area. To be granted a mining lease companies must prove that there is an economically mineable mineral resource within the area of the proposed mining lease, and that they have the financial and technical resources to carry out any mining in a responsible way.

Mining Purposes Lease (“MPL”)

These are leases granted for areas in mineral mining operations for purposes such as infrastructure where resource extraction does not take place. Hence, they will appear as ‘nil minerals’. MPLs were granted under the 1906 and 1973 Mining Acts. MPLs are no longer granted and leases for mining purposes are now categorised as MLs under the *Mining Act 1992*.

Consolidated Mining Lease (“CML”)

This is a mining lease which covers adjoining titles held by one title holder. On a CML, there is often a common border between where mining takes place or additional areas shown as ‘nil mineral’ areas, which is where production facilities and other infrastructure may be located.

3.4 Mineral Titles, Claims, Rights, Leases and Options

3.4.1 Mineral Titles

CMPL has an extensive mineral tenement holding located in the prospective Cobar Basin comprising one Mining Lease (CML5), two Mining Purposes Leases (MPL1093/1094), two wholly owned Exploration Licences (EL5693/5983), one Exploration Licence Application (ELA6565), two joint venture (“JV”) Exploration Licences (EL6223/6907) and three ELs in which CMPL’s interest has recently been converted to a royalty interest (EL6140/6501/6739) (Figures 2 and 4).

CML5 covers an area of approximately 24.7km² (2,474 hectares (“ha”)), the MPLs total approximately 30ha, while the surrounding exploration tenements (EL5693 and 5983) cover approximately 366km² and ELA6565 covers approximately 138km². EL5693 and EL5983 are held by CMPL (through subsidiary Isokind Pty Ltd) and surround the CSA mine. In addition, CMPL has a joint venture with AuriCula Mines Pty Limited (“AuriCula”) covering the Shuttleton and Mt Hope Exploration Licence tenements south of Cobar (CMPL 90% interest). CMPL previously held joint venture interests with Oxley Exploration Pty Limited (“Oxley”) in the Restdown, Restdown South, and Horseshoe tenements southeast of Cobar, but these interests have recently been reduced to a royalty-only interest, being a 1% net smelter return interest on any mineral or metallic product.

Table 3.1
CMPL Tenement Holding (February 2023)

Tenement	Area	Granted	Expiry	Status	Details	Holder
CML5	2,474ha	01/12/1993	24/06/2028	Current	CSA Mine	Isokind Pty Ltd (CMPL)
MPL1093	16ha	05/02/1947	05/02/2029	Current	MPL for water harvesting	Isokind Pty Ltd (CMPL)
MPL1094	14ha	05/02/1947	05/02/2029	Current	MPL for water harvesting	Isokind Pty Ltd (CMPL)
EL5693	111 units	08/02/2000	07/02/2027	Current	EL (CSA Regional)	Isokind Pty Limited (CMPL)
EL5983	11 units	30/08/2002	30/06/2027	Current	EL wholly within EL5693	Isokind Pty Limited (CMPL)
EL6223	13 units	05/04/2004	05/04/2023	Current	EL (Shuttleton), JV with AuriCula	AuriCula Mines Pty Limited
EL6907	11 units	11/10/2007	11/10/2027	Current	EL (Mt Hope), JV with AuriCula	Actway Pty Limited (CMPL)
EL6140	24 units	22/10/2003	22/10/2023	Current	EL (Restdown) - royalty interest	Oxley Exploration Pty Ltd
EL6501	15 units	05/01/2006	01/01/2024	Current	EL (Restdown South) - royalty interest	Oxley Exploration Pty Ltd
EL6739	15 units	27/03/2007	27/03/2024	Current	EL (Horseshoe 2) - royalty interest	Oxley Exploration Pty Ltd
ELA6565	46 units	Pending	Pending	Pending	EL Application lodged 16/11/2022	CMPL

Notes: CML = Consolidated Mining Lease; MPL = Mining Purpose Lease; EL = Exploration Licence; ELA = Exploration Licence Application; ha = hectare; in NSW one EL map unit is one minute of latitude by one minute of longitude or approximately 3km²; both Isokind and Actway are wholly owned subsidiaries of Glencore and application has been made to transfer the Holder of these leases to CMPL

3.4.2 Land Tenure

CML5 occupies portions of five Western Land Leases (Nos. 9565, 731, 13844, 3667, 13844) and Crown Land including parts of the Cobar Regeneration Belt. MPL1093 and MPL1094 occupy Crown Land.

3.4.3 Native Title

The CSA mine lies within the traditional lands of the Ngemba/Ngiyampaa People. A Native Title claim by Ngemba, Ngiyampaa, Wangaaypuwan, and Wayilwan claimants was accepted for registration by the National Native Title Tribunal in April 2012 (*NSD38/2019 and NC2012/001*). This claim is relevant to the CSA mine operation in that it intersects exploration and mining tenements held by CMPL or its subsidiaries.

The claim has not yet been fully determined, but as of September 2021, it has been agreed by parties to the Federal Court proceedings that Native Title has been extinguished over some 89% of land parcels within the Native Title claim area, which includes Western Lands Lease areas. Native Title has been definitively extinguished over all land allotments lying within the boundary of CML5, but not the other EL’s, and once the Native Title claim has been determined, it is likely that the several parties holding interests in the land (including the State of New South Wales and CMPL or its subsidiaries will enter into an Indigenous Land Use Agreement to guide the future use and management of land and water within the Native Title claim area that covers the EL’s.

3.4.4 Joint Venture Interests

Joint Venture interests held by CSA are outlined for completeness, however, are not considered material for the purposes of this Report.

The ground within the Cobar Basin is tightly held with a number of active explorers. Operating and previously operating mines in the vicinity of CSA’s copper mine include the Endeavor lead-zinc mine (CBH Resources), Peak and Hera gold-copper mines (Aurelia Metals), and the Tritton copper mine (Aeris Resources) (Figure 2).

As well as the tenements held directly by CSA (EL5693 and EL5983) which surround the CSA mine, CMPL has interests in tenements held in joint venture with AuriCula Mines Pty Limited (AuriCula). Until recently CMPL also had a joint venture interest in tenements held by Oxley Exploration Pty Limited (Oxley) (Figure 2), but these interests have now been converted to a royalty-only interest.

3.4.4.1 AuriCula Joint Venture

3.4.4.2 Shuttleton Joint Venture (EL6223)

The Shuttleton Joint Venture between CSA (90%) and AuriCula (10%), a wholly-owned subsidiary of International Base Metals Limited, covers EL6223 which is located approximately 75km south of Cobar and 30km west of Aurelia's Hera Mine (Figure 2). The EL includes the historic workings of Crawl Creek and South Shuttleton which produced around 3,000t of copper in the 1900s at average grades of around 5% Cu. Recent exploration has included acquisition of airborne magnetic and radiometric data and completion of soil and auger geochemical sampling and reverse circulation ("RC") and diamond drilling. Structural interpretations have identified NW trending structures intersecting N-S structures beneath shallow residual cover, with the intersections considered favourable for mineralisation. The geochemical surveys have also identified two anomalous zones coincident with favourable NW trending structures.

The Wirlong copper deposit lies just east of the Shuttleton tenement and is associated with the northwest oriented John Owen fault which also crosses the Shuttleton ground. The Mallee Bull copper-gold prospect lies 30km to the south. A systematic exploration programme to test the potential for base metal mineralisation is proposed for 2022.

Mt Hope Joint Venture (EL6907)

The Mt Hope JV tenements (Mt Hope North and Mt Hope South) lie approximately 130km south of Cobar (Figure 2) and include the historic Mt Hope and Great Central-Comet mines which produced around 10,600t of copper. Gold and silver mineralisation has been identified at Anomaly 3 south of the Great Central prospect. Limited drilling (4 RC holes and 9 diamond holes) has been undertaken. Electromagnetic and magnetic surveys and soil sampling have defined several anomalies warranting further follow up and an auger drilling campaign and further geochemical and geophysical surveys are proposed for 2022.

3.4.4.3 Oxley Tenements (Former Joint Venture)

Restdown, Restdown South and Horseshoe Joint Venture (EL6140, EL6739 and EL6501)

The Restdown, Restdown South, and Horseshoe Oxley tenements comprise EL6140, EL6739 and EL6501 (Figure 2). Exploration activities are managed by Oxley, a wholly owned subsidiary of Helix Resources Limited ("Helix") and Glencore has not been contributing to the exploration expenditure apart from annual rents and levies. The tenements contain a number of prospects with potential for low grade gold associated with the Restdown Anticline. Recent drill results indicate limited potential for economically mineable resources. CMPL has recently converted its former joint venture interest into a 1% NSR royalty-only interest.

3.4.5 Water Rights

At present, CMPL holds an entitlement of 1,356 megalitres per annum ("MLpa") of high security water under the Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source. These water licences are issued under the NSW *Water Management Act 2000*. However, during periods of serious drought, CMPL may not be able to access its full share of water under the water-sharing plan.

CMPL also holds groundwater entitlements. However, river water is preferred due to the levels of sulphates and the hardness of the ground water, which renders it unsuitable for use unless treated via reverse osmosis.

Two water storages that receive surface runoff from the catchments are located to the northwest of the mine; Old Mine Dam North and South under Mining Purpose Lease (MPL) MPL1093 and MPL1094 respectively.

A summary of CSA's mine water licences is provided in Table 3.2

Table 3.2
CSA Mine Water Licences

Licence Number	Source	Category	Allocation
WAL36335	Macquarie and Cudgegong Regulated Rivers Water Source	Regulated River – High Security	42.4 units
WAL36336	Macquarie and Cudgegong Regulated Rivers Water Source	Regulated River – High Security	813.6 units
WAL28539	Lachlan Fold Belt Groundwater Source	Aquifer	300 units
WAL28887	Lachlan Fold Belt Groundwater Source	Aquifer	210 units

3.4.6 Royalties

3.4.6.1 State Royalty

In NSW, most minerals are owned by the state. Under the Mining Act 1992, royalties are payable on extracted minerals and royalty payments jointly managed by Mining, Exploration and Geoscience within the Department of Regional NSW, and Revenue NSW. For copper and silver mined at the CSA mine, an ad valorem royalty is calculated as 4 per cent of the value of production less allowable deductions.

3.4.6.2 Glencore 1.5% Cu NSR

As part of the sale consideration, MAC will enter into a copper Net Smelter Royalty (“NSR”) in favour of Glencore. This will be at rate of 1.5% for copper only based on the NSR received by CMPL for the life of the mine.

3.4.6.3 Oxley Tenements (Former Joint Venture)

CMPL has recently converted its former *Restdown, Restdown South and Horseshoe Joint Venture (EL6140, EL6739 and EL6501)* interest into a 1% NSR royalty-only interest.

Please refer to 3.4.4.3 for further information.

3.4.7 Encumbrances

The QPs are not aware of any material encumbrances that would impact the current resource or reserve disclosures as presented herein.

3.4.8 Permitting and Development Consents

CSA operates under several authorisations including:

- Development Consents authorised by the Cobar Shire Council (CSC), under referral from other government departments.
- Landowner’s Consent authorised by NSW Department of Planning Infrastructure and Environment (“DPIE”)
- Mine Tenements authorised by the NSW DPIE
- Mine Operations Plan (“MOP”) authorised by the NSW Resources Regulator
- Rehabilitation Management Plan (“RMP”) authorised by the NSW Resources Regulator
- Environmental Protection Licence (*EPL1864*) authorised by the NSW Environmental Protection Agency (“EPA”)
- Water Licences issued under the NSW Water Management Act 2000; responsibilities for authorising and managing water licences are shared between the Natural Resources Access Regulator (“NRAR”) and Water NSW; NRAR is responsible for compliance and enforcement of NSW Water Law including water access licence requirements.
- NSW Western Lands Lease and Property Vegetation Plans authorised by the Western Catchment Authority under the NSW *Crown Land Management Act 2016*.

Mining projects in NSW (including expansions or modifications of existing projects) require development consent under the NSW *Environmental Planning and Assessment Act 1979* (“EP&A Act”).

The earliest statutory development consent held by CMPL for the CSA mine is Local Development Consent No. 31/95 and Amendment 97/98:33 approved by CSC in 1995 and 1998 which permits use of the CSA mine site by CMPL. Subsequent expansions and amendments of mining development at CSA mine have all been assessed and administered by the CSC.

3.4.8.1 Mine Operations Plan (MOP)

Environmental aspects of mineral exploration and mining (including mine rehabilitation and closure) in New South Wales are administered under the NSW *Mining Act 1992*. A mine is required to prepare and implement a Mine Operations Plan (including a Mine Rehabilitation Plan) approved by the NSW Resources regulator. The most recent Mine Operations Plan for the CSA mine was submitted to the NSW government on 31 March 2021 and approved on 5 May 2021 and was valid to 31 December 2022.

Following the recent introduction of the *Mining Amendment (Standard Conditions of Mining Leases – Rehabilitation) Regulation 2021*, the MOP for large mines has been replaced by a targeted Rehabilitation Management Plan (“RMP”). The lease holder will provide annual reporting and scheduling of rehabilitation via an Annual Rehabilitation Report and forward programme. This will replace the current requirement for an Annual Environmental Management Report (“AEMR”).

The RMP has been submitted to the regulator and the mine continues to operate under the MOP while the regulator reviews the RMP application. The RMP is considered an improved process from the previous MOP though not expected to have any material change on CSA’s operations.

3.4.8.2 Environmental Protection Licence

The *Protection of the Environment Operations Act* (“POEO Act”) is the statutory instrument through which certain specified activities are regulated by the NSW Environment Protection Authority (EPA). Activities are administered by means of Environment Protection Licences (“EPLs”) issued to operators of the premises on which the activities occur. CSA currently holds EPL1864 authorising mining of minerals to a maximum annual production capacity of 2Mtpa.

The most recent EPL was approved in 2017, with a new application lodged in August 2022. The Act requires licences to be reviewed at least every five years; accordingly, EPL1864 was due to be reviewed by the EPA by 30 June 2022, however this has not yet occurred and the onus is on the regulator to undertake the review. There are no required activities by CSA and given the historical operations of the mine and long-standing, regular interactions with the regulator, no material changes are expected to occur as a result of the review.

3.4.9 Violations and Fines

The QP’s are not aware of any current material violations or fines imposed under the Regulations of the Mining Act 1992 that apply to the CSA mine.

3.5 Significant Factors and Risks That May Affect Access, Title or Right to Perform Work

With relation to mining titles, the QP’s are not aware of any significant risks that may affect access, title, or the right or ability to perform work in relation to the CSA mine.

4 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY

4.1 Topography, Elevation and Vegetation

The CSA mine is approximately 260m above sea level and is located in an area of low undulating north-northwest (“NNW”) trending rises and is associated with a broad, prominent hill, Elouera Hill, which rises approximately 30m above the surrounding landscape. The mine lies close to the local drainage divide between the catchments of Sandy Creek in the southwest and Yanda Creek to the northeast.

The Cobar area has been impacted by mining and agricultural activities since the 1880s. The existing landscape surrounding the CSA mine is characterised by mining infrastructure, tailings storage facilities, shafts, disturbed grasslands and soil and rock stockpiles. The native vegetation of the area has been impacted by these activities with the historic removal of much of the native vegetation by clearing and over-grazing, resulting in erosion and extensive colonisation of the native vegetation. This has created a dense regrowth, referred to as ‘woody weeds’ or Invasive Native Species. The landscape has become highly modified and vulnerable to wind and water erosion, particularly those areas devoid of vegetation ground cover protection. The region surrounding the CSA mine is dominated by rangeland agriculture.

4.2 Accessibility

The CSA mine is located 11km northwest of the town of Cobar, in western NSW, Australia (Figure 1), approximately 600km west-northwest of Sydney. The mine is accessed via sealed highways from Sydney to Cobar and sealed urban roads from Cobar to the mine site.

4.2.1 Roads

Road access to the mine site from Sydney is via National Highway No. A32, the Barrier Highway, a high-quality rural highway to Cobar and from there to the mine site on sealed urban roads.

4.2.2 Airstrip

Cobar is serviced by a sealed airstrip with commercial flights three times per week to and from Sydney.

4.2.3 Rail

The site is serviced by a rail line (Figure 1) which allows transport of concentrate product to the Port of Newcastle for export. Concentrate is loaded into rail wagons at the site and railed to Newcastle along the NSW rail network. Railing to Port Kembla, south of Wollongong, is also an option.

4.3 Climate

The climate of Cobar is semi-arid with evaporation typically exceeding rainfall by a ratio of 6:1. The mean annual rainfall for Cobar is approximately 400mm. During summer months, maximum temperatures typically range between 28-39°C and during the winter months, maximum temperatures typically range between 13-20°C. Minimum temperatures in the winter months typically range between 5-9°C. Rainfall and temperature records have been recorded from May 1962 and evaporation from November 1967.

4.4 Infrastructure

4.4.1 Power Supply

Power supply to the site is via a 132kV transmission line from Essential Energy’s western NSW network. The Essential Energy network is supplied by a mix of conventional and renewable power generation, including the 102 megawatt (“MW”) and 132MW solar farms in the nearby towns of Nyngan and Nevertire. A 22kV line is also connected to the site from Cobar and is available for limited supply in emergencies. Further backup power is supplied by diesel power generators.

4.4.2 Water Supply and Water Pipelines

The majority of water supply for the operation is provided by the Cobar Water Board from a weir on the Bogan River at Nyngan (Figure 1) through a network of pumps and pipelines. Additional water is available from tailings water recycling, surface water capture and a borefield installed in 2019. Water demand is around 3 megalitres per day (“ML/day”) in summer, with most water supplied by the Cobar Water Board system. The borefield has capacity for up to 1.3ML/day. The Cobar Water Board system is adequate to supply the operation up to around 1.2Mtpa; the borefield is only required during periods of drought or should a plant feed rate in excess of 1.2Mtpa be considered for extended periods.

Additional water can be secured by relacing the pipeline from the Cobar Water Board system to the mine site that currently has approximately 20% line losses.

4.4.3 Workforce Accommodation

The majority of the workforce is accommodated in Cobar with some senior staff employed on a fly in/fly out (“FIFO”) or drive in/drive out (“DIDO”) arrangement. No workforce accommodation is provided at the mine site.

4.4.4 Site Buildings and Services

Site buildings comprise site offices, warehouses, and services buildings. Site services include power and water reticulation facilities, communications systems and fuel storage and dispensing facilities.

4.4.5 Tailings Storage Facility

CSA mine currently operates one tailings storage facility, the South Tailings Storage Facility (“STSF”) (Figure 4), comprising the main STSF (approximately 63ha) and the STSF Extension (19ha). In 2010, the STSF was upgraded to alter the deposition method to a central depositional system. This method provides substantial water savings and will result in a final landform more amenable to rehabilitation. There will also be a reduction in the requirement for suitable material for tailings dam wall lifts and final capping; final topsoil requirements for rehabilitation will be lower than with the old multi-spigot perimeter depositional method and there will be an increase in tailings dam integrity as the resultant solids will contain less moisture.

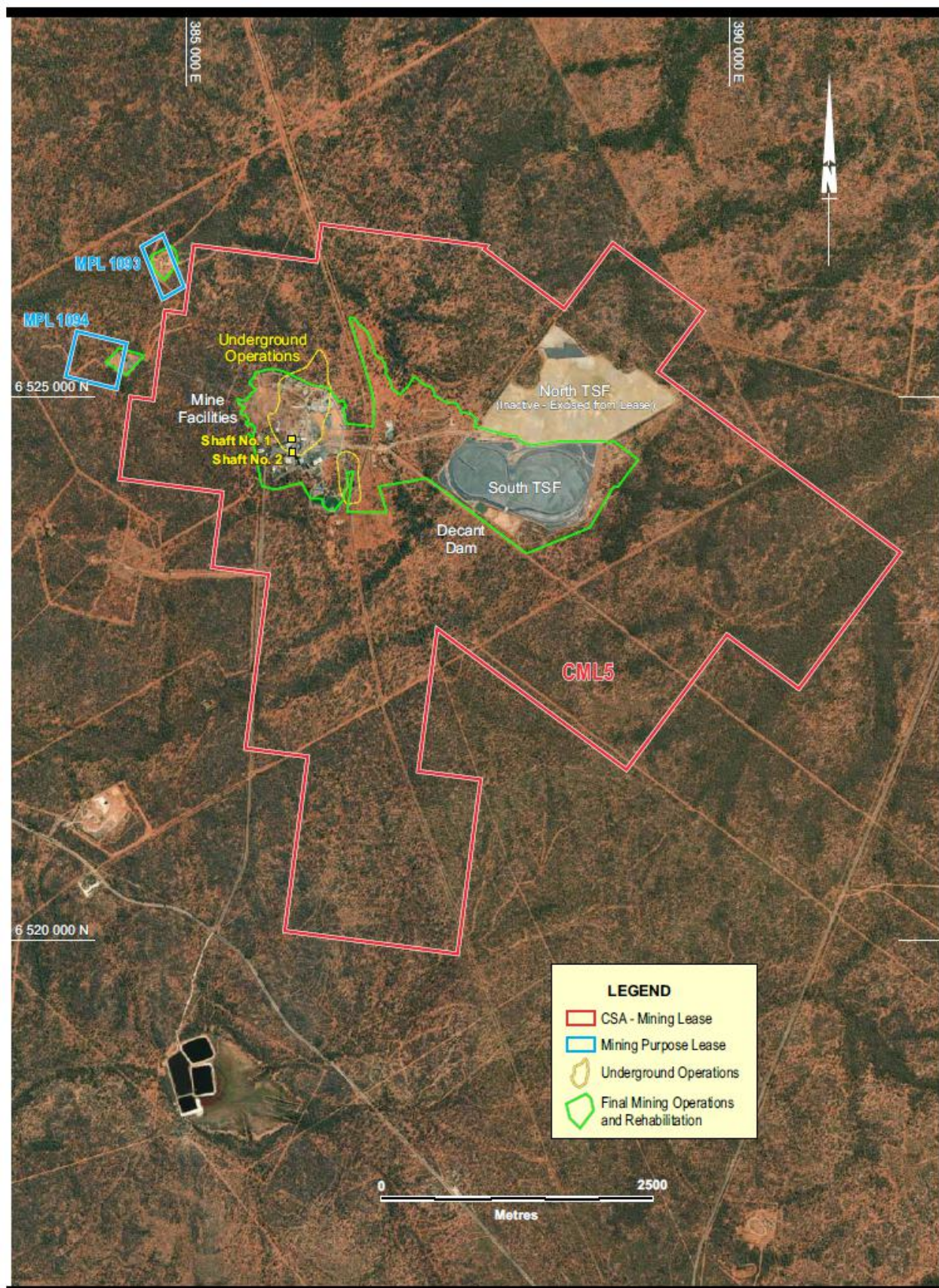
After several lifts of the perimeter embankment, the current wall lift (Lift 9) is expected to have deposition capacity through to December 2024. One further wall lift (Lift 10) is scheduled and is expected to provide enough capacity for the Reserve life of mine.

To support potential mine life extension beyond the current Reserves, the existing STSF can support an additional lift (Lift 11) which would provide storage capacity until approximately 2032 (at a nominal 1.3 Mtpa production rate).

Tailings from the process plant flotation circuit are thickened in a high-rate thickener, and the underflow is sent to the paste fill plant or to the STSF. Supernatant water is collected in a dedicated decant dam for recycling to the process plant circuit.

The STSF appears to be well operated with no significant issues in relation to the facility’s integrity. CSA has commenced a study to install buttressing in specific areas on the STSF wall to improve the Factor of Safety (“FOS”) to the Post Seismic (Liquified Strength). The current early phase estimate to rectify the FOS is approximately A\$5M and is expected to be completed in 2023.

The North Tailings Storage Facility (NTSF) (132.9ha) which lies adjacent to the northern boundary of the STSF, has been decommissioned and has been excised from the CSA Mine Lease (CML5); NTSF is owned by, and is the responsibility of, the New South Wales government.



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CSA Mine

Figure 4
BDA - 0230-02-Feb. 2023

MINE SITE LAYOUT PLAN
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5 HISTORY

5.1 Previous Operations

The CSA deposit was discovered in 1871 and named after the nationalities of its initial owners (a Cornishman, a Scotsman and an Australian). Development began in the early 1900s, but it was not until 1961 that a significant resource was proven up by Broken Hill South Pty Ltd. The site transitioned to an underground operation in 1965 with first underground production in 1967.

The mine was acquired by Conzinc Riotinto Australia Pty Ltd in 1980 and sold to Golden Shamrock Mines Pty Ltd (“GSM”) in 1993. GSM was subsequently acquired by Ashanti Gold Fields in the same year and the mine continued to operate until 1997, when the operation ran into financial difficulties and was placed in receivership.

The CSA mine was acquired by Glencore in 1999. Cobar Management Pty Limited (CMPL), a wholly owned Australian subsidiary of Glencore Operations Australia Pty Ltd, itself a wholly owned subsidiary of Glencore, is the direct owner and operator of the mine (and is the entity to be acquired by MAC). As part of its acquisition in 1999, Glencore received a number of concessions from the NSW government, whereby several components of the previous mining operations were excised from the mining lease such that no liability arising from these components transferred to CMPL. The excised components included the Northern Tailings Storage Facility (NTSF), a mine subsidence area and adjacent waste rock dumps.

Underground operations were resumed, and the mine has now operated under Glencore management for over 20 years.

5.2 Recent Production History

CSA is one of Australia’s deepest underground mines, extending to 1.9km in depth and Australia’s highest grade copper operation. Mine production in 2022 totalled approximately 37kt of copper and 446ktoz of silver (“Ag”) in copper concentrates. Table 5.1 shows the historical production over the last six years.

Table 5.1

CSA Mine – Production History 2017-2022

Description	Unit	2017	2018	2019	2020	2021	2022
Ore Mined	kt	1,142	1,004	1,103	1,224	1,066	1,033
Ore Grade	% Cu	4.98	4.57	4.01	3.78	3.70	3.68
Waste Mined	kt	290	255	346	317	160	235
Total Material Moved	kt	1,432	1,260	1,450	1,541	1,225	1,268
Ore Milled	kt	1,100	1,002	1,105	1,224	1,062	1,033
Milled Grade	% Cu	4.98	4.57	4.01	3.84	3.90	3.68
Contained Copper	kt	54.8	49.5	44.2	46.9	41.4	38.0
Copper Concentrate Tonnes	kt	211.4	171.6	162.9	172.2	157.3	144.4
Copper Concentrate Grade	% Cu	25.3	26.1	26.7	26.8	25.8	25.8
Copper Recovery to Conc.	% Cu	97.5	97.6	98.4	98.2	97.9	97.9
Cu Production	kt	53.4	44.8	43.5	46.2	40.5	37.3
Ag Production	ktoz	564	459	462	516	459	446

5.3 Historical Exploration

After the initial discovery in 1871 a further discovery of copper-rich ore occurred in 1905, however, a slump in metal prices and an underground fire led to the closure of the mine in 1920. Zinc Corp Ltd (through its subsidiary Enterprise Exploration) explored the area from 1947 to 1957 and commenced re-development work in 1952. Cobar Mines Pty Ltd was created in 1956, mining recommenced in 1962 and production commenced in 1965 from the Eastern (Cu-Zn) and Western (Pb-Zn-Ag) System lenses.

The QTS System was discovered in the mid-1970s with the QTS North lenses being main source of the copper ore at the time. Under the various owners of Conzinc Riotinto of Australia (CRA) in 1980, Golden Shamrock Mines (GSM) in 1993 and Glencore in 1999, ongoing periods of exploration occurred including geochemical and geophysical data acquisition, shallow RC drilling and deeper diamond drilling.

Extensive geochemical soil sampling was undertaken across CML5 in the mid-1970s, 1993 to 1995, and from 2006 to 2008. Pulps from these campaigns have been re-assayed for multi-elements with current laboratory methods in 2021.

Geophysical surveys across CML5 include early two-dimensional induced polarisation (“2DIP,”), ground magnetics and gravity, airborne electromagnetics (“EM”), and more recent Induced polarisation (“IP”) and resistivity; magnetotelluric (“MT”) data was acquired by Geophysical Resources and Services Pty Ltd (“GRS”) using the M.I.M Distributed Acquisition System (MIMDAS). Ongoing surveys include downhole electromagnetics (“DHEM”) of diamond drill holes and fixed loop EM (“FLEM”) surveys in 2021 and 2022. Refer to Section 7.3 for additional information on non-drilling related exploration.

The CSA deposit has been drilled using fully cored diamond drill holes drilled either from surface or underground, primarily using NQ size (47.6mm diameter core). The deposits have been defined by over 6,500 holes totalling approximately 900km of core, although data from many of the historical drill holes is not used for current resource estimation, being located in the upper mined out levels of the deposit. Drilling ranges from as far back as 1950 to the present; however, the bulk of the drilling contributing to resource estimation has been completed since 2000. The diamond holes for estimation prior to 2000 are located predominantly in the upper levels, and represent around 51% of drill metreage; diamond drilling post 2000 is focussed principally on the lower levels and represents approximately 49% of drill metres. The average drillhole depth is approximately 160m (surface and underground) with the maximum over 1,100m.

Relatively shallow RC drilling along strike of the mine to the north and south has delineated geochemically anomalous zones from prospects such as Spotted Leopard and Pink Panther south of the mine to prospects GSM and Kendi north of the mine, and Western Gossan and Block 19 immediately west of the mine.

Diamond drilling around the mine (such as at Western Gossan and QTS North), and at prospects such as Tailings Dam and Stoney Tank on the eastern side of CML5, has continued to intersect base metal mineralisation.

Table 5.2 summarizes the various types of surface and underground drilling conducted at CSA over the last ten years.

Table 5.2

Surface and Underground Drilling History

Drilling Type	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Diamond Drilling (Surface Exploration)	1,203	396	-	1,972	9,540	13,158	27,114	15,001	7,285	-	5,268	80,937
RC Drilling (Surface Exploration)	705	-	-	-	-	19,533	13,343	2,188	1,935	-	-	37,704
Infill/Extension/Upgrading (Underground)	13,602	18,439	15,020	9,991	12,864	17,592	23,706	13,023	23,832	22,151	26,645	196,863
Exploration (Pure) (Underground)	896	-	578	-	-	-	692	-	300	-	-	2,466
Geotechnical (UDT) (Underground)	4,944	-	1,654	3,470	617	2,867	625	1,475	1,723	253	-	17,628
Infrastructure (UDS) (Underground)	452	1,085	265	597	-	1,130	-	-	37	889	761	5,217
Total (Surface + Underground)	21,803	19,920	17,517	16,030	23,021	54,280	65,480	31,687	35,111	23,294	32,674	340,816

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6 GEOLOGICAL SETTING, MINERALISATION AND DEPOSIT

6.1 Regional Geology and Mineral Deposits

The CSA mine has a long history of exploration and operations and the geology is well documented and generally well understood. The CSA deposit is located within the Cobar mineral field, in the Cobar Basin (Figure 5). Mineralisation is hosted in the Silurian-age CSA Siltstone, a member of the Amphitheatre Group of the Cobar Supergroup sequence of rocks and is associated with zones of deformation and shearing. The CSA Siltstone consists of a sequence of rhythmic bedded siltstones and sandstones. The rock sequence was structurally deformed during the development of the Cobar Basin in the early Devonian period.

The Cobar mineral field is a mineralised belt 80km north-south and up to 40km wide, containing copper, gold, and lead-zinc mineralisation along the eastern margin of the Cobar Basin, one of many north-south grabens that developed in the Lachlan Fold Belt ("LFB") during the Siluro-Devonian period. The LFB is a complex orogenic belt which developed at the margins of an evolving tectonic plate. Regional crustal extension of the LFB in the late Silurian created a series of north-south trending deep water basins and troughs that, in the Cobar region, included the Cobar Basin and further south the Raast and Mt Hope Troughs. The Cobar Basin is fault bounded on all sides and studies indicate that reactivation of the faults played a significant role in providing fluid pathways for mineralising fluids and dilational zones for the formation of the mineral deposits.

Rocks of volcanic derivation are rare, and igneous intrusions are limited to a few small porphyritic bodies at the southern extremity of the field. Rocks in the Cobar Basin have undergone low grade regional metamorphism to lower greenschist facies.

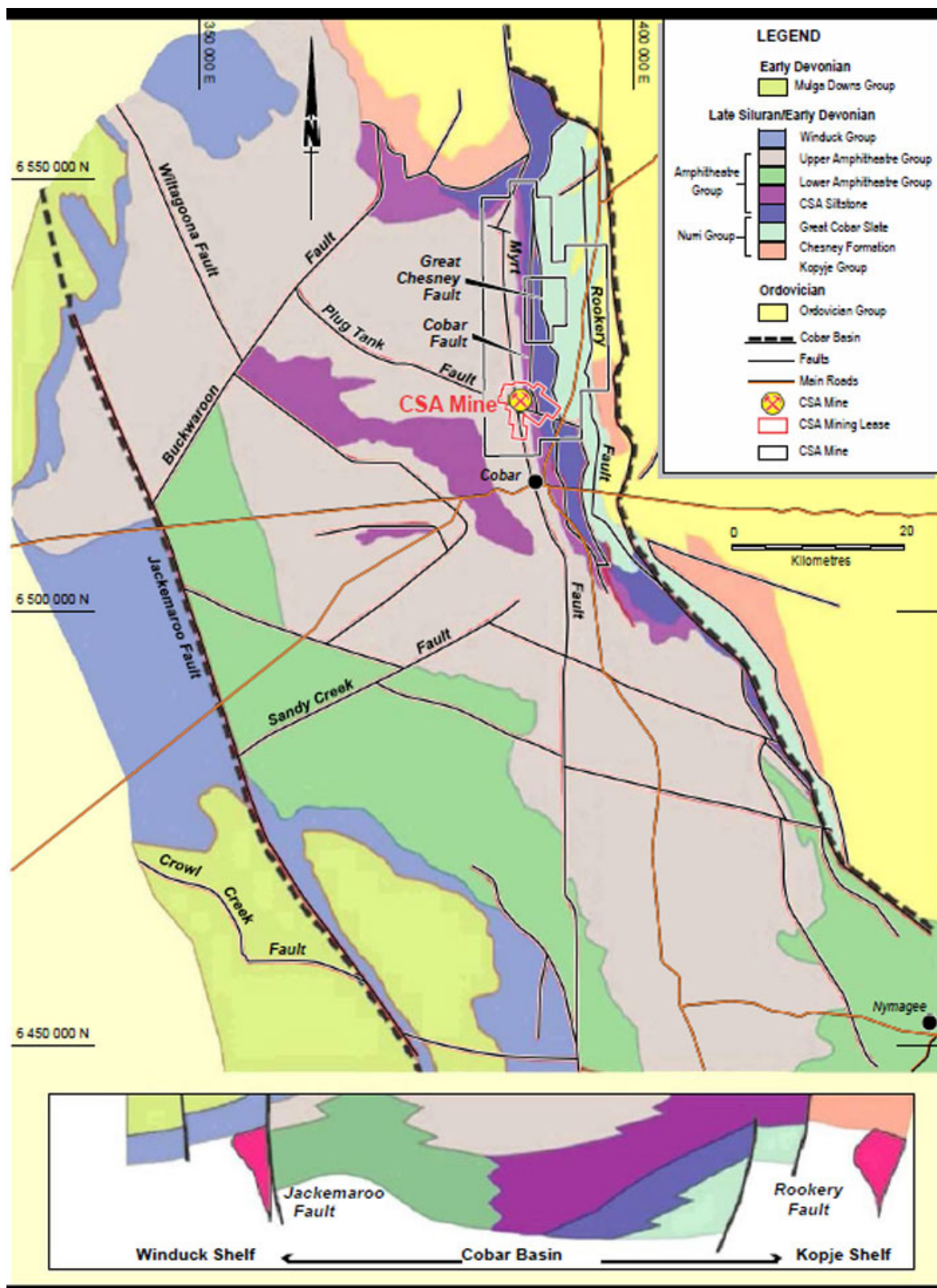
The Cobar Basin is a well-endowed metalliferous province with a diverse range of, predominantly sediment- hosted, mineral deposits. Most of the known deposits are located adjacent to the eastern, fault-controlled, basin margin. Significant deposits from north to south include the Endeavor silver-lead-zinc deposit, the CSA copper deposit, The Peak, Perseverance, New Occidental and New Cobar gold-copper deposits, the Nymagee copper- lead-zinc deposit, the Hera gold-copper-lead-zinc deposit, and the Mineral Hill gold-copper deposit.

The known mineral deposits are all structurally controlled and typically occur as narrow, short strike length pipes, lenses and veins (ie. a small surface area) but are notable for their considerable vertical extent. The location of the deposits along or adjacent to the basin margin Rookery Fault and sub-parallel faults suggests migration of fluids from basement sources up the basin margin fault.

6.1.1 Stratigraphy

The principal operating mines in the area are CSA (Cu with minor Pb/Zn), Endeavor (Pb/Zn/Ag), The Peak (Au/Cu), Hera (Au/Cu), and Tritton (Cu) (Figure 1 and Figure 2). The deposits of the Cobar field occur exclusively within the Nurri and Amphitheatre Groups of the Cobar Supergroup (see Table 6.1). The Nurri Group unconformably overlies, and is in faulted contact with, basement rocks of the Cambro-Ordovician Girilambone Group, along the eastern margin of the Cobar Basin. The Nurri Group comprises the basal Chesney Formation, consisting of a thick turbidite sequence with a coarse basal conglomerate, and the Great Cobar Slate, consisting predominantly of mudstones, siltstones, and fine-grained sandstones. South of Cobar, the contact between the Chesney Formation and the Great Cobar Slate is locally faulted, and this contact hosts a number of gold deposits in a series of en-echelon sub-vertical shears.

The Amphitheatre Group, a deeper water facies to the west, partially interfingers with, and partially overlies, the Nurri Group. At the base of the Amphitheatre Group is the CSA Siltstone, which consists of a thinly bedded turbiditic sequence of carbonaceous siltstones and mudstones with fine-grained sandstones. The CSA Siltstone is the only unit of known economic significance within the Amphitheatre Group and hosts the CSA and Endeavor mineralisation.



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CSA Mine

Figure 5
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COBAR REGIONAL GEOLOGY
Behre Dolbear Australia Pty Ltd

Table 6.1			
Cobar Stratigraphic Column			
Group	Formation	Age	Description
Cobar Supergroup		Siluro-Devonian	
Winduck Group			Shallow marine shelf deposits
Amphitheatre Group	Upper Amphitheatre Group		Turbidites, shales, siltstones, sandstones; CSA Siltstone is host to base metal mineralisation at CSA mine and Endeavour mine
	Biddibirra Formation		
	CSA Siltstone		
Nurri Group	Great Cobar Slate Chesney Formation		Turbidites, conglomerates, mudstone, siltstone, sandstone; host to gold mineralisation at The Peak, New Occidental and New Cobar
Kopyje Group			Shallow marine shelf deposits and minor volcanics, predominantly along the eastern margin of the Cobar trough
Girilambone Group		Cambro-Ordovician	Turbidite sequence with minor volcanics, deformed and metamorphosed; Silurian granitoid intrusions
<i>Note: marked unconformity between Cambro-Ordovician and Silurian sediments</i>			
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6.2 Local and Property Geology

The CSA mineralisation occurs in five known systems: Eastern, Western, QTS North (QTSN), QTS Central (QTSC) and QTS South (QTSS) (Figures 3 and 6). The mineralisation is structurally controlled, associated with fault/shear zones and arranged in an en-echelon pattern. The Cobar Fault and the Chesney Fault are the major controlling faults at the CSA mine. The mineralised systems occur at the intersections of two sets of steeply dipping (~85°) structures, a dominant north-northeast ("NNE") trending set (S1) and a NNW trending set (S2). These two structural trends formed due to east-west compression leading to a complex fault/shear system with dilation zones (S3) at intersections. The NNE shears can be up to 100m wide and contain parallel quartz veining of variable intensity.

Within the five mineralised systems, multiple lenses of mineralisation occur; lenses typically are 5-30m wide, have short (<300m) strike lengths but long vertical continuity down plunge (>1,000m). The lenses are interpreted by CMPL as discrete parallel to sub-parallel stacked lenses (Figure 6).

The host rock for the mineralisation, the CSA Siltstone, contains thinly bedded siltstones and mudstones with fine to medium grained sandstones. Bedding strikes north-northwest and dips steeply west. Cleavage trends north and dips steeply east.

QTSN is developed from 600m below surface and is the main mineralised system at CSA, currently containing around 65% of the total copper metal in the estimated Mineral Resource and accounting for approximately 80% of current production tonnes. QTSN consists of around 30 separate lenses which trend north-south and extend down plunge from 600m to >2,000m. To date, the deepest mineralised intercept at QTSN is at around 8,050m Relative Level ("RL"), 2,200m below surface with surface at 10,250mRL. The main lenses consist of semi- massive to massive chalcopyrite bounded to the north and south by zones of chalcopyrite and quartz veining.

QTSC was discovered in 2014; it is located 300m south of QTSN and is developed from a depth of around 1,200m below surface (Figure 6). The system consists of two principal lenses with strike lengths of 150m and widths of 10m.

QTSS is located approximately 200m south of QTSC at a depth of around 700m below surface. QTSS is essentially mined out except for the QR1 lens which was discovered in 2005. This lens lies below and to the south of the mined-out area and has a down plunge extent in excess of 400m, a strike length of 90m and a maximum width of 15m. The mineralisation consists of a zone of quartz-chalcopyrite-chlorite veining.

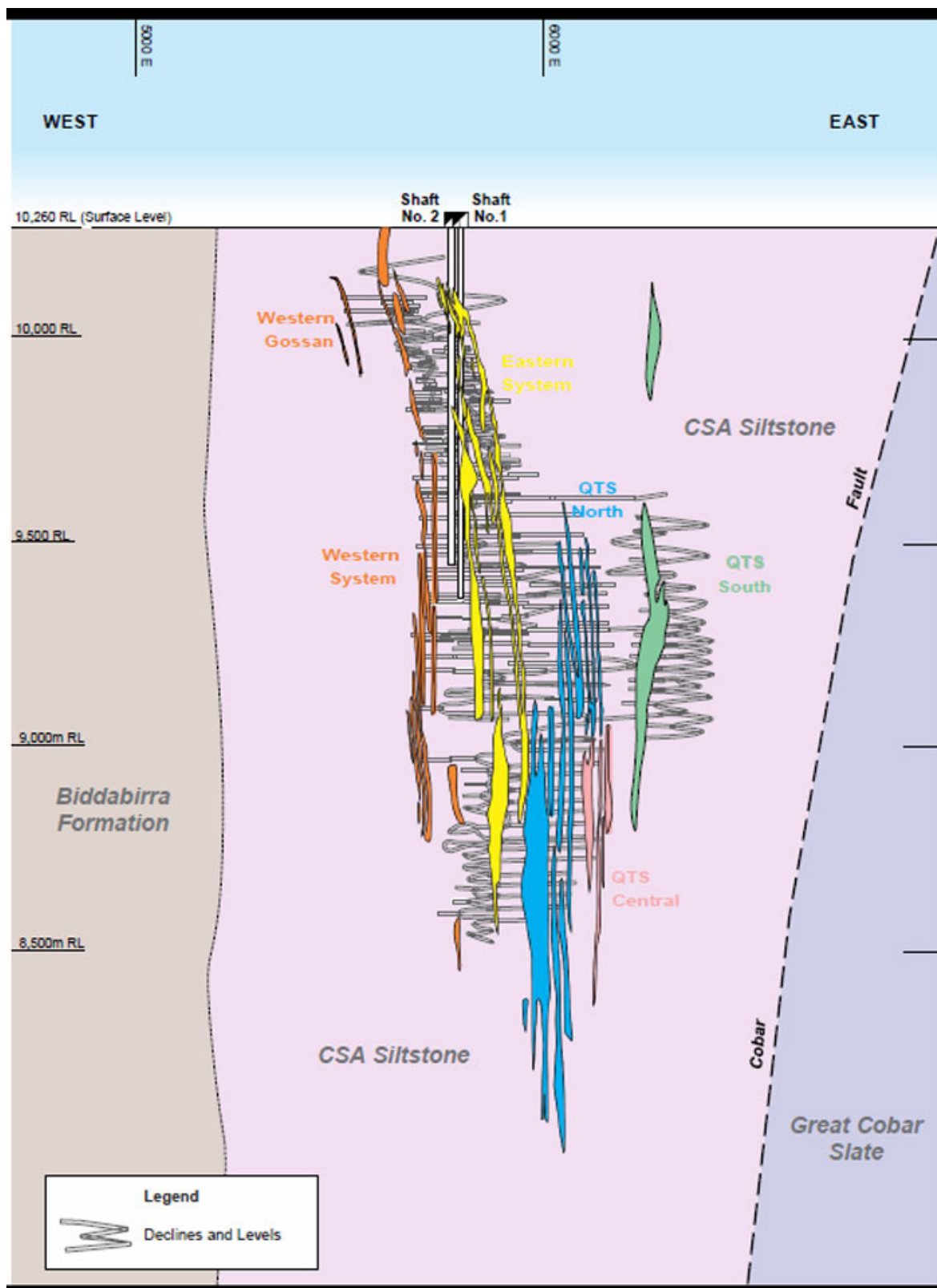
The Eastern system is located 100m west of QTSN, starting at 250m below surface and consisting of two principal lenses with strike lengths of 50-80m and widths of 10m. Copper mineralisation occurs as quartz-sulphide veining in chlorite-altered siltstone, with occasional pods of massive sulphide.

The Western system outcrops at surface and approximately the upper 100m of the sulphide mineralisation has been oxidised. The system is hosted in pervasively silicified and chloritised siltstone. Mineralisation occurs as zones of quartz-sulphide veining with a number of small high-grade pods of copper or lead-zinc. The lead-zinc mineralisation is concentrated in the upper portion of the system with copper dominant at depth. There are four narrow, copper-rich lenses which have a strike length of around 45m, an average width of 7m and extend down plunge up to 200m.

6.2.1 Mineralization and Alteration

Chalcopyrite (CuFeS₂) is the dominant copper sulphide phase in all five systems. Copper mineralisation occurs in three distinct forms: as massive sulphide with dominant chalcopyrite and minor pyrrhotite (iron sulphide) and cubanite (CuFe₂S₃), as semi-massive sulphide with either quartz or chlorite alteration and associated with quartz- sulphide veining of variable intensity. Massive sulphide contacts can be sharp, but the majority of mineralised lenses have gradational contacts with a mineralisation envelope occurring around the more massive mineralisation.

Cubanite is present as a minor copper species, mainly in QTSC. Sphalerite (zinc sulphide) and galena (lead sulphide) are also present but principally only in the upper part of the Western system which is the only system of the five that is exposed at surface. There are no lead-zinc lenses included in the CSA resources or the Cube re- stated Mineral Resource. Silver (Ag), grading 10-50 grams per tonne ("g/t") is present as acanthite (Ag₂S) and shows a weak to moderate correlation with copper. Good metallurgical recoveries are achieved and a high-quality copper concentrate produced grading around 26-27% Cu with silver credits.



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CSA Mine

Figure 6
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GEOLOGY SECTION PROJECTION - LOOKING NORTH
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7 EXPLORATION

7.1 Summary of Exploration

7.2 Historical and Current Drilling

The CSA deposit was discovered in 1871 with a further discovery of copper-rich mineralization in 1905, however, a slump in metal prices and an underground fire led to the closure of the mine in 1920. Zinc Corp Ltd (through its subsidiary Enterprise Exploration) explored the area from 1947 to 1957 and commenced re-development work in 1952. Cobar Mines Pty Ltd was created in 1956, mining recommenced in 1962 and production commenced in 1965 from the Eastern (Cu-Zn) and Western (Pb-Zn-Ag) System lenses.

The QTS System was discovered in the mid-1970s with the QTS North lenses being main source of the copper ore. CMPL came under the ownership of Conzinc Riotinto of Australia (CRA) in 1980, Golden Shamrock Mines (GSM) in 1993 and Glencore in 1999. During this time, there have been ongoing periods of geochemical and geophysical data acquisition, shallow RC drilling and deeper diamond drilling.

Extensive geochemical soil sampling was undertaken across CML5 in the mid-1970s, 1993 to 1995, and from 2006 to 2008. Pulps from these campaigns have been re-assayed for multi-elements with current laboratory methods in 2021.

Geophysical surveys across CML5 include early 2DIP, ground magnetics and gravity, airborne EM, more recent IP/MT (MIMDAS), ongoing DHEM of diamond drill holes and fixed loop EM (FLEM) in 2021 and 2022.

Relatively shallow RC drilling along strike of the mine to the north and south has further delineated geochemically anomalous zones from prospects such as Spotted Leopard and Pink Panther south of the mine to prospects GSM and Kendi north of the mine, and Western Gossan and Block 19 immediately west of the mine. (Figure 7).

Diamond drilling around the mine (such as at Western Gossan and QTS North), and at prospects such as Tailings Dam and Stoney Tank on the eastern side of CML5, has continued to intersect base metal mineralisation.

The CSA deposit has been drilled using fully cored diamond drill holes drilled either from surface or underground, primarily using NQ size (47.6mm diameter core). The deposits have been defined by over 6,500 holes totalling approximately 900km of core, although data from many of the historical drill holes is not used for current resource estimation, being located in the upper mined out levels of the deposit; current resource estimates are based on approximately 3,900 drill holes and more than 39,000 samples. Underground diamond drilling over the last five years has averaged 22,000m per year, with rates of 24-25,000m per year achieved over the last two years.

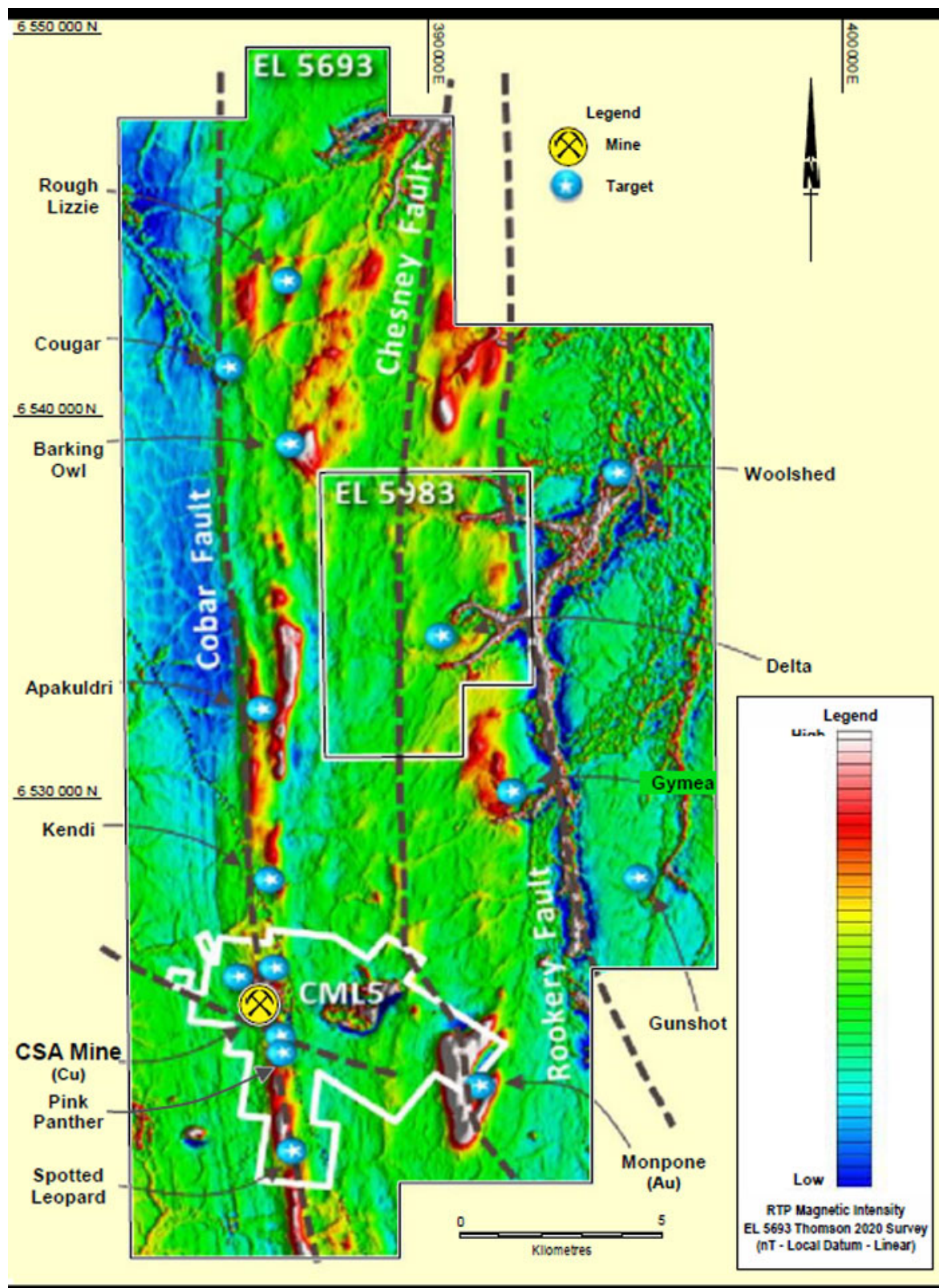
7.3 Exploration – Non-Drilling

7.3.1 Geophysical Surveys

7.3.1.1 2001 Hoistem Survey

In 2001, the entire extent of CML5 was included within a much more extensive 'HOISTEM' survey, which covered ~70% of surrounding tenement EL5693, for a total of 1,874line-km; the survey was carried out under the direction of consultant geophysicist Steve Collins whose report on the results forms the basis of the comments below. The Normandy HOISTEM helicopter-borne electromagnetic (EM) system comprised a single wire 20m diameter transmitter loop with a centrally mounted receiver slung beneath a helicopter, as such the system is symmetric with respect to flight direction. Survey parameters comprised 100m spaced east-west lines flown with a nominal detector terrain clearance of 30m. The receiver recorded 112 channels of off-time decay signal each of which is 112.7 microseconds in duration. The measured decay signals were binned into 10 groups.

At the time of this survey, the Hoistem system was still in development. A change was made to the electronics of the system half-way through this survey, resulting in significantly lower noise levels which are apparent in images of the data for the later time groups. The contractor carried out standard processing to remove bird swing and system self-response, but grouped results were found to still contain some system noise which manifested itself as a corrugation in the presentation images. The data were passed through a decorrugation micro levelling process to produce shaded enhanced images for interpretation.



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CSA Mine

Figure 7
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NEAR MINE EXPLORATION TARGETS
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In 2019, the Government of NSW and Geoscience Australia flew an Xcite Airborne Electromagnetic (“AEM”) survey at a height of 60m, with the sensor suspended 30m below, along 116 east–west lines. The lines were typically about 55km long and between 2.5km and 5km apart. A total of 9-lines of the 2019 Xcite AEM survey covered the area of the 2001 Hoistem; comparison showed the 2001 Hoistem and high quality 2019 AEM data agree well in the early EM channels (0.4-1.2ms). This upgraded the reliability and usefulness of the 2001 Hoistem AEM data and has been reliably used to identify and interpret geophysical signatures that might be associated with prospective structures and enhanced weathering due to sulphides at depth or lithological variations.

7.3.1.2 2005 Mopone IP-Resistivity Survey

The eastern section of CML5 covers part of an extensive offset pole-dipole IP-resistivity survey undertaken by Search Exploration Services Pty Ltd in March 2005 under the direction of consultant geophysicist Steve Collins. The offset pole-dipole array comprises a central line of 100m transmitter electrodes (each in turn connected to a single remote electrode) with a parallel line of receiver dipoles on either side. Line spacing for this survey was 200m; transmitter electrode spacing and receiver dipole size was 100m. The data was processed to 3D inversions on completion of the survey, but degraded by the effects of receiver cabling problems, not all of which could be resolved. The data were further processed to 2D IP and resistivity offset inversion sections in-house in 2020; some, but not all of the data problems were resolved. These inversions were converted to a format suitable for importation into a 3D LeapFrog geological model.

The Mopone magnetic anomaly coincides with a resistive zone at depth; no significant IP anomalism was noted. The configuration of the offset pole-dipole array means that the shallowest sections of the area could not be resolved in any detail.

7.3.1.3 2006 – 2007 MIMDAS Survey

Following a successful trial of 3D MIMDAS in early 2006, 2D MIMDAS surveys were conducted to the north and south of the CSA Mine; principally targeting the Cobar Fault. IP, resistivity and MT data were acquired by Geophysical Resources and Services Pty Ltd between the 4th of December 2006 and 14 November 2007 using the M.I.M Distributed Acquisition System (“MIMDAS”). Approximately 22 line km of these surveys were within CML5. A “standard” 2D MIMDAS pole-dipole/ dipole-pole IP configuration was used with dipole spacing 100m and line spacing 400m. Initial inversion modelling of data from the North Block has been completed with good indication of structure, although often poorly resolved.

MIMDAS IP and MT Data from the CSA Mine was inverted to return possible causative models. It is believed that the MIMDAS survey has detected the ore package with the DC Resistivity and MT methods. The technique as implemented at CSA would seem to be able to locate any similar deposit in a similar geological regime to approximately 500m depth. If the survey area was centred over the know system proper, it is anticipated that resolution of individual conductors might have been gleaned from the Inversion results. The data, particularly the chargeability data, although of very good quality in a repeatability sense, has proven difficult to interpret due to contamination from EM effects. The ore packages to the south of the survey area are most likely responsible for this contamination. However, with the EM signature being so unique, it may be able to be used in a comparative exploration sense. Less conductive deposits would lend themselves to detection by the induced polarisation method as EM effects would not dominate the secondary voltage decays as has been the case at CSA. A resistivity anomaly occurring on the south-eastern limits of the survey area has been detected and noted.

7.3.1.4 2012 – 2019 Ground Gravity

CMPL commissioned Precision Exploration Services between 2012 – 2019 to collect ground gravity data across CML5 and over the Cobar and Chesney Faults on EL5693. Gravity data was collected using a Lacoste & Romberg Model “G” gravity meter, on 100m x 100m grids, with 50m x 50m grid infills to the north and south of the CSA Mine and over the Mopone prospect on the eastern margin of CML5. The gravity data has proved useful for mapping structures, particularly NNE and NNW crosscutting structures, which have a controlling factor on mineralisation at the CSA Mine.

Between the 1970 – 1990 Cobar Mines and CRAE collected ground gravity data using a Lacoste and Romberg (L & R) Model G Land Gravity Meter with data collected every 30m-50m along east-west lines 300m-400m apart, plus infill stations across CML5 and surrounding tenement EL5983. MIM Geophysicist, Terry Harvey, reprocessed the 1970 – 1990 and recent CMPL gravity data to produce composite products,

7.3.1.5 2020 Airborne Magnetism and Radiometrics

Thomson Aviation Pty Ltd were engaged to undertake an Airborne Magnetism and Radiometrics (“AMR”) survey covering EL5693, which encompasses CML5. The survey was completed on 50m spaced east-west orientated lines, with 500m spaced north-south tie lines, at a nominal survey height (terrain clearance) of 35m. Survey equipment specifications are summarised below:

The survey provided agreement with previously mapped regional structures, will deliver increased structural understanding of the region surrounding CML5 and will form a basis for future planning of exploration programs.

7.3.1.6 2021-2022 FLEM

Gap Geophysics Australia Pty Ltd (“GAP”) were commissioned to conduct a Fixed-Loop Electromagnetic Survey (“FLEM”) encompassing the CSA mine between May 2021 and February 2022. The survey employed one of GAP’s high-power EM systems which consisted of a GeoPak HPTX-70 or HPTX-80 transmitter and two setups of an EMIT SMARTem24 receiver coupled with a 3-component Supracon High-temperature Super-conducting Quantum Interference Device (“SQUID”) sensor. The survey consisted of 24 loops (~1200m x 900m), 50m east- west spaced stations on 100m north-south spaced lines, for approximately 11-lines per loop, in total the survey covered approximately 26km² of highly prospective ground encompassing the CSA mine and along strike.

The survey was a technical success in its ability to detect previously known mineralisation at Pink Panther, located 1km to the south of CSA. Subtle FLEM anomalies have been detected north along strike of CSA that coincide with geochemical anomalism suggestive of QTS-style sulphide mineralisation at depth; these anomalies will be targeted in the 2023 Diamond Drilling Campaign.

7.3.2 DHEM

Down-hole Electromagnetic surveys (DHEM) are a proven to be an effective method for detecting Cobar-style mineralisation, since 2016 DHEM surveys are conducted on completion of diamond drilling campaigns. DHEM surveys post 2000 have been undertaken by Outer Rim Exploration Services Pty Ltd, GEM Geophysical Surveys Pty Ltd and Gap Geophysics Australia Pty Ltd, all data is available and of moderate to very good quality. Summary of recent DHEM surveys follow.

7.3.2.1 2018 CSA Mine DHEM Survey

Downhole Electromagnetic (DHEM) surveys were completed in August 2018 by Gap Geophysics Australia Pty Limited (GAP), a total of 10,490m was logged on fourteen drillholes over five near-mine prospects (Kendi, Pink Panther, Spotted Leopard, QTS North and QTS South. The survey utilised a Digi Atlantis DHEM sensor, Smartem receiver and Gap Geopak HPTX-802 transmitter. The EM responses along three mutually orthogonal vectors (A, U, V) were measured by the down-hole probe.

The DHEM surveys have produced fair to good quality data. A total of fourteen holes were surveyed with DHEM with six holes containing anomalies, three of which being off-hole anomalies at the QTS North prospect that warranted drill testing. The conductors modelled at the QTS North prospect are being diamond drill tested in early 2023.

7.3.2.2 2020 QTS South DHEM Survey

Down-hole electromagnetic (DHEM) surveying of nineteen holes at the QTS South (upper) deposit and one historic hole (DDHSL7) at the Pink Panther prospect were carried out by Gem Geophysics in September 2020. The survey utilised a Digi Atlantis DHEM sensor, Smartem receiver and Geonics TT100 transmitter. The EM responses along three mutually orthogonal vectors (A, U, V) were measured by the down-hole probe. A total of 9,935m was surveyed at a station interval ranging from 2.5m-15m. The surveys were designed to test for off-hole conductive mineralisation and for extensions to the known chalcopyrite mineralisation.

The DHEM surveys have produced fair to good quality data. The DHEM data collected from within and close to the known mineralisation is consistent with the results from the 2018 DHEM surveys. A total of twenty holes were surveyed with DHEM and seven of these holes contained anomalies that warranted modelling. Data returned from seven holes contained anomalous electromagnetic (EM) responses that warranted modelling. Six of these EM responses were modelled at QTS South Upper deposit and provided small southern extensions to the mineralisation or occur in zones indicating greatest grade or thickest intervals, however current drilling closes these zones, no further drilling is currently warranted. Modelled conductors from drillhole QSDD040 returned a relatively high modelled conductance and could represent mineralisation immediately south and east of the QTS South ore body, these conductors will be drill tested in 2023.

7.3.3 Geological Mapping

7.3.4 Geochemistry

Throughout the early 1970s, Rotary Air Blast (“RAB”) geochemical campaigns were conducted over CML5 and the surrounding tenement EL5693. The programs were typically conducted on 30m spaced east-west by 300m spaced north-south grids, with infill lines at 150m north-south spacing. The 1970 campaigns proved successful in identifying geochemically anomalous areas within CML5 such as the GSM, Stoney Tank, Falcon, Block 19 and QTS South to Spotted Leopard trend. Other than the QTS South to Spotted Leopard trend, the remaining prospects have received minimal attention and exploration since being identified.

Between 2003 – 2007, CMPL undertook power auger geochemical surveys on 50m x 50m sample grids in the near-mine area and 100m x 100m grids on regional prospects within CML5. In total 2,032 power auger samples were collected by CMPL and analysed by ME-MS43i (Three Acid Digest) for 21 elements, with eastern CML5 pulps having been re-assayed in 2021 -2022 by ME-MS61 (Four Acid Digest) for 48 elements plus Au by fire assay. The anomalies identified in the 1970s geochemical campaigns correlate well with early 2000 geochemical surveys; the multi-element data has proved useful in delineating new mineralization on CML5. Base metal mineralisation within the Cobar region typically has geochemical haloes that extend less than 100m in residual soils. Soil sampling conducted around the CSA Mine shows a weak and sporadic Cu anomaly 100ppm – 550ppm and a more consistent Pb anomaly 100ppm – 2960ppm, which extends to a maximum of 200-250m from mineralisation, most notably around the Western Gossan. The 2023 diamond drilling campaign has been designed to target high priority geochemical anomalies adjacent to regional scale structures and in zones of structural complexity highlighted from the 2020 AMR survey. Geochemical surveys have proved highly successful in the Cobar Basin at detecting blind ore bodies.

7.4 Exploration – Drilling

The CSA deposit has been drilled using fully cored diamond drill holes drilled either from surface or underground, primarily using NQ size (47.6mm diameter core). The deposits have been defined by over 6,500 holes totalling approximately 900km of core, although data from many of the historical drill holes is not used for current resource estimation, being located in the upper mined out levels of the deposit; current resource estimates are based on approximately 3,900 drill holes and more than 39,000 samples (Figure 8). Underground diamond drilling over the last five years has averaged 22,000m per year, with rates of 24-25,000m per year achieved over the last two years. (Figure 9).

Resource definition drilling in active mining areas at QTSN is carried out with a drill hole spacing of around 20m north-south by 37.5m vertical. At QTSC, QTSS, Western and Eastern mineralised systems, drill hole spacing is nominally 20m north-south by 20m vertical due to the narrower mineralised lenses. Wider drill hole spacing is used in exploration areas.

The mineralised host rocks are generally very competent below the weathered zone and core recovery averages above 95%. All CSA drill holes are systematically surveyed (drill collars and down hole) and geologically and geotechnically logged and photographed. Drill hole logging includes recording lithology, structures, weathering, alteration, and rock quality designation (“RQD”). Drill core is nominally sampled at one metre intervals, while honouring lithological contacts. Half-core samples are sent for sample preparation and assaying.

7.4.1 Surface Drilling

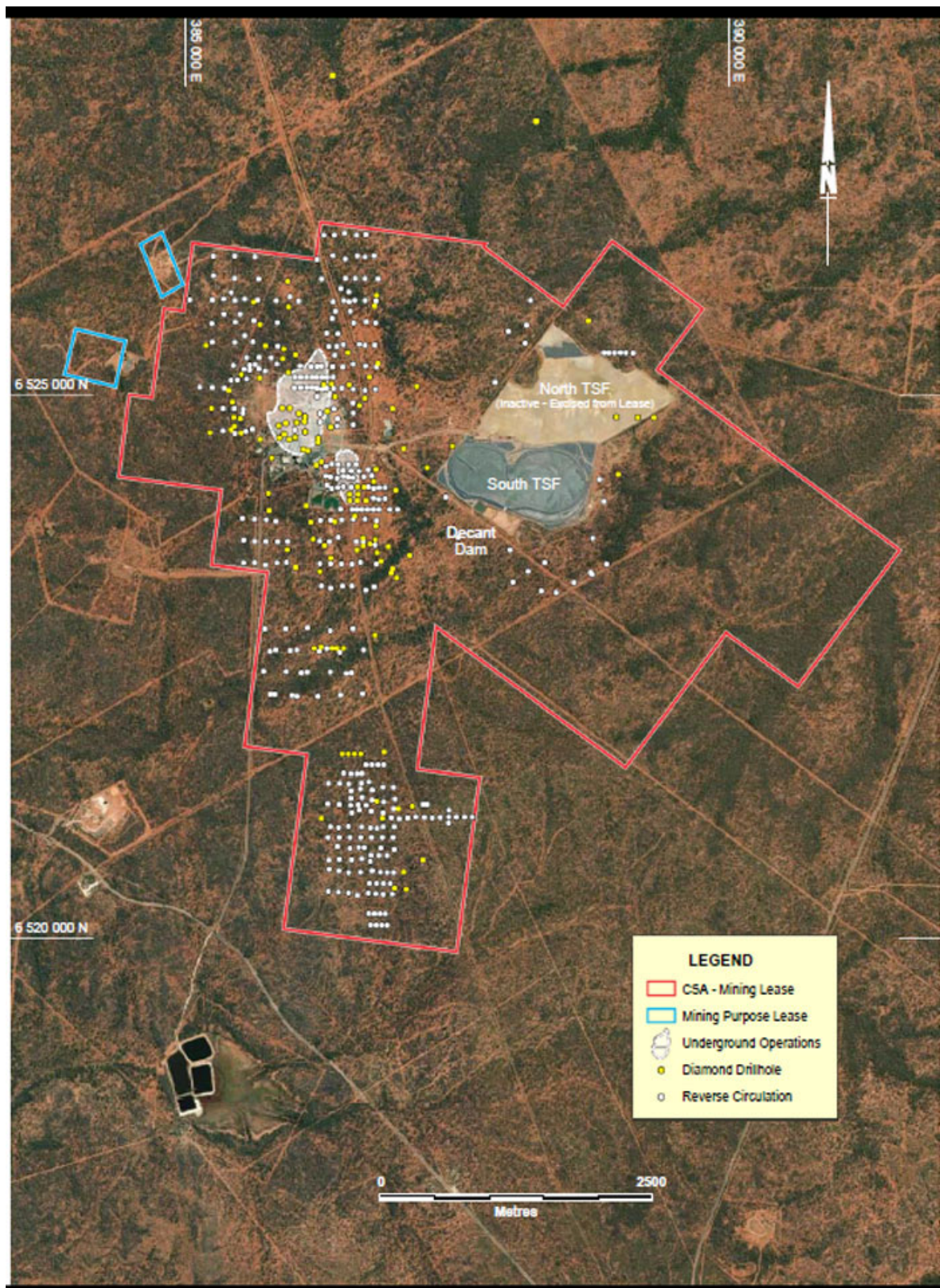
The current database of surface drilling lists some 412 RC drill holes totalling 52,818m with an average depth of around 128m. RC holes have generally been drilled to 120m to 150m depth, being just past the weathered zone and into fresh rock, although some RC holes have been drilled to as deep as 250m.

Historically, some 18 shallow RC holes were drilled in 1984 (under CRA ownership) into Block 19 which is a NNW base metal (Pb-dominant) trend from the CSA mine. A further 43 RC holes were drilled into Spotted Leopard (a southern prospect in CML5 along strike of mine) in 1990-91.

There are also records for some 255 surface exploration diamond drill holes within CML5 totalling around 150,960m for an average hole depth of 592m. These include historical (pre-Glencore) holes up to the current diamond drill program that commenced in mid-2022.

Diamond drill holes have been drilled on a range of prospects including Western Gossan and Block 19 (west of mine), GSM/Kendi (north of mine), Pink Panther and Spotted Leopard (south of mine) as well as targeting extensions to the QTS North, South and Central mine systems.

As the Mineral Resources and Mineral Reserves presented in this report lie within CML5, exploration activities on the remaining exploration tenements are largely excluded from this Report.

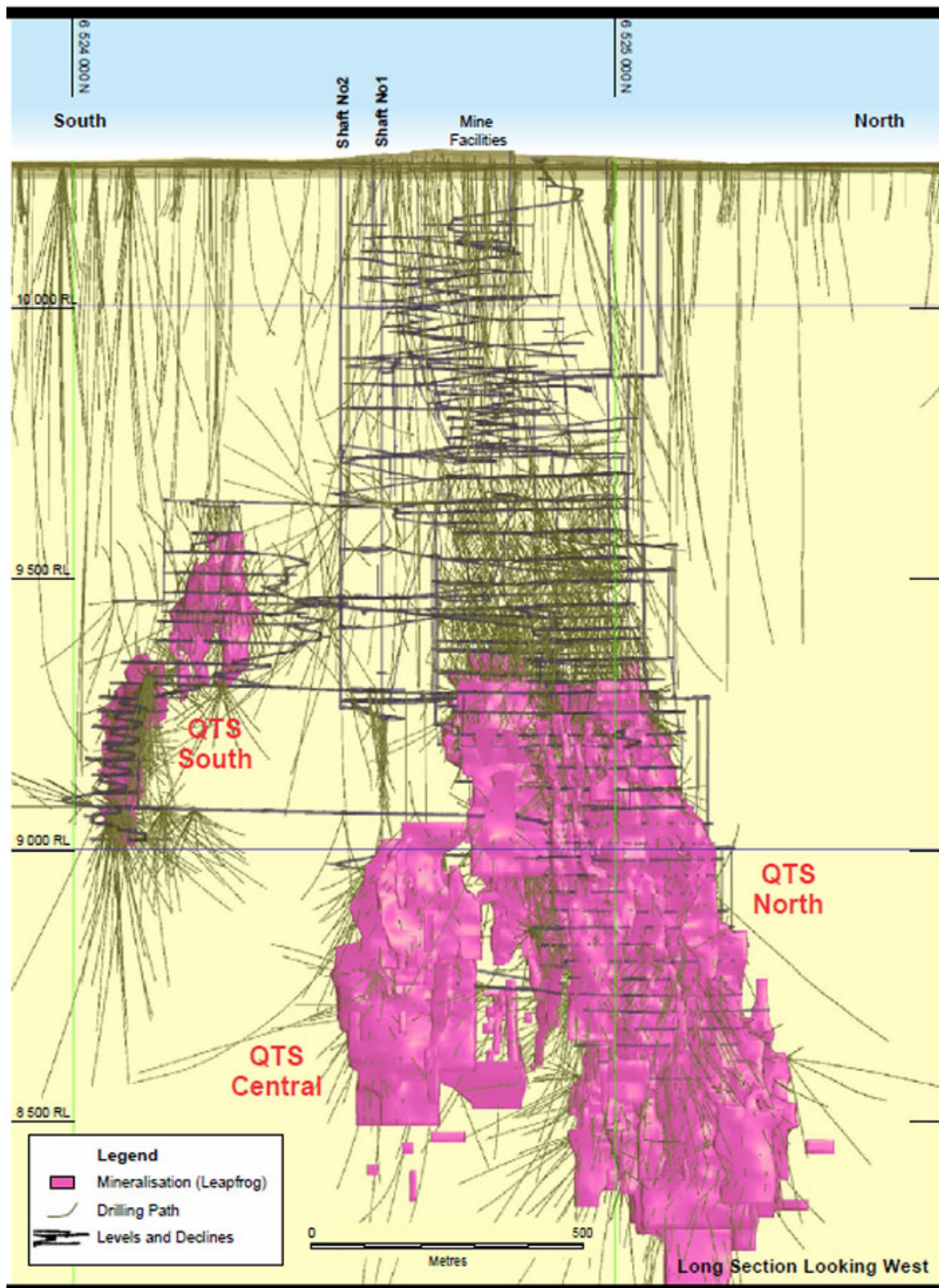


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Figure 8
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SURFACE EXPLORATION DRILL COLLAR LOCATIONS
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Figure 9

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HISTORICAL EXPLORATION DRILLING - LONG SECTION

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7.4.1.1 Historical Drilling Campaigns 2000 – 2016

Surface diamond holes drilled within CML5 from 2000-2016 include:

- 2003 – 2 holes at Tailings Dam
- 2004 – 2 holes into the QTS System
- 2005 – 1 hole near mine northeast, 7 holes at Tailings Dam
- 2006 – 3 holes testing the QTS System, 3 holes at Tailings Dam
- 2007 – 1 hole near mine northeast, 1 hole at Pink Panther and 1 hole at Tailings Dam
- 2008 – 1 hole testing 1993 holes at GSM anomaly, 1 hole near mine south
- 2009 - no holes identified as being drilled this year
- 2010 – 2 holes in Western Gossan
- 2011 – 2 holes testing mineralisation in CM30 at Western Gossan, 1 hole near mine south, 1 hole at Pink Panther
- 2012 – 1 hole near mine south
- 2015 – 3 holes at Pink Panther
- 2016 – Some 7,500 m at Pink Panther.

Surface exploration diamond drilling during this period was relatively minimal until copper intersections and DHEM anomalies at Pink Panther resulted in increased drilling in 2016.

7.4.1.2 2017 – 2020 Near-mine Reverse Circulation Drilling

A substantial amount of the total near-mine RC drilling occurred in the 2017 to 2018 period, with some additional holes in 2019 and 2020.

A small subset of RC drilling, including 17 holes in 2010, 6 holes in 2018 and 1 hole in 2020, have been drilled for the purpose of establishing water bores. A further nine holes are currently (February 2023) being drilled south and east of the tailings dam. The water bore holes are also sampled and assayed.

Over the course of 2017 to 2018 a significant number of holes were drilled including:

- 65 at Kendi (along strike of QTS North)
- 62 at Spotted Leopard
- 58 at Pink Panther (south of QTS South)
- 32 at QTS North
- 18 at QTS South
- 12 at Western Gossan.

In 2019, a further 17 holes were drilled at QTS South and 8 holes were drilled at QTS Central in 2020.

In general, the multi-element geochemistry from the RC drilling confirmed the strength of the geochemical anomaly along the eastern side of the mine corresponding to QTS-style (chalcopyrite) mineralisation. These results provide additional support for the plan to progress further exploration diamond drilling on the eastern side of the known QTS North lenses.

7.4.1.3 2017 – 2020 Diamond Drilling Campaigns

Interest in Pink Panther and QTS South continued with some 11,091m of diamond drilling in 2017.

In 2018, a total of 24,107m of diamond drilling tested mineralization at QTS South, QTS North, Kendi, Spotted Leopard and Western Gossan.

In 2019 some diamond drilling was undertaken at QTS North, however the major emphasis of the 2019 programme was the delineation of Inferred resources at QTS South (discussed below).

7.4.1.4 2022 – 2023 Diamond Drilling Campaign

The 2022 campaign, consisting of 11 holes, was based on modelling from the 2015 DHEM surveys of previous drill holes and targeted the QTS North, QTS South and Western Gossan areas. Drilling continued at QTS North from January 2023.

Western Gossan lies immediately west of the historical Western System. DHEM data from holes CM50 (drilled in 1993 under Golden Shamrock Mines ownership) and SRDD11002 (drilled in 2011) produced two strong conductors that aligned with significant mineralisation in some historical drill holes (circa 1958).

Five holes drilled in 2022 (3,771m) intersected two zones of massive sulphide mineralisation with significant sphalerite and lesser galena and chalcopyrite. The zones matched the modelled conductors; these holes were surveyed in January 2023 by DHEM and assay results are currently awaited.

The QTS North and South drill targets were based on DHEM data from holes drilled in 2018-19. Two modelled conductors aligned with mineralisation in nearby holes. As of early February 2023, three holes had been completed and intersected chalcopyrite mineralisation within Fe-chlorite alteration near the modelled conductors. Assays have not yet been received. A fourth hole is due to commence drilled in February 2023.

Two holes at QTS South are due to be drilled in March-April 2023. Modelling from DHEM surveying in 2020 on some 19 DDHs indicated three potential conductors.

7.5 Underground Drilling

Underground drilling is directed at extending and defining mineralisation below the current working levels in order to define reserves ahead of mining (Figure 10). During the year some holes may be drilled for purely exploration purposes and some of the resource definition holes may be extended to test nearby mineralization. The aim of these drilling programs is to replace, as a minimum, the Reserve material extracted each year.

As shown in Figure 10, in conjunction with continuous copper production over the past 10 years, CSA has successfully maintained replenishment of Mineral Resources each year.

In addition to resource and exploration drilling as described above, drilling is also completed for geotechnical purposes ahead of mine infrastructure programs (e.g. vent rises) and for other mine infrastructure such as paste fill, electrical and water supply. All holes are geologically logged and sampled as required. Selected holes are geotechnically logged as coverage requires.

At the end of 2022 there were approximately 3,500 diamond holes and 46,000 samples contributing to the CSA Mineral Resource with hole information dating as far back as 1950.

7.6 Geotechnical Data

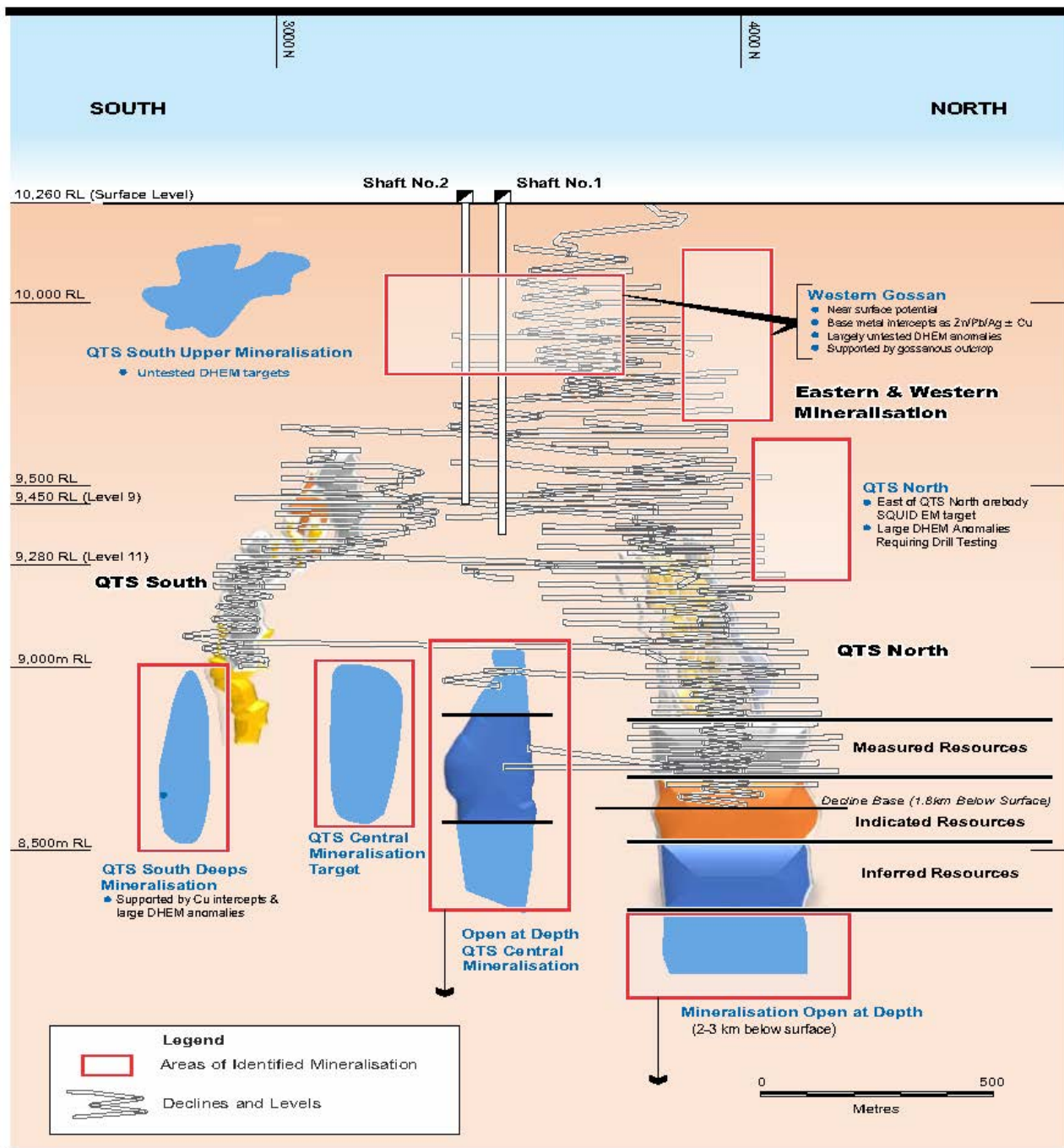
Geotechnical core logging of RQD and Q Prime parameters is undertaken for all drilling and has been collected for over 20 years; this together with the detailed geology mapping completed on all development levels forms an excellent basis for assessing the ground conditions at the mine.

All CSA diamond drill core is comprehensively logged including the recording of:

- geology, mineralization and alteration
- core recovery
- RQD.

In addition, drill core logged specifically for geotechnical assessment is logged for:

- rock strength
- number of joint sets or fractures including:
 - type of structure
 - roughness
 - shape
 - infill minerals
 - alpha and beta angles (if core has been oriented)
- Orientation quality (if core has been oriented).

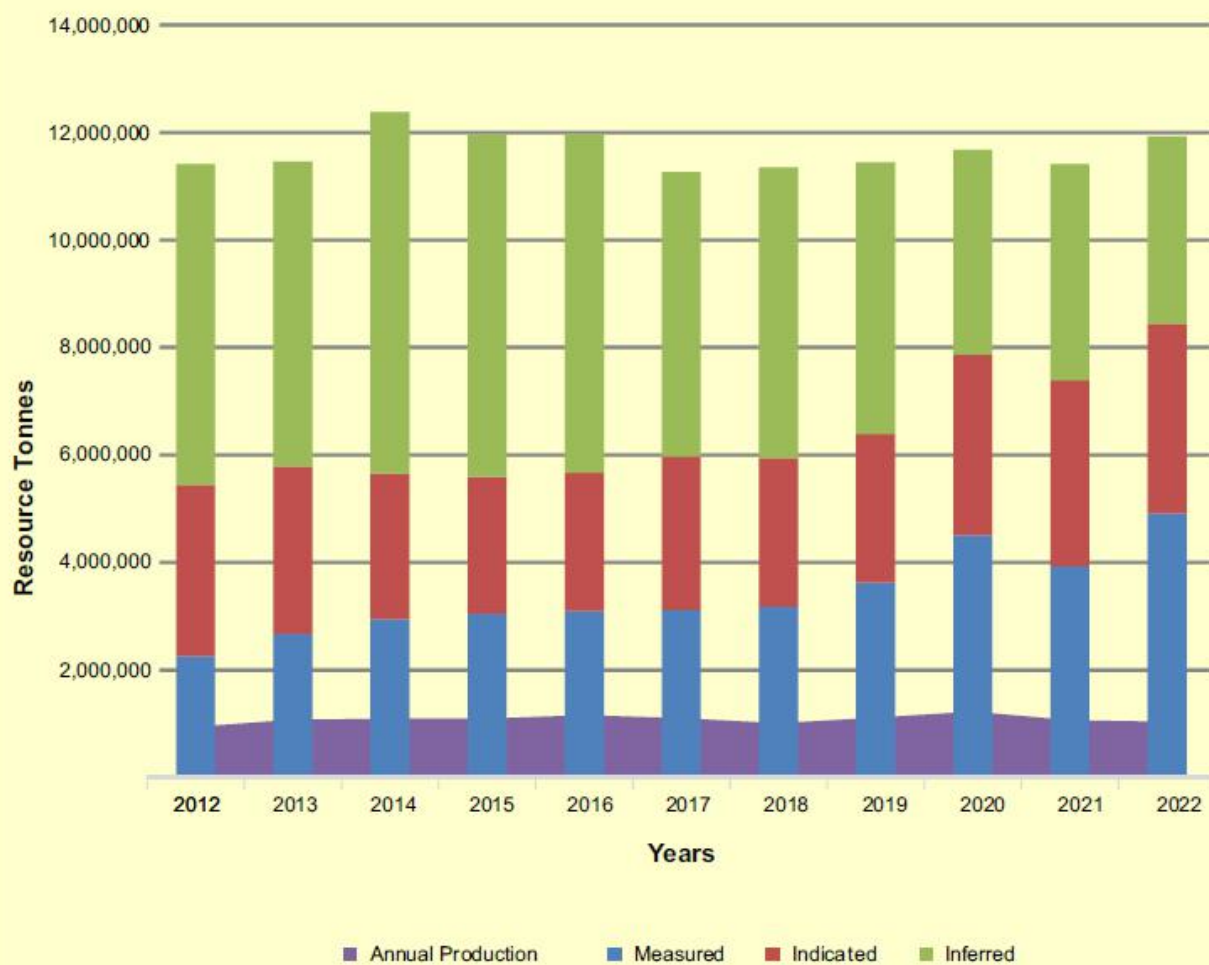


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CSA Mine

Figure 10
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LONG SECTION CSA LODES - POTENTIAL MINE LIFE EXTENSION
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CSA Mine

Figure 11

HISTORICAL RESOURCES vs PRODUCTION

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This geotechnical information is stored in the drillhole database. All core is photographed before being cut for sampling.

Underground development mapping (face and backs) is undertaken to delineate lithology, mineralisation, alteration, significant structures and geotechnical features of significance. The underground mapping allows for the preparation of detailed geological/geotechnical level plans, that are available for geotechnical analysis and stope planning.

The quantity and quality of the geological and geotechnical information collected is sufficient to describe the physical characteristics of the rock mass and major structures, and to classify the rock mass using industry standards for sublevel open stoping mines.

7.7 Hydrological Data

The CSA mine is a dry mine with little water inflow other than that introduced by mine fill and service water. No hydrological drilling or ground water monitoring is required other than recording the pumped volumes from the mine dewatering system.

7.8 Qualified Person's Opinion on Exploration Interpretations

The QPs consider the drilling and exploration programmes completed at CSA to be appropriate for near-mine exploration and resource replacement. In-fill drilling is undertaken at an appropriate rate to allow the steady conversion of resources to reserves as required and to provide the necessary information for detailed mine planning.

Geotechnical parameters are collected in conjunction with underground diamond drilling and geotechnical data is captured within the drill database for consideration during the estimation of Mineral Reserves and Mineral Resources and in the detailed design of underground stopes and development. CSA maintains an extensive database of geotechnical data, has a solid understanding of the geotechnical characteristics of the mine and undertakes continuous improvement activities on a regular basis.

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8 SAMPLE PREPARATION, ANALYSES, AND SECURITY

8.1 Assay Sample Preparation and Analysis

Core processing follows the standard sequence of metre mark-up, quantification of recovery, RQD determination, geological logging, sample mark-up, core photography, bulk density determination and sampling.

The sampling procedure includes interval checks, cutting intervals, sampling intervals, inserting standards, sampling duplicates, weighing samples and dispatching samples. All parts of the core processing cycle are tracked and recorded electronically.

Core yard technicians review the core and check the sample intervals as identified on the sampling sheet, including checking to ensure that the sample intervals satisfy length requirements (0.4 – 1.1m for NQ core). The geologist corrects any errors or discrepancies.

Core is cut according to the core cutting procedure with a CoreWise diamond core saw.

Once the entire hole is cut, trays are laid out in order on the racks or on pallets. Sample intervals are marked onto the tray before sampling, allowing the correct sample intervals to be written onto the remaining half core. The core is cut in half with one half submitted to the laboratory for analysis and the other half returned to the tray. The half core to be analysed is sampled into pre-numbered calico bags with sample numbers from the bags written on the sample sheet before sampling. Sticks of half core longer than approximately 8cm are broken in order to reduce the risk of sample bags tearing during transport.

Sample preparation and assaying is carried out by independent laboratory, Australian Laboratory Services (“ALS”) in Orange, NSW, using an aqua regia digest and the Inductively Coupled Plasma Atomic Emission Spectrometry (“ICP-AES”) analytical method, with analysis for a standard suite of elements including copper, zinc, lead, and silver. Comprehensive Quality Assurance/Quality Control (“QA/QC”) protocols have been in place since 2004 and include insertion of standards (supplied by Ore Research and Exploration Pty Limited), blanks and duplicate samples at a frequency of approximately 1 in 30 samples. CSA monitors the QA/QC data reports; the sampling and assaying data for the main elements are considered reliable and without material bias and sample security arrangements are appropriate and satisfactory. CSA’s relational drillhole database is an AcQuire database which is a site-managed system.

Due primarily to Covid-19 impacts on CSA geological and core sampling staff during 2020-2022, a backlog of around 8,500m of un-logged and/or un-assayed drill core has developed. CSA has increased resourcing in this area in an effort to reduce the backlog as quickly as possible.

8.2 Bulk Density Determinations

CSA has compiled a database of around 16,000 bulk density values by testing one sample from each core tray (approximately one sample per 6.5m of core) and determining density using the water immersion method. A regression formula based on the copper assay of the samples tested has been derived from this data. Since 2017, CSA has used ALS to carry out density measurements; CSA advises that the ALS data aligns well with the site- developed regression formula.

8.3 Quality Assurance and Quality Control

Regular analysis of CSA mine standards, inserted with each batch sent to the laboratory, commenced in 2007. These are in addition to normal laboratory standards inserted in the process by ALS. All QA/QC data are stored in the CSA acQuire database.

Sample weights are measured both before the samples leave CSA Mine site, and before the samples are prepared for analysis at the ALS laboratory.

8.3.1 Standards and Blanks

External standards and blanks are inserted into the sampling sequence for each drill hole assay submission. One blank and eleven standards derived from CSA mineralization were prepared, supplied and certified by Ore Research and Exploration Pty Ltd for use at CSA.

Standards to be inserted are specified by the logging geologist on the sampling sheet. The procedure requires a minimum of one standard for every 30 samples, with the selected standard representing a copper grade similar to the estimated copper grade in the surrounding samples. The core yard technician removes the label from the standard so that it cannot be identified by the laboratory. It is placed in the appropriately numbered sample bag and secured. Blanks are inserted periodically, principally following high grade samples to check for contamination in the laboratory processing stream.

8.3.2 Field Duplicates

Duplicate intervals are specified by the geologist on the sampling sheet and are collected approximately every 30 samples. Duplicate samples are also inserted at the end of the hole. The core yard technician removes the remaining half of the core from the selected interval and places it in the appropriately numbered sample bag. For those intervals with duplicate samples, no core remains in the tray.

A separate dispatch is completed for each drill hole.

Comparison of original and duplicate (second half of drill core) assay results for the period 2002 to 2021 indicate good performance for copper, with a correlation coefficient of 0.98. Silver field duplicates are more variable than copper with a correlation coefficient of 0.79.

8.3.3 Laboratory QA/QC

ALS inserts standards into the sample stream as part of its internal QA/QC procedure. Assay results for these standards are supplied with results for the samples submitted for analysis. Assay results for laboratory standards are also stored in the acQuire database. Again, laboratory standards are checked on receipt and incorporated in the QA/QC reports generated within the acQuire database and any issues are reported immediately to the laboratory for resolution.

8.4 Security and Storage

Geological records and assay data are stored in an acQuire database. Drill hole information is stored as collar, down hole survey, assay, geology, specific gravity and geotechnical data.

Drill hole location data are entered manually, survey and assay data are uploaded from the survey tool and laboratory downloads respectively. Geology data is entered manually from paper logs or logged directly into acQuire via a laptop computer. A significant proportion of drill data in the database is derived from historic hardcopy drill logs.

All data entered is tracked via various registers, including Diamond Drill Hole Register, Diamond Drilling Spreadsheet, Core Processing Checklist and UG Sampling Register.

There are four levels of access to the database. 'Read only' access is permitted for "public" users, 'restricted data entry' access for "data entry" users and 'write access' to data tables for "acQuire user" users. This hierarchical security structure allows only the database manager full access to the data.

8.5 Qualified Person's Opinion on Sample Preparation, Security and Analytical Procedures

Cube has undertaken a review of historic (2020 and 2021) and current 2022 CMPL reports detailing the sample preparation, analysis and security. Cube is satisfied that the current practices undertaken by CMPL are to industry standard and provide assay data which are sufficient to support the estimation of a Mineral Resource.

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9 DATA VERIFICATION

9.1 Internal Data Verification

Basic database validation checks are carried out by CMPL personnel. These include sample from and to depths, geology depths, record duplication and missing collar duplication checks, as well as collar survey and down hole survey checks. Assay certificates are verified against acQuire dispatch and laboratory job numbers. Extensive random checks of the digital database are made against hardcopy/pdf format assay certificates and geology logs.

Core recovery data has only been collected consistently at CSA since 2004. Data from 2004 shows an average core recovery greater than 95%. Poor core recoveries are not considered to have a significant impact on the CSA resource.

9.2 Review of CMPL's QA/QC

Cube has undertaken a desktop review of historic (2020 and 2021) and current 2022 CMPL Mineral Resource reports containing control charts detailing the results of the CSA mine QA/QC. The process of systematic QA/QC monitoring has been in place since 2007. Cube's review of standards and laboratory and field duplicate results has identified no material issues, indicating the assay data used by CMPL is without material bias due to laboratory processes and that results are repeatable with an appropriate level of precision and accuracy. Cube is satisfied that the current practices undertaken by CMPL are to industry standard and provide assay data which are sufficient to support the estimation of a Mineral Resource.

9.3 Geological and Operation Reconciliation

Confidence in the geological interpretation and estimation at CSA is supported by a history of reconciliation of mined tonnage and grade compared with the stope tonnes and grade depleted, the latter being based on the resource and reserve estimates. CSA tracks the stope grades for the Undiluted Stope Design (resource grade), the Diluted Stope Design (the reserve grade) and the actual mined grades as reconciled to the mill. CSA uses a Cavity Monitoring System to obtain the final volume (tonnes) of each mined stope. The ore mined tonnes and grade are reconciled against the reported ore milled tonnes and grade, allowing for opening and closing stockpile figures.

Historically, CSA's stope reconciliation reports show reasonably good agreement between the Reconciled Ore Mined figures and the Diluted Stope Design (reserve) figures. Over a ten-year period to December 2021, the annual stope production reconciliations showed tonnage reconciliations averaging 103%, copper grade reconciliation averaging 104% and copper metal reconciliation averaging 105%. Reconciliation data for the last three years covering the period 2019-2021 is shown in Table 9.1 and indicates a reconciliation of 97% for tonnes, 97% for grade and 94% for contained copper metal.

The high grade nature of the deposit means that any ore losses or excess dilution can have a meaningful impact on ore tonnes and grade. The higher dilution seen in recent years appears to have had a negative impact on reconciliation.

Table 9.1

CSA Stope Reconciliation - Ore Mined vs Reserve – 2019 to 2021

Year	Category	Tonnage Mt	Grade % Cu	Contained Copper kt
2019	Reserve Depleted	0.844	4.34	36.8
	Ore Mined (Mill Reconciled)	0.911	4.18	38.1
	Mined vs Reserve	108%	96%	104%
2020	Reserve Depleted	1.108	4.06	45.0
	Ore Mined (Mill Reconciled)	1.067	3.86	41.1
	Mined vs Reserve	96%	95%	91%
2021	Reserve Depleted	0.816	3.94	32.2
	Ore Mined (Mill Reconciled)	0.695	3.97	27.6
	Mined vs Reserve	85%	101%	86%
Overall		97%	97%	94%

9.4 Qualified Person's Opinion on Data Adequacy

The QP is satisfied that the data on which the Mineral Resource has been based are of sufficient quality to support the estimation of a Mineral Resource.

10 MINERAL PROCESSING AND METALLURGICAL TESTING

10.1 Metallurgical Testwork

With 55-years of operating history (23-years under Glencore ownership), the CSA orebody mineralogy is well understood with the operating performance of the processing plant consistently achieving metallurgical recoveries in the order of 97-98% to produce a high-quality 26-27% Cu concentrate.

An overview of the standard metallurgical management activities performed during CSA operations along with a selection of historical metallurgical studies are summarised in the following sections. Some of these studies were investigative in nature and may not have resulted in significant modifications or adjustments to the processing facility.

10.1.1 Overview of Metallurgical Testing Practices

Being an operating mine, particularly one with such extensive operating history, CSA has established standard operating procedures for metallurgical management of the processing facility.

The operation employs dedicated metallurgical staff and conducts regular operational test practices using a combination of onsite and offsite laboratory testing.

The most comprehensive test regime employed by the metallurgical team on a regular basis is the Flotation Plant Survey which takes multiple samples from across all key process streams throughout the plant to establish a detailed mass balance and provide input into ongoing data analysis. The following outlines the key procedures employed in the survey:

- Sample collection follows the internally developed Safe Work Instruction - Flotation Survey Procedure, updated in November 2022, which is based on sample techniques reported in Wills' Mineral Processing Technology book from JKMRC Australia 7th Edition.
- Metallurgical samples from across 22 locations within the processing streams are taken in various set intervals and conducted in accordance with sample capture procedures.
- Standard onsite sampling and testing includes flotation, settling tests, On-stream Analyzer ("OSA") calibration samples, PSI flotation feed, Specific Gravity (SG) testing and moisture analysis.
- X-ray fluorescence ("XRF") analysis is conducted in the onsite laboratory to establish initial results used for short-term operational decisions and internal reporting.
- A selection of samples is then sent offsite to independent ALS Ltd. laboratory Service for assay using Inductively Coupled Plasma Atomic Emission Spectroscopy ("ICP-AES"), an analytical method used to detect and measure elements to analyze chemical samples.
- Samples requiring comminution analysis are typically sent to JKTech Pty Ltd. ("JK Tech" or "JK") laboratories at the University of Queensland
- Results received from onsite and offsite laboratories are then incorporate into a detailed data analysis and regression modelling process (outlined in Section 10.1.2)
- Site samples for analysis are kept and stored in the onsite laboratory.
- Offsite laboratory results are compared with onsite laboratory results to allow the metallurgical team to calibrate internal metallurgical models, onsite laboratory equipment and plant equipment.
- Results are regularly validated through repeat sampling, and statistical analysis; activities commonly requiring validated results include those required for adjustments of SG gauges of the flotation feed and concentrate thickener; in such cases, four samples are taken from each sample point to establish the average and standard deviation of the results.

10.1.2 Data Analysis and Regression Modelling

Testing procedures and results are supported by statistical analysis such as regression models, reproducibility tests, and variability mapping. During individual operational trials, test work is usually supported by statistical experimental design (t-tests) using the statistic computer package Minitab.

An End of Month Metal Reconciliation is based on a Matrix-mass balance approach, which involves data from several sources including:

- Offsite ALS Laboratory assay results
- Onsite laboratory XRF

- site and port stockpile information from Alfred H Knight (independent laboratory service), Qube Logistics (port operator), and Aurizon (rail operator)
- internal mining data

The mass balance is established to identify actual from reconciled residuals through the adjustment of standard deviations and Monte Carlo simulations. If the mass balance identifies discrepancies, data and instrumentation are reviewed in detail for readjustments.

Key analysis within the mass balance process includes assays of feed, concentrate and tailings streams. Composite samples are sent to ALS and for XRF in-house analysis.

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10.1.3 Planning and Forecasting

The Weekly, Monthly and Quarterly plans used in CSA's operations employ in-house calculated regression models to establish appropriate assumptions and forecasts. The regression model incorporates geometallurgical results, elemental to mineral conversion calculations, back-calculations, and mining figures (haulage and stope grades).

Two main components of the processing forecasts and their associated drivers are:

- Grinding Forecast
 - Mill Power Assessment - based on the Mine Future Ores Program conducted in 2020 by JKTech and based on comminution models reported by Napier Munn 1999, Mineral Comminution Circuits
 - Throughput Model - power regression models which incorporate CSA SAG and ball mill powers and parameters.
- Flotation Forecast
 - Recovery and Concentrate Grade - regression models developed from geometallurgy, mineralogy and flotation testwork
 - Tailings Grade Prediction - back-calculated from the calculated feed grade, milled tonnes, and copper metal tonnes
 - Anticipated Feed Grade - calculated from the mining figures, haulage tonnage and stope copper grades.

As shown in Table 5.1, CSA has maintained excellent consistency in copper and silver recovery, due largely to the continual improvement on internal geometallurgical models. As CSA continues to develop existing orebodies at depth, extend existing orebodies laterally, discover new orebodies and, potentially, treat third-party ore sources, the metallurgical team will continue to undertake testwork and improve the accuracy of these models.

10.2 Deleterious Elements

The influence of deleterious elements on CSA's operations is low, however regular testing and analysis is performed to ensure any elevated levels are managed effectively. Close attention is given to stopes containing relatively high amounts of iron, zinc and lead (which may vary from 0.01 to 0.6%). Any elevated levels are immediately communicated to mine geologists. Laboratory batch flotation selectivity, and mineral liberation test work on future mineralization is conducted to prepare planning inputs and minimise any influence on product grades.

10.3 Test Laboratories

CSA maintains an onsite laboratory which is capable of conducting flotation tests, settling tests, On-stream Analyser (OSA) calibration samples, flotation feed slurry testing, SG testing and moisture tests.

Offsite laboratories are used for independent validation and test work. ALS Laboratory Services in Orange, NSW and JK Tech at the University of Queensland are the offsite laboratories commonly used.

ALS Ltd. is a global company headquartered in Brisbane, Australia, which provides testing, inspection, certification, and verification services out of over 370 sites across 65 countries. With 18,000 staff, ALS operates throughout Australia, Asia, the Pacific, North America and South America, Europe, and Africa. ALS is ISO17025 and ISO9001 certified.

JKTech offers consultancy and laboratory services, specialist software and equipment, and professional development courses to mining companies, particularly centred around comminution, flotation and hydrocyclone and metallurgical assessment. JKTech is a subsidiary of the University of Queensland.

10.4 Mine Metallurgical Test Work on Future Orebodies Study – JKTech 2020

JKTech was engaged to conduct metallurgical testing and a geometallurgical study program as part of continuous improvement practices at CSA. The objective of the study was to improve the forecasting of throughput, copper concentrate grade and concentrate recovery for QTSN and QTSC orebodies. The test program included 44 samples in total, consisting of 39 geometallurgical and 5 characterisation samples taken from a carefully selected array of drill hole samples.

Table 10.1 outlines the tests performed and the intended purpose of each test.

Table 10.1
2020 Future Orebody Metallurgical Testing Programme (JK Tech)

Test	Purpose
Equotip	Equotip hardness measurements can be used as a comparative hardness ranking tool to identify domains of similar hardness in large rock volume. Determines if comminution hardness can be predicted using Lieb hardness measurements
JK Rotary Breakage Test	Allows rapid testing of particle breakage under energy single point contact and low energy repetitive impact conditions. Provides indicative Axb for SAG mill assessment
SMC	Used to predict comminution circuit throughput as well as rock mass characteristics and blasting properties. Provides a cost-effective means of profiling an orebody. Provide scale-up of the JK Rock Breakage Test Lite
Bond Ball Mill Work Index	A standard test for determining the 'Bond Ball Mill Work Index' (grinding power requirement) of a sample of ore by measuring the resistance of the material to crushing and grinding. Provides input to ball mill design and optimization
Point Load Index Test (PLT)	Used to simultaneously characterize rock for blastability and comminution processes. Determines if comminution hardness can be predicted using PLT measurements
Mineralogy and Assay	Undertaken by a Mineral Liberation Analyser (MLA) particle mineral analysis. Used to identify mineral composition, deleterious elements, grain size, extent of liberation, particle size distributions and maximum flotation recoveries. QEMSCAN measurements taken, supported by Chemical assay (ME-OG62 four acid digest method). Determines modal mineralogy which can affect hardness – proxy input

On completion of the study, key internal geometallurgical, mass balance, grinding and processing regression models were updated to improve the statistical accuracy of predictions.

10.5 Comminution

Design and range values for CSA's primary comminution properties are outlined in Table 10.2. These values have been established through various testing campaigns conducted by CSA over the past 55 years of operation.

Table 10.2
Comminution Properties

Comminution Properties	Unit	Value
Abrasion Index - Range		0.03 - 0.24
Abrasion Index - Design		0.09
Bond Impact Crushing Work Index - Range	kWh/t	
Bond Impact Crushing Work Index - Design	kWh/t	19.0
SMC Drop Weight Index - Range	kWh/m ³	2.35 - 7.28
SMC Drop Weight Index - Design	kWh/m ³	4.77
Bond Rod Mill Work Index - Range	kWh/t	11.0 - 22.1
Bond Rod Mill Work Index - Design	kWh/t	16.7
Bond Ball Mill Work Index - Range	kWh/t	7.8 - 17.0
Bond Ball Mill Work Index - Design	kWh/t	15.3
Axb - Range		27 - 97
Axb - Design		40.3

10.6 Recovery and Concentrate Estimates

Design and range values for CSA's primary recovery properties are outlined in Table 10.3.

Table 10.3
Copper Flotation Results

Cu Flotation Concentrate	Units	Result
Cu Concentrate Grade (range)	%	24.0 - 29.0
Cu Concentrate Grade (design)	%	26.5
Cu Recovery (design)	%	98.0
Cu Recovery (for resource and reserve estimation)	%	97.5

10.7 Qualified Person's Opinion on Mineral Processing and Metallurgical Testing

Over the long operating history of the CSA mine, the QP is satisfied that the many metallurgical testwork programmes undertaken have been comprehensive and extensive. Section 10 provides a snapshot of some of this work. The mineralogical and metallurgical understanding developed from this testwork has resulted in the superior metallurgical recoveries and concentrate quality being consistently achieved from the process plant.

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11 MINERAL RESOURCE ESTIMATE

This section contains forward-looking information related to tonnage and grade for the project. The material factors that could cause actual results to differ materially from the conclusions, estimates, designs, forecasts or projections in the forward-looking information include any significant differences from one or more of the material factors or assumptions that are set forth in this sub-section including actual in-situ characteristics that are different from the samples collected and tested to date, and equipment and operational performance that yield different results from current test work results.

11.1 Introduction

CMPL undertakes Mineral Resource estimation in-house. As CSA is located in Australia and was previously owned and operated by GIAG, the Mineral Resource estimate ("MRE") was historically reported in accordance with JORC 2012 guidelines. The CSA Mineral Resource estimate is updated annually and consists of Measured, Indicated and Inferred ("MII") resources and is reported as at December of each year. Cube has reviewed CMPL's December 2020, December 2021 and December 2022 resource reports and supporting documentation. CMPL did not re-estimate the resource block model in December 2021 but merely updated the 2020 estimate based on mining depletion during 2021. The December 2022 CMPL Mineral Resource estimate was undertaken using all available drilling, geological and assay data as at September 2022 and depleted with strings and wireframes ("Void Model") as at 31 December 2022.

Resource estimation at CSA is based on long-standing procedures, mostly dating from the mid-2000s. CMPL closes off the drill hole database (new geological and assay data) at the end of September each year to allow time to re-model the resource before re-estimating resources for each system. In parallel, a Void Model is developed using the actual stope voids mined plus an estimate of the stopes to be mined to end December. The voids are deducted from the resource model to obtain an estimate of the remaining in-situ resource. The new MRE is used by the mining and technical services departments for mine planning of the following year and is used by the company for the end of year MRE statement. In April each year, the estimates are updated using actual voids mined to end December plus any additional drill data.

CMPL defines resource wireframes for each mineralised lens in the five systems – QTSN, QTSC, QTSS, Eastern and Western. Interpretation of the wireframes is based on geological mapping in the mine, drill core logging, and the structural model that has been developed over time. The wireframe contacts are interpolated between developed levels and then extrapolated beyond mine development at 5m section increments using drill hole data, core photography and assay data. CMPL uses a threshold value of 2.5% Cu from the assay database to guide the interpretation. An outer mineralisation envelope is defined for each model using the regional S1 shear interpretations as boundaries.

Separate block models are established for each of the five systems. The parent block size of 5mE x 5mN x 10mRL is used for all models. Assay data is composited to 1m; no grade cuts are applied to the copper data and only a few composite values are capped for silver. Variography is carried out for each mineralised lens if there is sufficient data available. Grade estimation for copper and silver is carried out using Ordinary Kriging ("OK") in three passes with the first pass search ellipse based on the variogram range; the search ellipse dimensions are doubled for the second pass and quadrupled for the third pass. Interpreted wireframe boundaries are treated as hard boundaries for grade estimation. The density regression formula is applied using the estimated block copper grade to determine the block bulk density value.

Resource categorisation of Measured, Indicated and Inferred is initially assigned to the blocks informed in Pass 1, 2 and 3 respectively. This initial categorisation is manually modified based primarily on the drilling density. In general, areas with average drill hole spacing of 20 x 37.5m or less in QTSN and 20m x 20m for QTSC, QTSS, Eastern and Western, are categorised as Measured resources, with 40 x 70m or less as Indicated resources in QTSN and 40m x 40m in the other four systems. Inferred resources are categorised in areas with a spacing exceeding that of the upper limits on Indicated resources. CMPL separates Pass 3 blocks into Inferred resources and a fourth category 'Unclassified' for areas of low confidence with sparse drilling; the Unclassified material is not included in the reported MRE.

11.2 Available Data

In all, more than 46,000 samples from more than 3,500 diamond holes contribute to the CSA Mineral Resource. This drilling ranges from as far back as 1950 to the present; however, the bulk of the drilling contributing to the estimation has been completed since 2000. The diamond holes for estimation prior to 2000 are located predominantly in the upper levels, and represent 51% of the drill data; diamond drilling post 2000 has been focussed primarily on the lower levels and represents approximately 49% of the drill data. The average drillhole length (surface and underground) is approximately 160m with the maximum over 1,100m. In general, drill spacing increases with distance from development with nominal 20m north-south by 20m vertical spacing for 2 to 4 levels ahead of the mining front, expanding to 40m by 40m and greater below this. For QTS North, the bulk of drilling prior to 2017 was at the above described spacing, but during 2017, following an external analysis of the drill spacing, this was increased to 20m north-south by 37.5m vertical.

Diamond holes are planned using a standard procedure. Core sizes vary, however the bulk of drilling used for the current resource comprises NQ2 and NQ3 core sizes, with lesser contributions from HQ, NQ, BQ, LTK48 and LTK60. Hole collars are marked up by the mine surveyors and checked again by the mine surveyors on completion of drilling.

The database currently includes some underground drill collars without verifiable collar survey pickups. Of these and since 2000, 392 are relevant to the current CSA Mineral Resource, with 235 relating to QTS North, 77 to Western, 44 to Eastern, 35 to QTS South and one to QTS Central. These drill collar locations are based on planned coordinates.

A review of lens shape and the resource model revealed no obvious distortion that could be attributed to incorrect location of drill intersections. Based on this, it is considered unlikely that actual drill collar locations vary significantly from the planned locations.

The remaining unsurveyed holes in QTS North, QTS South, QTS Central, Eastern and Western have sufficient support from surveyed collars from the same drill pads, and a high enough density of adjacent drill holes with surveyed collars to be confident in their use in the resource models.

As a minimum standard, down hole directional surveys are carried out at 15m, 30m and every 30m following. Extra downhole surveys are conducted as deemed necessary. The azimuth of the 15m survey is at times affected by the proximity of the drill rig or ferrous ground support and therefore is monitored closely. Surveys that show significant deviation are checked and, if considered erroneous, are removed from the database. Since late 2016, multishot surveys, with surveys taken every 3m, are taken on completion of each hole.

11.3 Geological Models

Mineralisation at CSA is largely controlled by major shears, and consists principally of massive, semi- massive, and vein sulphides, with the dominant sulphide being chalcopyrite. Mineralisation away from the lenses is narrow and discontinuous, occurring mainly in minor shears within barren altered sediments. Mapping and core logging are the main sources of information, and greatly assist in interpretation of mineralisation.

Interpretation of lenses at CSA is based on geological mapping and diamond drilling data. Mineralised boundaries are digitised from geological maps and the resulting strings are allocated to the appropriate RLs. These boundaries are then interpolated between developed levels and extrapolated beyond development at 5m intervals and adjusted using diamond drill hole records, core photography and assay data. Boundary strings are aligned to drill hole lithology/grade boundaries to ensure location accuracy. When the complete set of bounding strings for an individual lens has been generated and checked, the strings are linked to produce a solid lens wireframe.

Lens interpretations are completed using a threshold value of 2.5% Cu, maximum internal downhole waste of 3m and a minimum lens width of 3m.

No external dilution is added as lens block model margins are constrained by the geological interpretation while overall models are constrained by regional shears.

11.4 Mineralised Domain Coding

CMPL applies a systematic domain code to each lens wireframed within the five shear systems. The CSA shear systems are Western, Eastern, QTS South, QTS Central and QTS North. The domain codes ("ROCKZO NE") consist of three digit codes for mineralised domains and two digit codes for low grade/waste domains as presented in Table 11.1.

Table 11.1
ROCKZONE CODES

Mine Area	ROCKZONE
Western – low grade/waste	10
Western – Mineralised	100, 101,110,120,121,130, 140, 150, 160, 170, 180, 190,200
Eastern – Low grade	30
Eastern Mineralised	700, 710, 720.to.810
QTS South – Low grade/waste	10
QTS South Mineralised	100, 200, 300, 400, 450, 500, 550,600, 650
QTS Central – Low grade/waste	40, 50, 60
QTS Central- Mineralised	850, 860, 870, 880, 890, 900, 910, 920
QTS North-Low grade/waste	20
QTS North-Mineralised	300, 310, 320.to.570

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11.5 Composites

Within the ROCKZONE wireframe domains the majority of sample intervals are 1m in length. CMPL has determined that there is no correlation between sample length and copper grade. Sample intervals within individual ROCKZONE wireframe domains are composited to 1m lengths for use in estimation.

11.6 Exploration Data Analysis and Grade Capping/Outlier Restrictions

CMPL undertakes a statistical review of each ROCKZONE domain within the five shear systems to confirm domain characteristics and identify outlier copper and silver grades. The copper statistics presented generally confirm that the domain distributions are appropriate for a linear interpolation method such as Ordinary Kriging. Silver distributions within ROCKZONE domains are shown to be more variable than copper indicating a need for controlling the influence of outliers when using a linear interpolation method.

Within the copper grade populations, high grades are a feature, indicating the presence of massive copper sulphide. Their occurrence is considered by CMPL to be acceptable in terms of geological continuity and location within sulphide lodes, hence no grade capping is applied to the copper grades. While extreme outliers are noted for silver, most are considered to be acceptable within the domain population. A small number of silver grade caps have been used at QTS South and QTS Central. Grade capping replaces the original grade with a selected maximum for interpolation.

11.7 Variography

Three-dimensional continuity analyses were conducted using Snowden Supervisor software. Traditional variogram models were generated by ROCKZONE for copper and silver using the 1m composite data files. The variograms models were updated for QTS North, QTS Central, Eastern and Western systems, where copper and silver variables were transformed to normal distribution (normal scores) before variogram calculation and back-transformed for estimation purposes.

The downhole variogram was viewed for each ROCKZONE domain to determine the nugget effect as this direction is the most informed to understand inherent variance. The nugget effect for copper and silver was generally 10% to 35% of the total variability.

The copper and silver variogram models are often different. This is expected given the moderate correlation between the data sets. Magnitudes and directions of the continuity ellipses match the steep plunge and sub-vertical dip of the interpreted domains. The maximum copper ranges are generally longer than the silver equivalents indicating the lower variance of the copper data.

11.8 Block Model Definition

CMPL defines a three-dimensional block model for each of the five shear systems using Datamine Studio RM software. Block sub-division is not used.

11.9 Estimation/Interpolation Methods

Ordinary kriged grade estimation was performed using Datamine Studio RM software. The Datamine Dynamic Anisotropy option was used for the first time in 2014 (Hosken, 2014), resulting in improved search paths proximal to lens boundaries where a curved search is more appropriate.

Hard boundaries are applied using the ROCKZONE field and grade-capped composited data.

Copper and silver grades are estimated using a three-pass search process. The first pass search is based on an optimal search derived from Kriging Neighbourhood Analysis ("KNA") studies completed for QTS North, QTS South, Eastern, Western and QTS Central. The first pass uses a search distance equal to, or greater than variogram maximum ranges. The second pass typically uses double the primary search range. A third pass is used to ensure each domain is fully populated with an estimated grade using a search radius up to four and a half times the range of the primary search. The same minimum and maximum number of samples is applied to the three stages, with a maximum of four sample per borehole.

The KNA studies determined optimal block size, sample search radii, number of samples and discretisation. Block size and discretisation parameters have been maintained for models produced since the KNA studies were completed. Search sizes are updated each year based on updated variography.

11.9.1 Block size

A 5mE by 5mN by 10mRL block size is used for all mineralization systems.

The 2005 KNA study (Eastern System) resolved that a block configuration of 5mE by 10mN by 10mRL was appropriate, but did not consider 5mE by 5mN by 10mRL block size as an option. Inspection of the block size vs kriging efficiency and regression slope plot used in 2005 reveals that there is very little change in either kriging efficiency or slope for smaller block sizes, up to the chosen configuration while both efficiency and slope begin to deteriorate immediately past the chosen configuration. Given the proximity of this deterioration to the chosen configuration, and the stability of smaller block sizes, it is considered that a configuration of 5mE by 5mN by 10mRL would be a more suitable configuration for Eastern than that chosen in 2005.

11.9.2 Discretisation

The 2006 KNA study determined an optimal discretisation for QTS North and QTS South of 4 by 4 by 4. Similarly, the 2005 KNA study determined an optimal discretisation grid for Eastern of 2 by 4 by 4. These values are considered still appropriate and were retained for the current estimation.

The Western estimation uses a 4 by 4 by 4 discretisation grid and QTS Central 3 by 3 by 3.

11.9.3 Number of Samples

The minimum and maximum numbers of informing samples used for the current estimation vary according to lens, with an overall minimum of 5 and overall maximum of 30. These numbers are based on the KNA studies.

11.10 Density Assignment

Insitu bulk density data consists of 16,000 records, collected at a frequency of one determination per core tray (~6.5m for NQ).

A regression equation is applied for block model density determinations. Block model in-situ density is calculated using the estimated copper grade and the regression formula presented below, for all systems except the Western System:

$$\text{Insitu bulk density} = 2.816 + 0.0406 \times \text{estimated copper grade (Cu \%)}$$

For the Western system, insitu bulk density is determined by:

$$\text{Insitu bulk density} = 2.780 + 0.0400 \times \text{estimated copper grade (Cu\%)}$$

11.11 Validation

11.11.1 Visual Validation

Block models are validated visually by comparing the input data with the block estimates. Copper grade, kriging efficiency and search pass are viewed in detail with drillhole data density to assess estimation quality. In each case, there is a good correlation between data density and estimation quality (kriging efficiency).

11.11.2 Grade versus Elevation Plots

Grade versus elevation plots for each lens are reviewed. Each plot shows a good correlation between block and sample grades where the number of drillhole samples is high. In all cases, the plots show that the block grades represent a smoothed version of the sample grades, indicating the Ordinary Kriging 'smoothing' process has performed as expected. Modelled lens are also reviewed against detail underground face mapping (Figure 12).

11.11.3 Model versus Composite Statistics

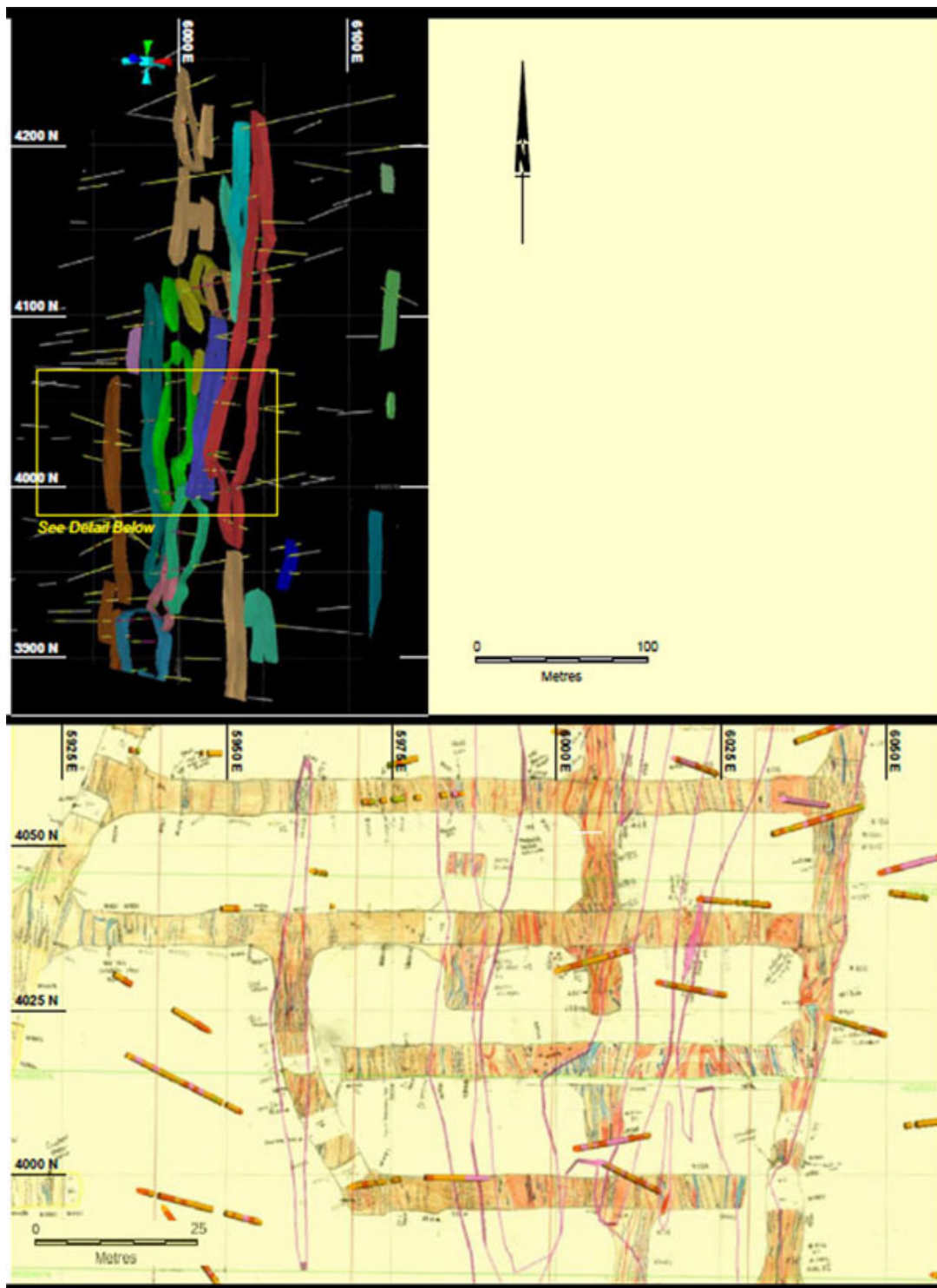
Model and 1m composite grades for each system are compared against wireframes and block model volumes. The sample and block grades are mostly within 10% of each other. In some cases, the sample grades are higher than the model grades, which often indicate the drilling is clustered on high grade zones. Ordinary kriging, by principal, is a least variance estimator and de-clusters the grades during the estimation process.

The wireframe and block model volumes compare well in all cases, with the difference in most cases <1%.

11.12 Confidence Classification of the Mineral Resource Estimate

Table 11.1 summarises the CSA Mineral Resource classification criteria with respect to kriging efficiency and drill data density for 300 lens and 850 lens respectively.

Eastern System above 9,070mRL is classified as Inferred due to the incorporation of historical assays with unknown analytical method.



Metals Acquisition Corp.

CSA Mine

Figure 12
BDA - 0230-01-April 2022

WIRE FRAME MODELLING MATCHING GEOLOGICAL MAPPING
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Table 11.1
CSA Mineral Resource Classification Criteria

Resource Category	General Description	Geostatistical Parameters
Measured	Majority mineralization developed and mapped. Sufficient diamond drill data to define contacts, continuity, grade and density with a high level of confidence. Diamond drill spacing of approximately $\leq 20\text{m}$ north-south by 37.5m vertical for QTS North and 20m north-south by 20m vertical for other systems.	Majority search pass 1. Copper kriging efficiency > 40 RESCON=1
Indicated	Drill intersections too widely spaced to ensure continuity, but adequate to assume continuity. Features as for Measured can be estimated with a reasonable level of confidence. Diamond drill spacing of approximately $\leq 40\text{m}$ north-south by 70m vertical (QTS North) and 40m north-south by 40m vertical (all other systems).	Majority search pass 1 and 2 Copper kriging efficiency $> 20 < 40$ where 1st pass is used. RESCON=2
Inferred	Not enough data to reliably predict contacts and grade continuity. Features as for Indicated can be estimated with a low level of confidence. Diamond drill spacing of approximately $\geq 40\text{m}$ north-south by 70m vertical (QTS North) and 40m north-south by 40m vertical (all other systems). Drill density is sufficient to give confidence that the lens persists down plunge/ dip	Majority search pass 2 and 3 Copper kriging efficiency < 20 where 1st pass is used. RESCON=3

11.13 Reasonable Prospects of Economic Extraction

The CMPL method of defining mineralised lodes is by location within shear structures and geologically mapped structures and the application of a 2.5% Cu threshold with a maximum of 3m of sub-grade over a minimum length of 3m. Based on the assumed stope break even cut-off of 2.2% Cu for underground stope mining applied in the reserve definition process, the defined Mineral Resource lodes have reasonable prospects of economic extraction.

The calculation of the stope break even cut-off grade used in the assessment of economic viability of Mineral Resources uses a mining cost of A\$98/t moved, a processing cost of A\$20/t milled, G&A costs of A\$19/t milled and other offsite costs of A\$50/t milled.

Further discussion is presented below in Section 12.6.

11.13.1 QP Commodity Price

The calculation of the stope break even cut-off grade is based on a copper price of US\$7,400/tonne. This price aligns with the price used at CMPL for mine planning and is an approximate 9% discount to the longterm Consensus copper pricing on February 1, 2023.

11.13.2 Depletion

The reported Mineral Resources have been depleted using surveyed wireframe volumes to flag blocks within each lode system (Figure 13). The QTS North, QTS Central, Eastern and Western block models were depleted with both 3D shapes related to development and depletion strings ("As-builts"). QTS South block model was depleted with strings only. The 3D shapes and depletion strings are supplied by on-site mining engineers. The resultant Mineral Resource is then assessed lens by lens, level by level, in conjunction with the mining engineers. Non- mineable components are excluded in spreadsheet format and the final resource tabulated.

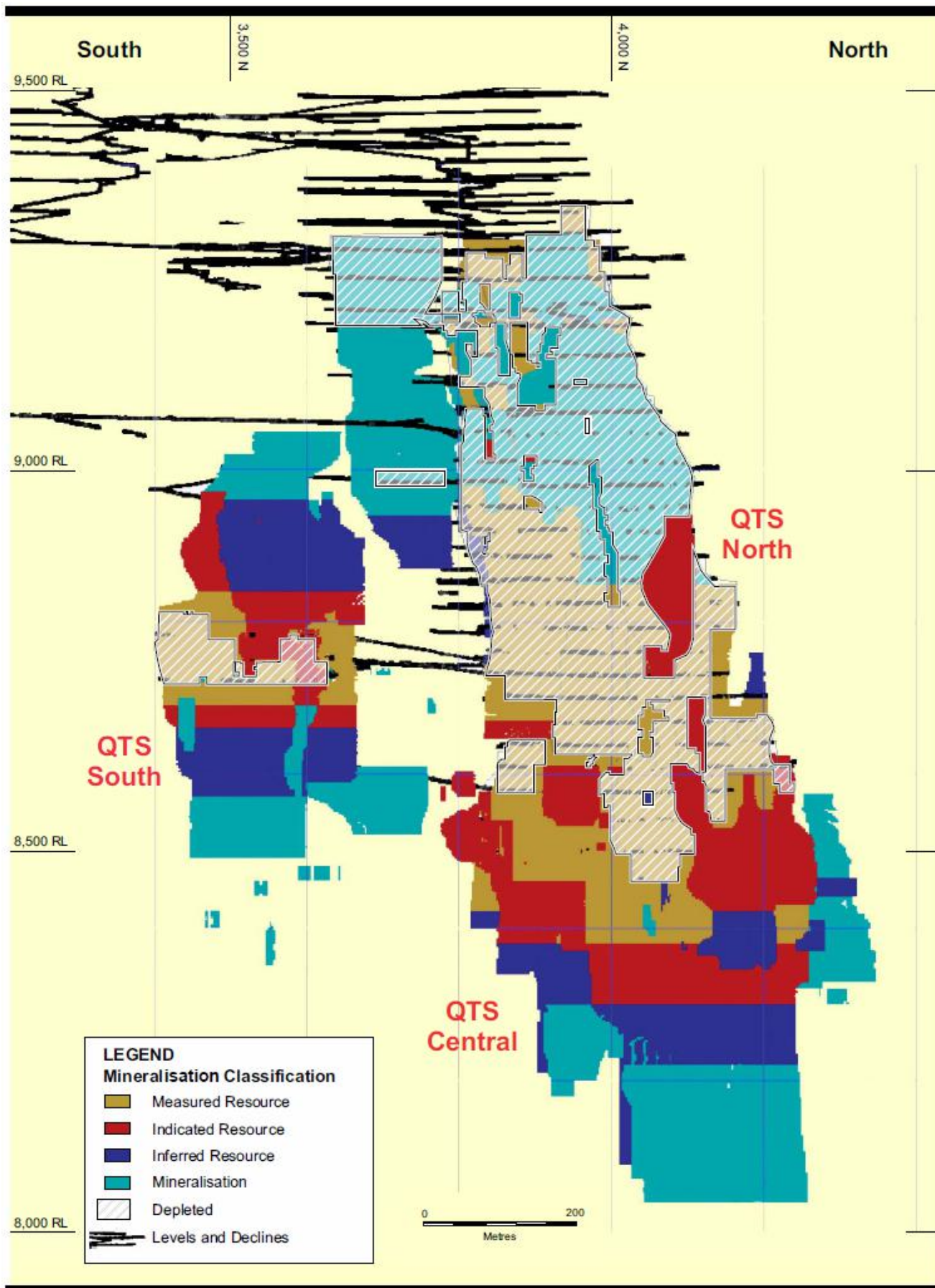
11.13.3 Mineral Resource Reporting Cut-Off

The Mineral Resource estimate is based on lode definition using geologically defined structures and application of copper grade constraints (2.5% Cu threshold over a minimum length of 3m) in combination with an underground stope mining method requirement of reasonable prospects of economic extraction.

11.14 Mineral Resource Estimate

The Mineral Resource estimate for the CSA Mine is reported here in accordance with the SEC S-K 1300 regulations. and are considered to have reasonable prospects of economic extraction. The Mineral Resources presented in this section are not Mineral Reserves and do not reflect demonstrated economic viability. The reported Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that all or any part of this Mineral Resource will be converted into Mineral Reserve. All figures are rounded to reflect the relative accuracy of the estimates and totals may not add correctly. Mineral Resource estimates exclusive of Mineral Reserves are summarized in Table 11.2. on a 100% ownership basis.

The effective date of the Mineral Resource estimate is December 31, 2022.



Metals Acquisition Corp.

CSA Mine

Figure 13
 BDA - 0230-02-Feb. 2023

CUBE DECEMBER 2022 RESOURCE LONG SECTION
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Table 11.2

Copper and Silver Mineral Resources Exclusive of Mineral Reserves as of 31 December 2022 - Based on a Copper Price of US\$7,400/t

System	Resource Category	Tonnes Mt	Cu %	Cu Metal Kt	Ag g/t	Ag Metal Mtoz
All Systems	Measured	0.0	0.0	0.0	0.0	0.0
	Indicated	0.0	0.0	0.0	0.0	0.0
	Meas + Ind	0.0	0.0	0.0	0.0	0.0
	Inferred	3.5	5.6	193	20	2.2
	Total	3.5	5.6	193	20	2.2

Notes:

- Mineral Resources are reported as of 31 December 2022 and are reported using the definitions in Item 1300 of Regulation S-K (17 CFR Part 229) (SK1300);
- Mineral Resources are reported Excluding Mineral Reserves;
- The Qualified Person for the estimate is Mike Job, of Cube Consulting Pty Ltd;
- Price assumptions used in the estimation include US\$7,400/tonne of copper and US\$21.70/troy ounce of silver; the copper price is an approximate 9% discount to Consensus copper pricing as at Feb 1, 2023;
- Geological mineralisation boundaries defined at a nominal 2.5% Cu cut off;
- Metallurgical recovery assumptions used in the estimation were 97.5% copper recovery and 80% silver recovery;
- Costs assumptions during cut-off grade calculation are A\$98/t ore mined, A\$20/t ore milled and A\$19/t G&A;
- Mineral Resources reported as dry, raw, undiluted, in-situ tonnes;
- Figures are subject to rounding.

11.15 Factors that May Affect the Mineral Resource Estimate

Areas of uncertainty that may materially impact the Mineral Resource estimates include:

- Movement in long-term metal price and exchange rate assumptions based on market dynamics outside the control of the Company
- As CSA continues to conduct exploration drilling, changes in the local interpretations of mineralization geometry may occur based on the results of such drilling. Changes could include the presence of mineralization extensions, off-shoots, faults, dikes and other structures as well as changes to the continuity of shear geology, the continuity of mineralized zones and grade continuity assumptions
- Changes to metallurgical recovery assumptions which may be driven by changes in mineralogy or processing plant operation
- Changes to the grade threshold values applied to the lode definitions
- Changes to environmental, permitting and approvals for the ongoing operation of CSA.

11.16 Qualified Person's Opinion

The QP is of the opinion that the Mineral Resource estimate is well-constrained by three-dimensional wireframes representing geologically realistic volumes of mineralisation. Exploratory data analysis conducted on assays and composites shows that the wireframes represent suitable domains for Mineral Resource estimation. Grade estimation has been performed using an interpolation plan designed to minimise bias in the estimated grade models.

Mineral Resources are constrained and reported using economic and technical criteria (geologically and grade defined thresholds and close proximity to mine infrastructure) such that the Mineral Resource has a reasonable prospect of economic extraction.

Mike Job of Cube Consulting Pty Ltd. is the Qualified Person responsible for the estimation of the Mineral Resources as of 31 December 2022. The QP believes that this Mineral Resource estimate for CSA mine is an accurate estimation of the in-situ resource based on the data available, has been prepared using industry standard accepted practice and conforms to the requirements of Subpart 229.1300 of Regulation S-K. The QP also believes that the available data and the resource model are sufficient and appropriate for mine design and planning.

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12 MINERAL RESERVE ESTIMATE

This section contains forward-looking information related to tonnage and grade for the project. The material factors that could cause actual results to differ materially from the conclusions, estimates, designs, forecasts or projections in the forward-looking information include any significant differences from one or more of the material factors or assumptions that are set forth in this sub-section including actual in-situ characteristics that are different from the samples collected and tested to date, equipment and operational performance that yield different results from current test work results.

12.1 Introduction

CMPL estimates Mineral Reserves annually in December using the updated Mineral Resource estimate and Void Model to allow for mining depletion.

The mining method used at CSA is a combination of sublevel long-hole open stoping and Avoca stoping (for narrow mineralized lenses) with either paste or rock fill (discussed in more detail in Section 11). CSA uses Deswik® software (stope design and scheduling) for mine planning. The Mineral Reserve is the economically mineable part of the Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Feasibility level, or greater, as appropriate, to facilitate application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified and considered economically viable.

The principal parameters used in the Mineral Reserve Estimate for stope design and economic evaluation of the are as follows:

- the stope cut-off grade used for the 2022 and 2021 Mineral Reserve was 2.2% Cu (2.1% Cu in 2020) based on the site cost per tonne of ore mined (operating costs from stoping and development to mine gate including relevant sustaining capital costs) and the net smelter return per tonne of copper metal produced calculated using applicable commodity price assumptions and calculated revenue factors
- dilution and recovery factors include allowance for overbreak dilution, fill dilution, and ore losses; the factors are applied are based on historical stope performance; waste dilution is assumed to have zero copper and silver grade
- for stopes classified as Proved (>95% Measured resource), any Indicated or Inferred material included in the stopes is treated as waste at zero copper and silver grade; for stopes classified as Probable (>95% Measured and Indicated resource), any Inferred material included in the stopes is treated as waste
- development, which must be mined to access the stopes, is treated as ore if >1% Cu
- economic evaluation of each mining area or level requires that all stopes on that level or area must cover the access costs (ie. the operating and capital costs for vertical and lateral development); if the mining area or level does not have a positive operating margin, all the stopes and development are assigned 'Not Economic' in the Deswik scheduler.

BDA considers that the CSA reserve estimation procedures are generally appropriate. Estimating mine dilution at zero grade is a conservative assumption, given that much of the diluting material will carry some copper mineralisation.

12.2 Development of the Mining Case

Mineral Reserve estimation at CSA is carried out using computer generated geological block models. All Mineral Reserve design work and tonnes and grade evaluations has been completed using Deswik's planning and stope optimiser software (Deswik.CAD and Deswik.SO respectively). Deswik.SO (SO) allows the user to define numerous stoping properties including:

- Stope shapes and orientation
- Cut-off grades
- Stope dimensions and pillar sizes
- Dilution
- Mining limits and waste ratios.

12.3 Design Guidelines

CSA utilises a combination of mining methods including transverse longhole open stoping, longitudinal open stoping, Avoca stoping and blind uphole stoping. The predominant mining sequence for the transverse stoping areas is towards the centre access. Cemented paste fill (CPF) is employed in these areas.

The longitudinal mining areas can be mined either underhand or overhand, depending on existing (and planned) development access, backfill methodology and economics. In narrower areas of the mine, the mining sequence is overhand, utilising waste rock fill (WRF). When economically justified these areas are fully extracted with no pillars. For the remaining overhand areas, crown, sill and rib pillars are included in the design and are not planned for extraction.

The Mineral Reserve has been estimated assuming these mining methods will continue to be applied in the future.

12.3.1 General Design Guidelines - QTSN

The historical level interval for QTSN was 30m vertically (floor to floor). Two levels, the 8540 and 8500, were developed at 40m, whilst all levels below 8500 have a reduced interval of 35m. Floor strings were created in Deswik to ensure the correct elevations were followed during the stope creation process.

Stope strike lengths were limited to 20m as dictated by the geotechnical recommendations. Stope widths ranged from 5m to 25m, depending on the width of the mineralized lens, or lenses being mined in the stope. A minimum pillar of 5m between parallel stopes has been assumed.

Whilst the above geometries have been applied at CSA with good results, continued suitability will require monitoring to ensure satisfactory stope performance. The stope design process does not consider local structures that may adversely affect stope performance. This process is completed during the detailed stope design prior to excavation.

12.3.2 General Design Guidelines – QTSC, East, West and QTSS

The QTSC, East, West and QTSS systems are generally narrower, singular lenses with little opportunity for transverse stoping. Longitudinal and Avoca stoping have been successfully used in these areas.

Deswik.SO stope dimensions include a 15m strike length with a minimum mining width of 5m. Level intervals are generally 30m but vary based on existing development. The level interval below 8721 level in QTSC has been reduced to 25m to enable blind uphole stoping to be undertaken as the primary mining method.

Stopes in the QTSS and West are planned to be filled with rock fill. Paste fill reticulation is currently underway for both the East and QTSC, although a combination of paste fill and rockfill is expected. QTSC Lower will be paste fill, with paste delivered to the stope via inclined boreholes delivered from the production level.

A major change to the mine design for QTSC has been adjustments to the stoping sequence, level interval, level access and backfill method. The level accesses have been moved from the existing central access to a northern access with the stoping front changing to a south to north front. The orebody has been split into two zones, QTSC Lower and QTSC Upper. QTSC Lower will consist of 25m level intervals utilising blind uphole stoping with cemented paste fill. QTSC Upper extraction will be based on 30m level intervals utilising a mix of uphole and downhole stoping, with a mix of paste fill and rockfill.

Similar to the redesign of QTSC, development of East, West and QTSS mining zones will be configured for longitudinal retreat, with end access, where necessary.

Where required, rib and island pillars have been included in the design to provide both localised support as well as to reduce dilution associated with rockfill. Rib pillar dimension are 5m along strike whilst island pillars are assumed to be 50% of rib pillars. All four zones (QTSC, East, West and QTSS) are predominantly based on a bottom-up (overhand) mining method, although as mentioned, in some cases like the QTSC Lower section will be top-down (underhand)

Crown pillars have also been included where mining under existing stopes with rock backfill or where the backfill type is unknown. In these instances, a 10m high crown pillar has been assumed.

12.3.3 Depletion Guidelines

During the stope design work, stope As-builts were used to ensure that previously mined material was not included in the stope shape.

Stopes forecasted to be mined prior to the end of the reporting deadline (31 December 2022) for which As-built data did not exist, were depleted from the resource models, and were therefore excluded from the reportable 2022 Mineral Reserve.

Stopes have also been depleted against the development design to eliminate the potential for double accounting ore.

12.4 Modifying Factors

Modifying factors have been based on the historical stoping performance as captured in the CSA reconciliation database. A production reconciliation process is maintained at CSA, the results of which has been used to analyse stoping performance and to determine usable modifying factors for the 2022 Mineral Reserve.

The key modifying factors included in the estimation of the 2022 Mineral Reserve are outlined here and summarized in Table 12.1

- Dilution – includes overbreak waste or low-grade mineralization from the hangingwall, footwall and crown. Overbreak from waste backfill has also been included. Dilution has been assumed at zero grade.
- Ore Loss – includes underbreak from all walls, floor and the crown as well as loss due to operational reasons (ie: unable to bog, covered over by rilling backfill, etc).
- An adjustment factor for both Dilution and Ore Loss was also included to account for high level design modifications. An adjustment factor has been included to convert the transverse stopes cuboidal shape into a stope shape with shoulders.

Table 12.1

CSA – 31 December 2022 Mineral Reserve Modifying Factors

Zone	Mining Method	Lens	Dilution	Underbreak	Adjustment	Ore Loss
QTSN	TRANSVERSE	JS and SN	13.7%	0.2%	4.4%	4.6%
QTSN	TRANSVERSE	K and F	17.4%	2.3%	4.4%	6.7%
QTSN	TRANSVERSE	O and S	15.5%	0.0%	4.4%	4.4%
QTSN	TRANSVERSE	Other	21.6%	1.6%	4.4%	6.0%
QTSN	LONGITUDINAL	All	17.7%	0.5%	4.0%	4.5%
QTSN	AVOCA	All	21.4%	10.8%		10.8%
QTSC	LONGITUDINAL	All	28.7%	4.5%		4.5%
QTSC	AVOCA	All	21.4%	10.8%		10.8%
EAST	LONGITUDINAL	All	28.7%	4.5%		4.5%
EAST	AVOCA	All	21.4%	10.8%		10.8%
WEST	LONGITUDINAL	All	28.7%	4.5%		4.5%
WEST	AVOCA	All	21.4%	10.8%		10.8%
QTSS	LONGITUDINAL	All	28.7%	4.5%		4.5%
QTSS	AVOCA	All	21.4%	10.8%		10.8%
ALL	DEVELOPMENT	All	0.0%	0.0%		0.0%

Notes

- Adjustment factors of 4.4% included as ore loss to account for transverse stope shoulders that remain insitu;
- Adjustment factor applied to QTSN Longitudinal stoping to allow for additional underbreak;
- Development overbreak and dilution have been applied to the design solids;

12.5 Block Model

Separate block models were generated in Datamine for each of the systems. Models are constrained by S1 regional shear interpretations with all lenses and interpreted S1 structures filled with cells. Parent cell sizes reflect the KNA results. Model parameters are presented in Table 12.2.

Table 12.2

Block Model Dimensions by Ore System

Model	Dimension	Origin	Parent Block Size (m)	Sub-Block Size (m)	Number of Parent Blocks
QTS North	Easting	5,630	5	1.25	117
	Northing	3,500	5	2.50	171
	Elevation	8,000	10	2.50	140
QTS South	Easting	6,100	5	1.25	52
	Northing	2,800	5	2.50	120
	Elevation	8,750	10	2.50	85
Eastern	Easting	5,800	5	1.25	70
	Northing	3,500	5	2.50	103
	Elevation	8,550	10	2.50	100
Western	Easting	5,630	5	1.25	38
	Northing	3,500	5	2.50	115
	Elevation	8,450	10	2.50	112
QTS Central	Easting	5,800	5	1.25	120
	Northing	3,200	5	2.50	140
	Elevation	8,000	10	2.50	125

12.6 Cut-off Grade and Input Assumptions

The cut-off grade used was based on the economic evaluation of historical data, operating and capital costs assumptions and global Company macroeconomics, including revenue factors and price assumptions. The cut-off grade used is the grade above which the Mineral Reserves can be mined profitably.

12.6.1 Revenue Factors and Price Assumptions

Price assumptions used in the Mineral Reserve estimate are applied as at 31 December 2022 and summarised as follows:

- Copper Price - US\$7,400/t (US\$3.18/lb) - The Company elected to take a conservative approach to the estimation of the 2022 Mineral Reserve and has applied a 9% discount to the long-term, real, Broker Consensus copper price outlined in Section 16.3.
- Silver Price – US\$21.7/toz - The Company elected to adopt the long-term, real, Broker Consensus silver price outlined in Section 16.3.
- A\$/US\$ Exchange Rate – 0.75 - The Company elected to take a conservative approach to the estimation of the 2022 Mineral Reserve and has applied a 4% discount to the long-term, real, Broker Consensus exchange rate outlined in Section 16.3.

12.6.2 Input Parameters

The cost inputs for the December 2022 Mineral Reserve are based on the CSA's internal budgeting process. With its long operating history, CSA has a thorough understanding of the mining, processing, G&A and other costs associated with the operation.

Key input parameters used in the calculation of cut-off grade and estimation of the Mineral Reserve are summarized in Table 12.3.

Table 12.3

Summary of Mineral Reserve Input Parameters

Parameter	Unit	Value
Copper Price	US\$/t Cu	7,400
Copper Revenue Factor	%	89
Copper Recovery	%	97.5
Silver Price	US\$/toz	21.7
Silver Revenue Factor	%	100
Silver Recovery	%	80
Mining Cost (excl. Capex)	A\$/t milled	98
Processing Cost	A\$/t milled	20
G&A Costs	A\$/t milled	19
Discount rate	%	8
Inflation rate	%	2.1-2.5

**Revenue factor accounts for all costs from mine gate (incl. freight, realization charges and offtake costs)*

12.6.3 Metallurgical Recoveries

The metallurgical performance of the CSA plant is well understood and has generally remained very stable each year for the past 10 years, a selection of which is shown in Table 5.1. Copper recovery to concentrates from 2017 to 2021 averaged 98%, though this dropped to 92% in 2021 before returning to 98% in 2022. Recovery of silver, the only by-product, averages about 80%. Concentrate Cu grades averaged 26.1% Cu and approximately 80g/t Ag.

Ore has been processed at an onsite conventional flotation concentrator since circa 1965. This produces a concentrate which is sent off-site for smelting and refining to produce copper cathode.

The metallurgical process employed is based on well-tested technology.

Copper processing recoveries at the CSA concentrator are expected to average 97.5% over the life of the reserve. Silver recoveries are forecast at 80% over the same period.

12.6.4 Stopping Cut-off Grade

The 2022 Mineral Reserve has been completed using Deswik.SO to derive the stopes using a design cut-off grade of 2.5% Cu (pre modifying factors). The design cut-off grade of 2.5% Cu has been partially driven by the geological wireframing process which has used a similar value.

Post modifying factors, a break-even cut-off grade of 2.2% Cu has been used to determine if stopes are economic and therefore included in the Mineral Reserve.

Silver revenue is excluded from the cut-off grade calculation. In general, the Ag revenue contributes approximately 2%-4% of the revenue each year so its exclusion does not have a material impact on the cut-off grade. If it were included, then the cut-off grade would be slightly lower but technically would then be a Cu equivalent cut-off. Mine planning practices at CSA are not set-up to operate with a Cu equivalent grade and due to the immaterial impact of the Ag revenue it was decided to keep the processes simple and exclude the Ag revenue. The exclusion of the Ag revenue does provide a small margin on the break-even cut-off grade to allow for inaccuracies in calculation inputs.

12.6.5 Development Cut-off Grade

Both development designs and stope designs were evaluated against the various resource models. The calculated economic cut-off grade for development was estimated at 0.6% Cu although a minimum value of 1.0% Cu has been used as it is deemed to be the minimum grade that a geologist can reliably identify the ore visually.

12.7 Mineral Reserve Estimate

The Mineral Reserve estimate for the CSA Mine is reported here in accordance with the SEC S-K 1300 regulations and are considered to be the economically mineable component of CSA's Measure and Indicated Resources. The reported Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. All figures are rounded to reflect the relative accuracy of the estimates and totals may not add correctly. CSA Mineral Reserves are summarized in Table 12.1, on a 100% ownership basis, and have an effective date of December 31, 2022.

Table 12.1
Copper and Silver Mineral Reserves as of 31 December 2022, Based on a Copper Price of \$7,400/t

System	Reserve Category	Tonnes Mt	Cu %	Cu Metal Kt	Ag g/t	Ag Metal Mtoz
All Systems	Proven	4.8	4.3	208.8	17.8	2.8
	Probable	3.1	3.5	105.3	13.5	1.3
	Total	7.9	4.0	314.1	16.1	4.1

Notes:

- Mineral Reserves are reported as of 31 December 2022 and are reported using the definitions in Item 1300 of Regulation S-K (17 CFR Part 229) (SK1300);
- The Qualified Person for the estimate is Jan Coetzee, an officer of the Registrant's Australian subsidiary;
- Price assumptions used in the estimation include US\$7,400/tonne of copper and US\$21.70/ounce of silver; the copper price is an approximate 9% discount to Consensus copper pricing as at Feb 1, 2023;
- Mineral Reserves reported as dry, diluted, in-situ tonnes using a Stope breakeven cut-off grade of 2.2% Cu and a Development breakeven cut-off grade of 1.0% Cu;
- Costs assumptions during cut-off grade calculation are A\$98/t ore mined, A\$20/t ore milled and A\$19/t G&A;
- Metallurgical recovery assumptions use in the estimation were 97.5% copper recovery and 80% silver recovery;
- Figures are subject to rounding.

12.8 Factors That May Affect the Mineral Reserve Estimate

In the QP's opinion, the following factors may affect the Mineral Reserve estimates include:

Metal prices: the Mineral Reserve estimates are most sensitive to copper prices (less so to silver prices).

Metallurgical recovery: changes in metallurgical recovery for copper (less so for silver) could have an impact on the Mineral Reserve estimates.

Changes in Operating costs: operating costs that are higher or lower than those assumed in the estimation process could affect the Mineral Reserve estimates. Inflationary pressures within Australia could increase operating costs over the life of the Project. Conversely, any reduction in operating costs could lead to increased Mineral Reserve economic conditions of mineral reserve estimates.

Increased Dilution and Ore Loss: Dilution and ore loss form key components of the modifying factors used in the determination of Mineral Reserves. Any unforeseen geotechnical issues could lead to additional dilution, difficulty accessing portions of the orebody, or sterilization of ore. CSA conducts continuous geotechnical drilling and has extensive knowledge of the geotechnical conditions of the mine, both of which are taken into consideration during mine design in order to effectively mitigate geotechnical risks. Preliminary designed underground stopes have been evaluated for stability in several geotechnical studies and are regularly evaluated by the engineering group at the mine.

There are opportunities to improve on the reconciliation database to ensure the process is consistent and repeatable, leading to improved modifying factors. Changes to the mine design and stoping front for QTSC, coupled with the current implementation of paste fill, could see reductions in both dilution and ore loss factors. Dilution factors could also improve in the West area when implementing localised rib and island pillars.

Permitting and approvals: any inability to maintain, renew, or obtain environmental and other regulatory permits, to retain mineral rights, extend tailings storage capacity or continue safe mining operations could have a negative influence on Mineral Reserve estimates.

With over 55 years of operating history and a detailed understanding of these factors, the QP considers that essential controls are in place for CSA to effectively manage these factors, minimising the risk of significant impact on the Mineral Reserve estimate.

As per requirements under Subpart 229.1300 of Regulation S-K, the CSA estimated Mineral Reserve is limited to Measured and Indicated resource material only, that also satisfies the Mineral Reserve economic criteria and modifying factors. However, due to the steeply dipping nature of the mineralised lenses, detailed drilling (sufficient to classify the material as a Measured or Indicated resource) is limited in depth extent to 100-200m below the nearest suitable underground development horizon. Deeper drilling is relatively sparse, but nevertheless indicates continuity of the mineralised lenses in depth. As the drill density at depth is only sufficient to classify this material as Inferred, at best, it cannot be included in the Mineral Reserves.

In the QP's opinion, the estimated Mineral Reserve thus represents a comparatively conservative guide to the future mining potential. To provide a more realistic guide to the overall Life of Mine (LOM) potential, CSA annually completes a life of mine planning process which includes Inferred resources and projections of lenses down dip where, as mentioned, the drilling is relatively sparse, but nevertheless indicates continuity of the mineralised lenses in depth and provides geological evidence that the mineralised lenses continue; and further drilling will test options and guide the placement of required mining infrastructure.

12.9 Qualified Person's Opinion

The Qualified Person considers that the Mineral Reserve estimate for CSA mine and presented in this report is appropriate estimation of the diluted, in-situ and economically viable Mineral Reserve based on the latest Measured and Indicated resource data available, and has been prepared using logical and industry standard accepted practices conforming to the requirements of Regulation S-K. The QP is of the opinion that the Resource block models used to determine the appropriate Reserve mine design provide a reasonable guide to the in situ mineralisation, and that the historically-based modifying factors are consistent with actual mining and processing experience at CSA. The LOM forecasts based on the Mineral Reserves are considered to provide a conservative estimate of the likely life of mine, given the historical experience of regular reserve replacement and the known down-dip extensions of the mineralised lodes.

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13 MINING METHODS

13.1 Introduction

The CSA is an established underground mine which has been operating for the past 55 years using similar mining and processing methods as that which are used in the operation today. CSA extracts approximately 1.1-1.3Mtpa of copper ore each year from five en-echelon steeply dipping orebodies, with current mining focused on the QTSN, QTSC and Western systems, with QTSN supplying the bulk of the ore and representing 78% of current Mineral Reserves. Silver mineralisation accompanies the copper and contributes approximately 2% to revenue.

Mining methods employed at the CSA mine comprise conventional long-hole open stoping with cemented paste backfill in QTSN, and modified Avoca stoping in the Western and QTSC deposits; the Avoca method is a variation of sub-level stoping with progressive waste rock fill (and paste fill in QTSC).

Figure 14 shows a schematic diagram of a typical long-hole open stope that has been partially extracted before filling together with a general arrangement of long-hole open stopes on three levels that are in the process of being extracted (brown coloured stopes) and then backfilled (white coloured stopes) with cemented paste fill supplied from a surface borehole. Long-hole open stoping has been used extensively over the life of the CSA mine, and is mechanised, cost-effective, and well suited to the geometry and operating conditions in QTSN.

In QTSN, sub-level intervals are 30m apart above 8580mRL, approximately 1,620m below surface ("mbs"). Below 8580mRL, the sub-level interval was increased to 40m, leading to some negative impacts with increased ground failures and higher levels of overbreak and stope dilution; sub-level intervals have more recently been reduced to 35m. Stope dimensions are typically 20m long by 25m wide. Mining is non-entry and ground support is employed to control dilution and overbreak prior to the placement of backfill and to support extraction development.

Figure 15 shows a schematic cross section through a modified Avoca stoping sequence. This method is used in narrower orebodies such as QTS Central and relies on backfilling with waste rock to provide support as the ore is progressively blasted and removed from the stope. While the Avoca method has proven an effective mining method at CSA, benefiting from having a degree of passive wall support from the waste rock (long-hole open stopes have to be completely extracted before paste filling can commence), the Avoca stopes can suffer from higher ore losses, increased waste dilution, and backfilled waste rehandling.

The level interval in both the QTSC is a combination of 25m and 30m intervals, whilst the Western and Eastern systems both use 30m intervals. Orebody widths for the three systems are between 6-10m. In the modified Avoca method, mining begins in the central area of the ore zone and progresses towards both ends of the ore drives. The stopes are drilled with either upholes or downholes. A slot is established to create the initial void for subsequent stope firing. The rings are then fired in slices to a stope length as allowed by the stability assessment and then bogged clean. The empty stope is then filled with waste rock from the upper sub-level. The filled stope is then mucked out to a natural angle of repose and subsequent rings are blasted to a free face.

The mine design for QTSC was changed recently to adjust the stoping sequence, level interval, level access and backfill method. The level accesses have been moved from the existing central access to a northern access with the stoping front changing to a south to north front. The orebody has been split into two zones, QTSC Lower and QTSC Upper. QTSC Lower will consist of 25m level intervals utilising blind uphole stoping with cemented pastefill. QTSC Upper will be 30m level intervals utilising a mix of uphole and downhole stoping, with a mix of pastefill and rockfill.

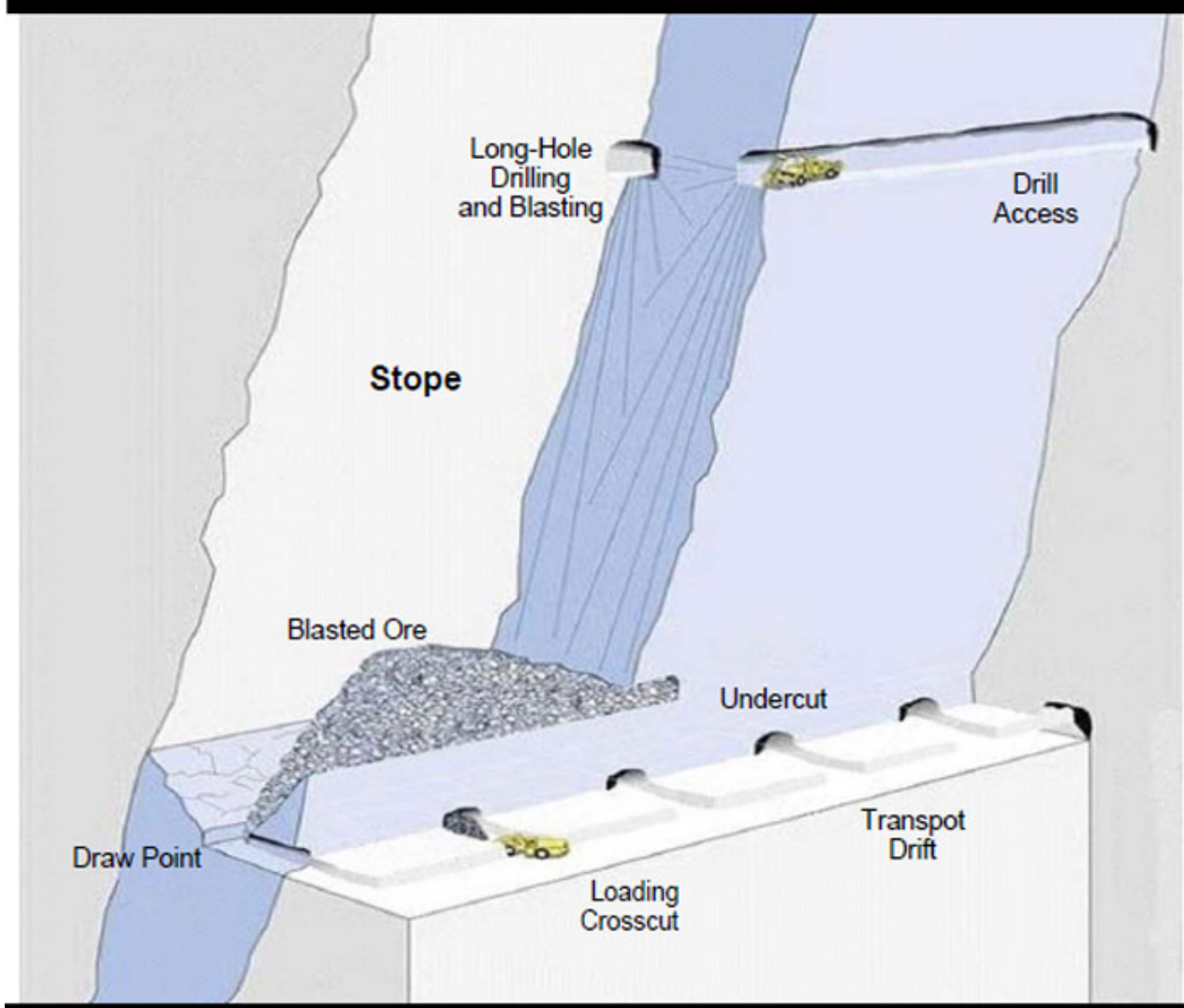
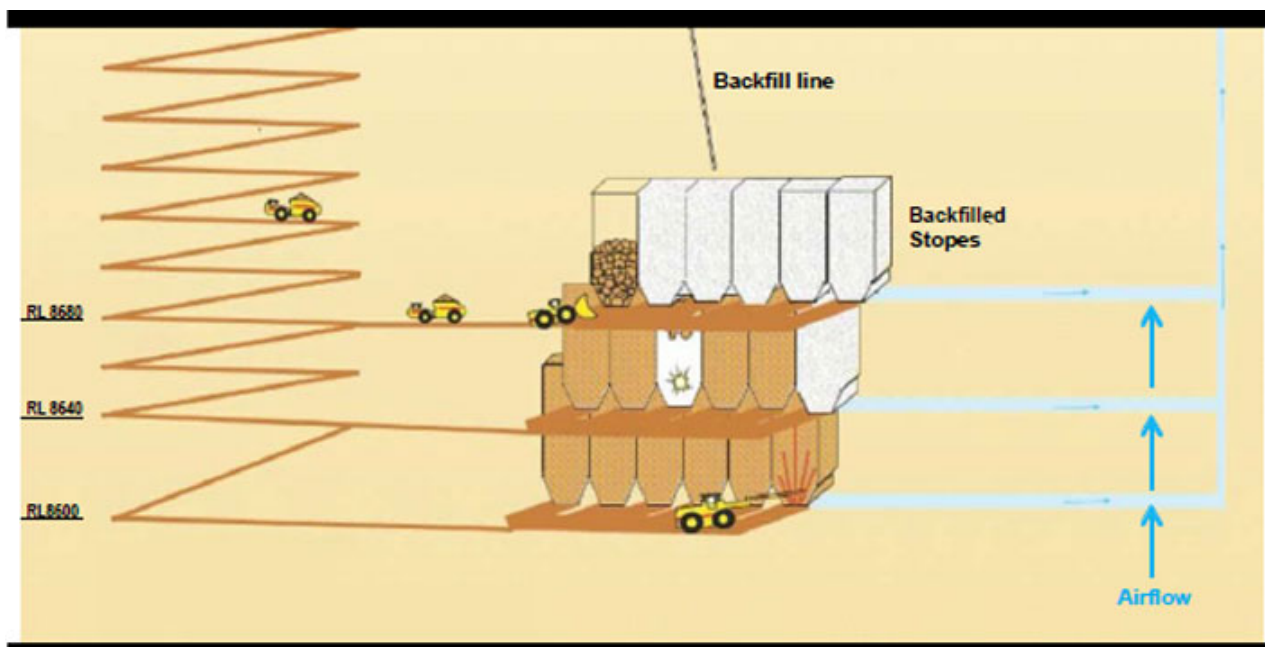
Stopes in the QTSS and WEST are planned to be filled with rock fill. Pastefill reticulation is currently underway for both the EAST and QTSC, although a combination of pastefill and rockfill is expected. QTSC Lower will be pastefill, with paste delivered to the stope via inclined boreholes delivered from the production level.

Diesel load-haul-dump ("LHD") units load broken ore from the stopes into diesel-operated trucks. The ore is hauled from the stopes for up to 7-8km to the underground crushers located at the base of the two hoisting shafts. Truck haulage distances to the underground crushers will increase as stoping gets deeper, adding to truck cycle times, requiring more trucks, and adding to the ventilation requirements; all of which is considered during the mine planning processes. The current mobile fleet includes a mix of 50t and 60t payload haul trucks which are in the process of being replaced with new 63t payload trucks. Improving average payloads across the operation, along with improved utilisation and cycle-time could assist in partially offsetting the increased haul distances at depth.

From the underground crusher, ore is hoisted to surface in the two hoisting shafts:

- No. 1 shaft hoists from 10 level (895m underground) to surface, has a capacity of 700kt per annum (“ktpa”) and is used for ore and waste hoisting only; No. 1 shaft has recently been upgraded with a new headframe and double-drum winder
- No. 2 shaft hoists from 9 level (810m underground) to surface, has a capacity of 1.6Mtpa and is used for both men and material hoisting and ore hoisting; No. 2 shaft has recently been upgraded with new Koepe winder and control system.

The Reserve LOM extends a further 4 levels (4 x 35m) from the current deepest levels of stoping. The recent upgrades in ventilation and cooling along with the new fleet will be sufficient to mine the mine plan presented in this report.



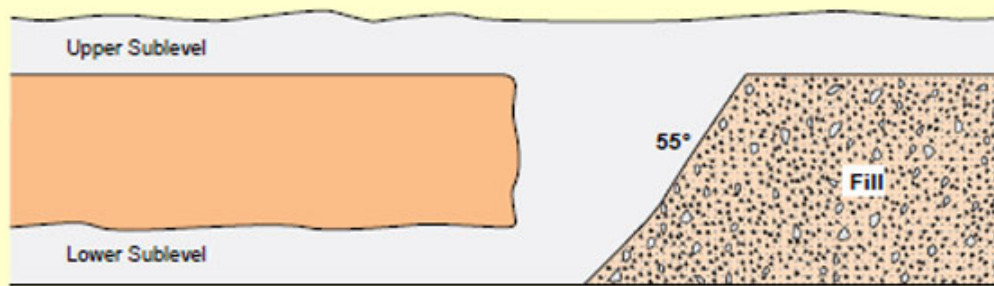
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CSA Mine

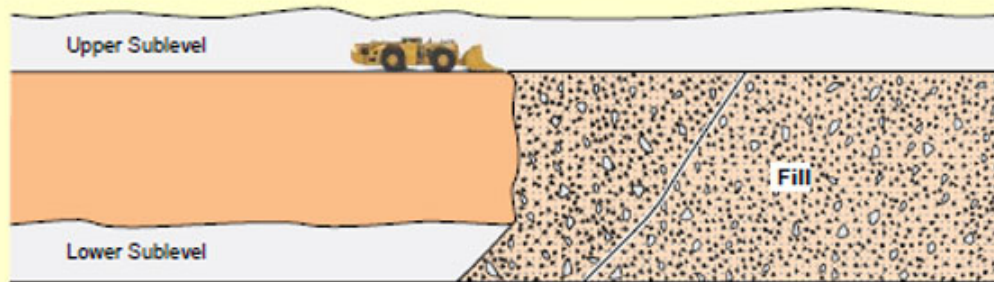
Figure 14
BDA - 0230-02-Feb. 2023

SCHEMATIC - LONG HOLE OPEN STOPPING MINING METHOD

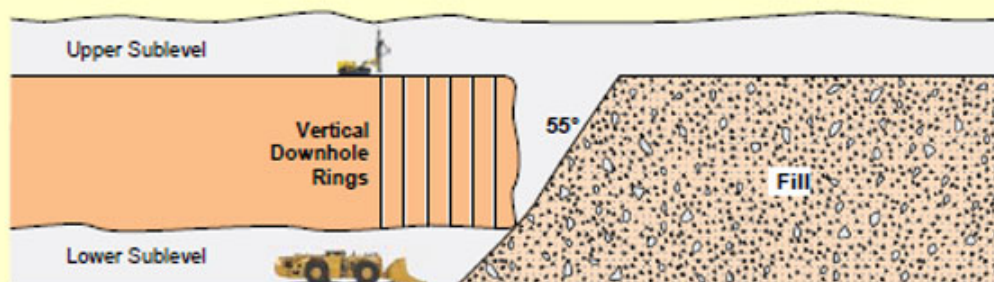
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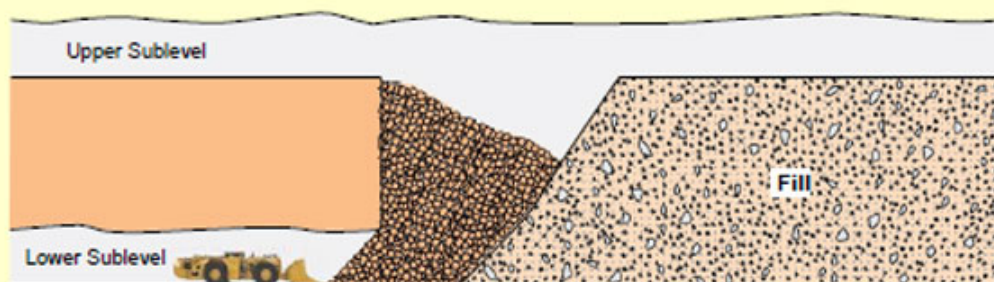
Stage 1: Stope Mucked Out - Ready for Filling



Stage 2: Void Tight Filled from Same End



Stage 3: Fill Mucked Out to Angle of Repose



Stage 4: Rings Blasted to Free Face

13.2 Blasting

All stope blasting is conducted with emulsion or Ammonia Nitrate/Fuel Oil (“ANFO”) explosives, in 102 mm blast holes. For the main ore lenses, a raise bore slot is developed to create an opening from a crosscut drive at the top of a stope, down to a strike drive on the extraction (bottom) level. The slot is opened in two shots. The remainder of the stope is then drilled and fired as a number of rings that are fired into the void created by the slot. Smaller lenses would generally be extracted in a similar manner, except that a longhole rise pattern of drill holes may be used to create the slot rather than a raise bore.

13.3 Geotechnical Parameters

13.4 Overview

Rock mass conditions are generally good in the upper areas of the mine, however mining at depth has been accompanied by a notable increase in stress response. Conditions associated with active production areas have historically been highly variable. The variable response of the rock mass to mining is a function of lithology and rock mass conditions, increasing depth and associated in-situ stress, and local extraction sequencing. The host rock mass at CSA comprises dominantly steeply dipping, thinly bedded siltstone. The bedding strikes north- northwest and dips west at 80°. The host rock mass also has a northerly trending axial planar cleavage that dips steeply east (80°). Within the siltstone unit, bedding and cleavage are the dominant structures with the intensity varying throughout the mine. In addition to the foliation, certain rock types have been altered to talc which has very low strength, cohesion and friction properties, and is therefore susceptible to deformation when exposed.

Stress-driven shear and buckling damage leading to closure of underground excavations is common at depth, to the extent that single-pass intensive support and reinforcement is not always adequate to maintain serviceability over modest service-life periods. Progressive yielding of the highly bedded, strongly anisotropic rock mass has proven problematic in some instances, exacerbated by locally poor conditions associated with weak alteration zones, poor development positioning or geometries, and local extraction sequences.

The mineralisation is typically associated with a shear zone which can also impact on the footwall drive. High deformation and buckling ground conditions are experienced in the footwall shear zone, and in high stress locations in the ore-zone where drives are aligned with foliation and are impacted by the stoping stress abutment.

To mitigate these issues where possible, the development is preferably mined perpendicular to the foliation planes. Unmanageable conditions can be generated by high stress concentrations created by retreating to central accesses, whether these are crown pillars or central rib pillars and, therefore, such conditions are avoided during the mine design and planning process.

13.5 Rock Strength and In-Situ Stress

Geotechnical core logging of RQD and Q Prime parameters is undertaken for all drilling and has been collected for over 20 years; this together with the detailed geology mapping completed on all development levels forms an excellent basis for assessing the ground conditions at the mine. Laboratory testing of rock strength indicates average uniaxial compressive strength of the unmineralised siltstone of 122 mega pascals (“MPa”) with an average density of 2.8t per cubic metre (“t/m³”) and for the mineralised siltstone, 156MPa with an average density of 3.48t/m³.

Stress measurements have been undertaken at the mine using several different methods. The results are reasonably consistent. The three principal horizontal stress orientations are - Sigma 1: 278° (approximately east-west), Sigma 2: 185° (approximately north-south) and Sigma 3: (approximately southwest-northeast).

Currently the deepest mining level is the 8465mRL (1,805mbs), the decline advance is currently at 8395mRL (1,875mbs) and the current mine design will complete mining at the 8290mRL (1,980mbs). Due to the number and consistency of the stress measurements, there is reasonable confidence in the results, which indicate that at the current deepest mining level at 1,805mbs, the in-situ maximum principal stress is 61MPa. A nominal increase is expected at the final Reserve mining depth of 1,980mbs. Once the mine was to reach 8205mRL (2,200mbs), the principal stresses experienced are expected to reach approximately 72MPa. Additional stress measurements are required to confirm the stress magnitudes and orientation at and beyond this depth though this is beyond the current Reserve LOM.

RQD block model plots of the ground conditions for the current 8465 mining level down to 8290mRL (1,980mbs) in QTSN demonstrate that there is no significant change to the ground conditions expected as the mine progresses with depth.

13.6 Mining Implications

QTSN contains 78% of the current Mineral Reserves and accounts for 71% of the planned production, with lesser contributions from other areas, QTSC, QTSS and Western. QTSN is exploited using long-hole open stope mining, mined Top Down (where mining advances from the top of the area to the bottom) and backfilled with cemented paste fill (CPF). QTSC and Western lodes are mined using the Avoca mining method with loose rock fill ("LRF") used to backfill the stopes although QTSC is being converted to long-hole open stope mining, mined Top Down and Bottom Up (where mining advances from the bottom of the area to the top), and backfilled with cemented paste fill (CPF) mining method.

In plan, QTSN consists of several thicker central lenses which taper to a single economic ore zone at the northern and southern extremities. The central section is amenable to transverse mining, allowing crosscut development perpendicular to the foliation. The extremities are mined using longitudinal stoping requiring strike development; narrower lenses are mined using an Avoca method with LRF used as backfill and have traditionally been mined early in the sequence before the transverse central area mining is complete. This layout minimizes development, but results in high stress closure pillars being formed. CMPL is now changing this sequencing to mine the central stopes first and progress outwards (Figure 3).

Below 8580mRL the sublevel spacing was increased from 30m to 40m in QTSN with the intent of reducing the number of sublevels required and moving the sublevels out of the immediate high stress abutment below previously mined areas. However significant overbreak occurred in these stopes and future sublevel spacings have been reduced to 35m to prevent a repeat of these failures.

As mining gets deeper, and more of the orebody is extracted there will be an increase in the in-situ stress and the abutment stresses will increase. The underhand stoping method utilized in QTSN is considered appropriate to manage these conditions, but the stoping sequence may need to be modified.

The Avoca mining method in QTSC was previously mined as a center out mining method progressing both upwards and downwards from the middle of the ore zone. This was a change from the earlier retreat to a central access, aimed at limiting the previous occurrences of unstable ground conditions and roof and wall failures. The recent change in QTSC from Centre Out (where mining area is accessed from the centre of the level to be mined) to End Access (where the mining area is accessed from one end of the level to be mined) further improved stability during mining and the addition of paste fill will reduce dilution associated with rock fill and overbreak.

13.7 Production Sequencing

A 2017 geotechnical report from Itasca Australia Pty Ltd ("Itasca") suggested that the CSA ground conditions can best be managed by top-down mining under CPF, adopting a center out retreat with a V-shaped chevron retreat between levels and the creation of a de-stress slot along the hangingwall to protect the footwall development and stopes. Reduction in stope dimensions (height) would likely improve operating conditions but would also add to the development requirements. This was recommended instead of retreating to a central pillar and advancing upwards to a crown pillar, as was the practice at that time. For transverse stoping, the change to centre-out sequencing would be facilitated by the multiple cross-cut accesses. However, centre-out benching requires additional footwall and crosscut development to provide access to the northern and southern ends of the orebodies, adding to development cost and time.

In July 2022, the Glencore Geotechnical Review Board ("GRB"), a panel of internal and external geotechnical experts including recognised independent specialists, Dr Iain Thin (Director of Applied Geomechanics Consulting) and Dr Charles Lilley (Director of KSCA Geomechanics), conducted a detailed review of CSA geotechnical conditions and practices. Following their review, the decision was made to accelerate transition of QTSC to end-access (instead of centre-out) and paste fill operations, for improved stability and reduced dilution.

Figure 3 shows that a top-down centre-out sequence has been adopted for QTSN, and QTSC the stoping is adopting an end access, retreat process, mining both upwards and downwards as per recommendations from the GRB.

BDA considers the geotechnical risk to be medium though with risk-based mine design and sequencing, the risk should be manageable. With the adoption of recommendations from Itasca and the GRB, further improved sequencing at QTSC, transition to paste fill in QTSC and Eastern, along with the acceleration of development into Eastern; BDA believes the Reserve LOM to be readily achievable and well within the CSA's standard operating practices.

13.7.1 Ground Support

The ore drives are accessed from a footwall drive that is angled to cut across the strike of the ore body to minimise the effects of squeezing, however, extensive ground support and reinforcement is still required. Both the decline and the footwall drives are supported with mesh and fibre-reinforced shotcrete, together with rock bolts and 6- 8m-long twin-strand cable bolts. Cross cut drives mined perpendicular to the foliation are supported with weld mesh and 2.4m rock bolts.

Whilst the cross cuts are generally stable, several sections of decline and the footwall drive show poor ground conditions despite the ground support installed. Drives that are aligned with the foliation in areas of high fracture frequency are more likely to deform and are susceptible to failure. Geotechnical modelling will be important to identify areas where unfavorable conditions are likely to occur, to allow appropriate mitigation methods (drive orientation and appropriate ground support) to be adopted.

AMC Consultants Pty Ltd (“AMC”) is currently engaged in a study to rationalise and optimise the ground support installations.

13.8 Seismicity

The mine has a seismic monitoring system installed for measuring the location and magnitude of seismic events. Despite the mining depths and high stresses, damaging seismicity has not been reported. This is most likely due to the absence of stiff rock units or stiff structures which can store the strain energy necessary for damaging seismic events, with the strain being taken up by movement on foliation planes.

13.9 Backfill

The principal mining method used of long-hole open stoping requires cemented backfill to fill the stopes post mining and prior to extracting adjacent stopes. Strength requirements are generally achieved by addition of up to 3% Portland cement by weight, giving a fill strength of 0.4Mpa; selected areas such as crown pillar extractions may require stronger cemented fill of around 1MPa, achieved with cement addition rates of about 6%. Isolated stopes are filled with un-cemented bulk fill only, using development waste and/or un-cemented paste fill.

In certain locations cemented rock fill (“CRF”) is used; CRF is a blend of development waste rock, Portland cement, and water, which is mixed in a dedicated mixing bay mined on each level where required. The CRF is placed into the stope before filling with uncemented rock fill.

With the introduction of paste fill, the original cemented hydraulic fill (“CHF”) plant is no longer utilised and would require significant maintenance before it could be brought back into production.

13.10 Paste Fill

The paste fill plant was built in 2018 by Quattro Project Engineering (“QPE”) and was initially operated on a hire basis before the plant was purchased by CMPL in 2020, although the operation and maintenance of the plant transitioned to CMPL operations in late 2022. Paste fill is obtained by removal of water from the full tailings stream through vacuum filters at the paste fill plant to produce filter cake and adding cement as required. The paste fill plant runs as required when fill is required to fill stopes; at other times process tailings are dewatered and stockpiled adjacent to the plant for future use. On average, 55% of the process tailings are used as paste fill, with the remaining 45% pumped directly to the STSF. An ongoing improvement process is underway that may result in reduction of cement usage, or use of alternative slag and lime blends to reduce cement usage.

Paste Fill Reticulation

The paste fill is delivered from surface to 9430RL underground via a single 835m long borehole with an outer 250mm casing and inner replaceable casing of 110mm diameter.

The underground reticulation system comprises steel pipe rated to 10MPa. These lines connect with inter-level boreholes, three of which are cased with steel pipe; the remainder are unlined drill holes. The reticulation system is currently around 1,850m in total length. An expansion of the reticulation network is underway to the southern section of QTSN at depth, and into QTSC.

The elevation difference from the surface plant to the underground delivery points poses a risk of over-pressurisation of the reticulation system, with potential for bursts, blockages, and hazards to personnel. Consequently, a key facet of the system is automated control including pressure sensors. The single delivery borehole poses some reliability risk and may warrant consideration of establishing a second hole. CMPL considers blockages and pipe damage to be the main risks for the paste fill system and is considering the potential duplication of the delivery line to additional redundancy to its operation.

13.12 Filling Status

Discussions with mine management during the site visit suggest that available stope voids in the active mining areas have been filled. There is some uncertainty regarding the extent of stope voids remaining in the old mining areas in the upper levels of the mine, a major consideration for any plans to mine the remnant resources in the upper levels.

13.13 Hydrogeological Parameters

There is minimal ground water inflow into the mine and this condition is not expected to change with depth. Groundwater has little impact on the geotechnical conditions in the mine and there is minimal need for mine dewatering.

13.14 Other Mine Design and Plan Parameters

For additional parameters used in CSA's mine design and planning process such as orebody-specific design guidelines, mining dilution and ore loss, please refer to Section 12 Mineral Reserve Estimate, including 12.3 Design Guidelines and 12.4 Modifying Factors.

13.15 Mine Schedule

As part of the Mineral Reserve estimation process, CSA establishes an detailed schedule of mining physicals in which Mineral Reserves are mined, transport, hoisted, processed and sold as final concentrate product. Scheduling of mining stopes is developed using Deswik Scheduler software which combines both automated and manual scheduling processes to ensure a practical, productive and profitable mining sequence occurs. Iterative schedule smoothing is often required in order to deliver consistent ore tonnes and grade to the processing plant whilst managing mobile fleet availability and maintenance outages across fixed and mobile assets.

CSA underground mining production is the primary driver to annual concentrate sales, due to the excess capacity available in downstream infrastructure. With approximately 2.3Mtpa material hoisting capacity in the shafts and 1.4Mtpa concentrate processing capacity in the processing plant, CSA scheduling is mining-centred and is currently planned at 1.2-1.3Mt of ore per annum (1.2-1.3Mtpa) for the Reserve estimation process.

Recovery assumptions used in the mine scheduling process are 97.5% for copper and 80% for Silver.

Table 13.1 summarises key physicals for the CSA Reserve schedule, including ore/waste tonnes, grade, recoveries and concentrate production.

Table 13.1

CSA Mine – Mineral Reserve Production Schedule 2023-2029

Description	Unit	2023	2024	2025	2026	2027	2028	2029
Ore tonnes	t	1,207,255	1,236,344	1,207,349	1,231,651	1,242,557	1,248,709	485,529
Waste tonnes	t	265,226	300,842	263,880	219,932	274,490	276,270	111,281
Total Material Moved	t	1,472,481	1,663,054	1,586,735	1,494,567	1,551,002	1,601,149	596,810
Development - Capital	metres	2,884	1,879	1,596	913	773	469	85
Development - Operating	metres	3,508	2,090	1,547	1,682	1,520	1,566	625
Development - Total	metres	6,393	3,969	3,143	2,595	2,293	2,035	710
Ore Milled	t	1,207,255	1,236,344	1,207,349	1,231,651	1,242,557	1,248,709	485,529
Cu Feed Grade	%	3.65	3.34	3.84	3.85	3.79	3.72	3.41
Ag Feed Grade	g/t	18.70	14.39	14.95	13.18	13.48	13.41	12.10
Cu Contained in Feed	t	44,072	41,333	46,389	47,434	47,044	46,473	16,769
Ag Contained in Feed	toz	601,092	572,150	580,252	521,987	538,343	538,184	191,347
Cu Concentrate Produced	dmt	171,118	159,869	181,645	189,075	168,847	219,542	72,829
Cu Grade	%	25.1	24.8	25.0	24.7	26.9	26.3	26.3
Ag Grade	g/t	87.4	87.5	80.0	69.5	78.0	78.0	78.0
Cu Recovery	%	97.5	97.5	97.5	97.5	97.5	97.5	97.5
Ag Recovery	%	80	80	80	80	80	80	80

13.16 Mining Fleet Requirements

The existing underground mining fleet is industry standard, as summarised in the Table 13.2 below. One battery electric loader is being trialled at CSA and is reported to demonstrate good productivity over a 6-7-hour period, requiring 2-3 hours to recharge.

Table 13.2

Primary CSA Underground Mining Equipment as at December 2022

Make	Model	Quantity
Sandvik Cable bolter	DS421-C	2
Epiroc Simba Production Drill	E7C	3
Jumbo Development Drill	DD421-60C	3
Sandvik Truck	TH663i	7
Epiroc Truck	MT6020	1
Epiroc Truck	MT5020	2
Sandvik Loader	LH517i	8
Epiroc Loader	ST14 BEV	1

13.16.1 Equipment Productivity and Usage

Equipment performance differs between the fixed and mobile plant with availability and utilisation being reported as shown in Table 13.2 for the 2022 calendar year. Maintenance of fixed and mobile equipment appears adequate and effective given the age of some of the equipment.

Table 13.3

Plant and Equipment Availability and Utilisation - 2022

Equipment	Development Drills	Production Drills	Loaders	Trucks	Hoist (both winders)	Mill/Plant
Availability	85%	88%	88%	83%	75%	82%
UoA	48%	33%	39%	59%	53%	80%
Productivity	13m/day	133m/shift	36t/ophr	31t/ophr	217t/ophr	126t/ophr

Note: UoA = Utilisation of Availability, ophr = Operating hour

CMPL reports that the current bottleneck in production relates to the bogging and trucking of ore. CMPL has recently completed a process of purchasing new equipment to replace the high-hour trucks and loaders. 10 trucks and 8 underground loaders were replaced, with the delivery of the last three Sandvik trucks due in Quarter 1 (“Q1”) 2023. The loaders and trucks are in the process of being changed out to a new Sandvik diesel fleet. The replacement loaders are Sandvik 17.2t capacity LH517i. The replacement trucks are 63t Sandvik TH663i.

BDA considers that upgrading the ageing mobile equipment fleet is necessary and should improve availability. Standardisation of truck and loader models is sensible. However, the greater issue with all underground fixed and mobile equipment has been poor utilisation. BDA notes that this is an area of review for CMPL. Issues that have been identified include operator shortages, work site availability, downtime due to shift changes, refuelling and tramping time to the work site and less than optimal planning. CMPL has advised that it is working on improvements in these areas.

13.17 Mine Personnel Requirements

Mining department manning as at end 2022 comprised 507 full-time employees and 19 contractors, for a total CSA workforce of 526 against an estimated budget of 574 for 2022. The organisational structure is reasonably typical, split into Production, Development, Services, Mobile Maintenance, and Technical Services. Each department is the responsibility of a Superintendent who reports to the Mining Manager. In general, the underground workforce is skilled and experienced.

CMPL reports that staff shortages have been a contributing factor to under-performance in the mine over the last two years. Several senior staff are employed on a fly-in fly-out (FIFO) basis and were impacted by COVID-19 travel restrictions.

CMPL’s forecast manning for 2023 for the entire operation is 571, with similar levels to be maintained for the remainder of the Reserve life of mine.

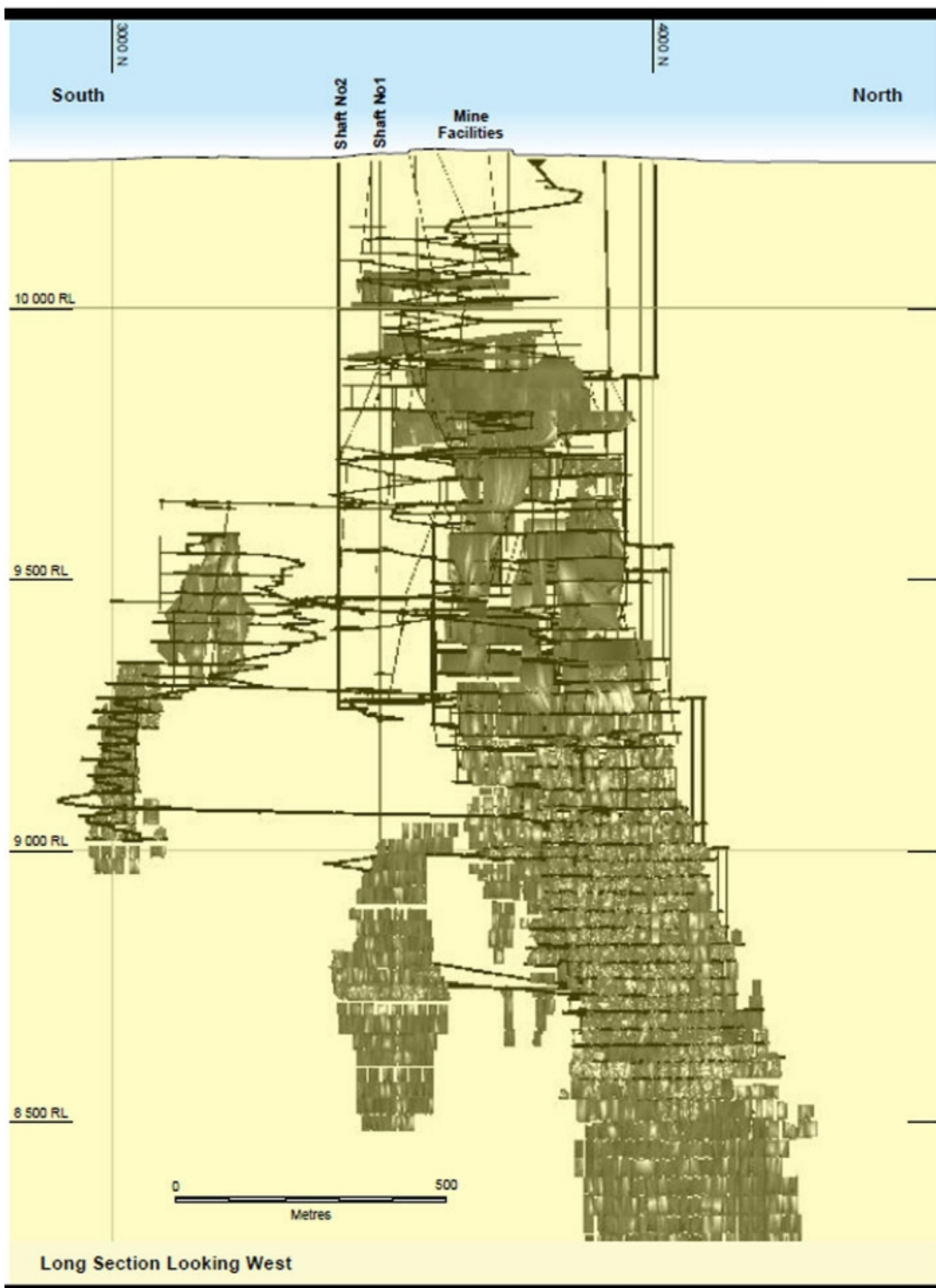
13.18 Mine Map

Figure 16 shows a long section of the underground working illustrating the Final Mining Outline. Figure 22 shows a plan view of the illustrating the Final Mining Outline and key surface infrastructure.

13.19 QP Opinion of the Mining Method

The QP considers that the application of both longhole open stoping and Avoca stoping to the various lodes at CSA to be appropriate. Longhole open stoping with cemented paste fill being preferred in the deeper areas of the mine where geotechnical conditions can be more challenging. Lessons have been learnt with stope orientation and ground control practices in recent years that are providing a beneficial input for the mine design, especially for the lower mine levels.

The QP notes that most on the Mineral Reserve is located in and around the existing mine environment, which should reduce both risk and cost, and take some pressure off mining exclusively in the lower levels of the mine.



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Figure 16
BDA - 0230-02-Feb. 2023

CSA Mine

END OF MINE LIFE - LONG SECTION
Behre Dolbear Australia Pty Ltd

14 PROCESSING AND RECOVERY METHODS

14.1 Introduction

The current CSA processing plant has been operating since 1967. It has operated well over the years and metallurgical performance has been very good with copper recovery to flotation concentrate recovery of around 97%-98% producing concentrates grading averaging 26-27% Cu (Figure 17).

Design concentrator throughput is 1.4Mtpa, with design copper production of around 45-50ktpa plus approximately 450-520ktoz of contained silver in concentrate per year as a payable by-product (approximately 2- 4% of revenue). Concentrator throughput is limited by ore availability linked to production capacity from underground. In recent years this has averaged around 1.1Mtpa to 1.3Mtpa. With improvements in mining area availability and location, the Reserve plan estimates production at 1.2-1.3Mtpa over the course of the Reserve life of mine.

Mill production history 2017-2022 is shown in Table 14.1

Table 14.1
CSA Mill Production History 2017-2022

Description	Unit	2017	2018	2019	2020	2021	2022
Ore Milled	kt	1,100	1,002	1,105	1,224	1,062	1,033
Milled Grade	% Cu	4.98	4.57	4.01	3.84	3.90	3.68
Contained Copper	kt	54.8	49.5	44.2	46.9	41.4	38.0
Copper Concentrate Tonnes	kt	211.4	171.6	162.9	172.2	157.3	144.4
Copper Concentrate Grade	% Cu	25.3	26.1	26.7	26.8	25.8	25.9
Copper Recovery to Conc.	% Cu	97.5	97.6	98.4	98.2	97.9	98.0
Cu Production	kt	53.4	44.8	43.5	46.2	40.5	37.3
Ag Production	ktoz	564	459	462	516	459	446

14.2 Comminution

14.2.1 Primary Crushing

Underground ore is primary crushed underground to a nominal size passing 250mm using two 1,500mm (60 inch) by 1,200mm (48 inch) jaw crushers, located at the base of Shafts 1 and 2 (Levels 9 and 10). The crushed ore is hoisted to surface and conveyed to one of four 7,000t crushed ore bins on surface (Figure 17). Ore from these bins is conveyed via apron feeders to the SAG mills at the concentrator.

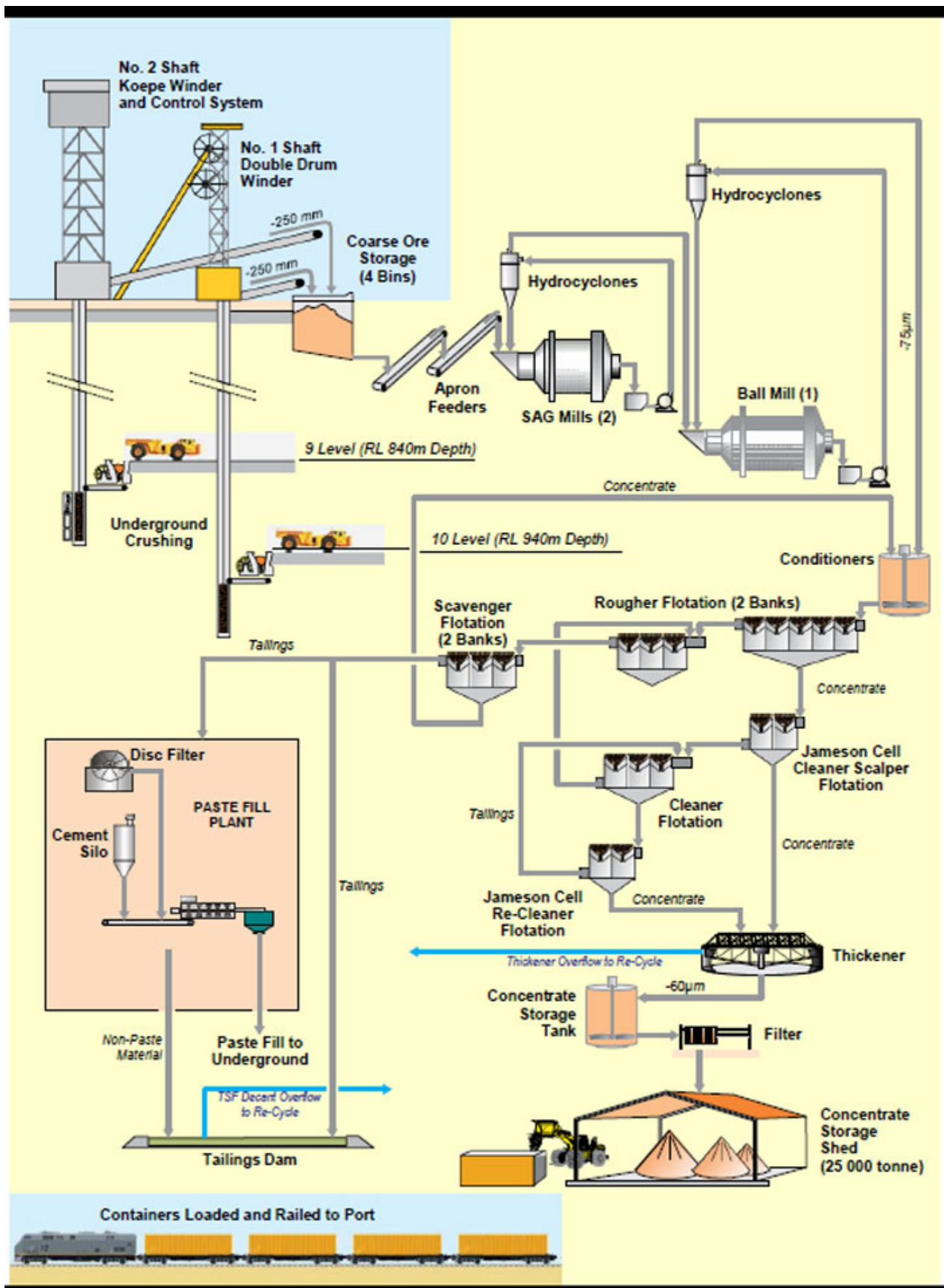
14.2.2 Concentrator Operations

The concentrator flowsheet (Figure 17) comprises:

- Three grinding mills, each a Hardinge Cascade unit 6.6m (26ft) by 2.1m (7.2ft), have been operating as two semi-autogenous grinding (SAG) mills operating in either closed circuit or open circuit and a secondary ball mill operating in closed circuit. The two primary SAG mills were driven by 900kW motors while the secondary ball mill is powered by a 1,130kW motor. One of the primary SAG mills has been replaced (September 2022) with a new Metso 1.6MW mill, with the second primary SAG mill (Metso 1.6MW) to be replaced in 2023. There is flexibility to arrange the three mills in different circuit configurations.
- The ground product from the SAG mills passes via a series of hydrocyclones to the ball mill, with the oversize returning to the SAG mills. The ground product from the ball mills also passes through a bank of hydrocyclones to provide a particle size distribution of 80% passing 75 micron ("P₈₀=75µm") which is sent to the copper flotation circuit; oversize material is returned to the ball mill.
- The flotation circuit has a number of circuit options, but effectively the circuit comprises rougher copper flotation followed by a scavenger recovery circuit. Scavenger concentrates are recycled to the rougher feed while rougher concentrates are fed to a cleaner circuit. The cleaner circuit is made up of cleaners followed by recleaners. Cleaner tailings are returned to the scavenger circuit; scavenger tailings are delivered to the paste backfill plant or discarded as final tailings. The recleaner concentrates are sent as final concentrates.
- Recleaner concentrates are first thickened and then filtered in two plate and frame filters. Final filter cake moisture is about 9.5%. The concentrates are stored in a 25kt capacity concentrate storage shed awaiting loading into containers and rail transport to the Port of Newcastle for export.

- Slurry from the paste backfill plant is sent to an hydrocyclone circuit with coarser underflow solids pumped underground as paste fill material. Hydrocyclone fines overflow is sent to the tailings thickener. Material from the tailings thickener is delivered to the tailings storage facility (TSF).
- Tailings thickener overflow along with TSF decant is recycled to the plant.

BEHRE DOLBEAR



Metals Acquisition Corp.

CSA Mine

Figure 17
BDA - 0230-02-Feb. 2023

PROCESS PLANT FLOWSHEET
Behre Dolbear Australia Pty Ltd

The metallurgical performance of the CSA plant is very good. Copper recovery to concentrates from 2018 to 2020 averaged 98%, though this dropped to 92% in 2021; recovery of silver, the only by-product, averages about 80%. Concentrate Cu grades average about 26-27% Cu and about 80g/t Ag.

Plant operating time during 2022 was quite variable and utilisation was comparatively low; primarily related to ore feed supply from underground. Data for calendar year 2022 is summarised in Table 14.2.

Table 14.2

CSA Concentrator Performance January to December 2022

Item	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Mill throughput	kt	92,700	69,952	107,888	100,964	89,316	78,543	65,204	66,927	83,157	84,840	89,351	104,234	1,033,078
Availability	%	97%	84%	90%	93%	94%	83%	72%	51%	93%	94%	83%	93%	86.96%
Utilisation	%	71%	65%	85%	87%	70%	60%	49%	45%	73%	67%	66%	79%	69.95%
Runtime	hrs	566	464	655	642	563	494	421	436	557	547	510	620	6,476
Plant throughput	t/h	164	151	165	157	159	159	155	153	149	155	175	168	160
Overall Utilisation	%	69.1%	54.7%	77.1%	81.1%	66.2%	49.8%	35.4%	23.0%	67.5%	63.2%	54.8%	73.3%	60.8%

CSA has changed one of the sixty-year-old SAG mills and plans to change a second in 2023. This should allow reduced plant downtime significantly and allow some degree of throughput expansion. At 8,000 plant operating hours (91.3%), the annual throughput capacity should be about 1.45Mtpa, though actual mill throughput is likely to remain constrained by underground mine production levels until new ore sources are developed.

In a report assessing CSA's expansion potential, it was noted that there are possibilities for third party "toll treating" options for about 0.4Mtpa.

CSA has also reviewed water supply options to the mine. The current installed infrastructure is capable of supplying sufficient water to allow treatment of approximately 1.4Mtpa. BDA understands that given recent heavy rainfalls in Eastern Australia, this cap has been removed. The major source of water for the CSA operation is the Cobar Water Board supply, piped from Nyngan. This is supplemented by on-site catchments and bore water. The government has recently announced an upgrade of the Nyngan to Cobar pipeline and pump stations to increase capacity and reduce water losses.

The CSA operation experiences recruitment difficulties typical of remote sites. The site currently has critical maintenance positions open which it has been unable to fill for an extended period. A number of vacancies are being filled by technical service providers on contract.

14.3 Concentrate Product

The copper concentrate produced by the CSA mine is high-quality and acceptable to off-take smelters. The concentrate grades, on average, about 26% Cu with payable silver at about 80g/t Ag. The concentrate contains no deleterious elements that would incur a penalty. The shipped concentrate has moisture levels of around 9.5%, which comply with the Transportable Moisture Limits for ocean freight. The particle size distribution for the shipped concentrates average 80% passing 62 micron ($P_{80}=62\mu\text{m}$).

Concentrates from the processing plant are stored on-site in two large storage sheds located next to the rail siding and a loading station. Concentrate is loaded into special containers with removable covers and the containers loaded by front end loader ("FEL") onto the train. Each train typically comprises 54 wagons carrying 108 containers containing approximately 2,900wmt of concentrate. At Newcastle Port the containers are offloaded using a forklift and placed into a tippler and emptied into a bulk storage shed. Ships are loaded using a FEL, belt feeders and conveyors; each shipment is typically 10-12,000wmt.

14.4 Tailings

Flotation tailings either sent to the Paste Fill plant or the final tailings thickener depending on mining backfill requirements. The Paste Fill Plant takes the full stream tailings and partially separates the water through vacuum filters to produce filter cake. The filter cake is mixed with cement and sent underground as paste fill. Waste rock is included in the cemented fill when available

Tailings product is thickened using a high-rate thickener before being pumped to the storage facility for deposition.

The CSA Mine deposits thickened tailings within the South Tailings Storage Facility which is a licenced discharge point for the CSA Mine.

Although variable based on production sequencing, approximately 44% of the tailings is sent to the paste fill plant and ends up as backfill with the remaining 55% of the tailings deposited in the Southern Tailings Storage Facility.

For additional information on CSA's Tailings Storage Facility, please refer to Section 15.5 and Section 17.6.

14.5 Other Processing Inputs

14.5.1 Consumables

Due to the high-grade ore at CSA, the processing facility is not required to process a large volume of ore to extra the copper, particularly when compared to other copper mines in the industry. As a result of its comparatively small size and efficient ore recovery performance, the plant does not require large supplies of consumables such as grinding media, wear components or reagents relative to other costs of the operation.

The main consumable used in the processing operations are grinding media and mill liners which, combined, are approximately A\$2-3M per annum. These consumables represent approximately 10% of total processing costs and 1% of total minesite costs each year).

14.5.2 Personnel

Approximately 110 employees work across the fixed plant areas of CSA including the concentrator, concentrate handling and paste fill plant. The consistency of processing operations has led to greater stability in the workforce, relative to the mining operations, and is expected to remain at similar levels for the Reserve life.

14.5.3 Energy and Utilities

The third-highest cost driver in the processing facility, after labour and consumables, is power and utilities. As with process plant consumables, the high-grade ore at CSA enables copper concentrate to be processed using a relatively low small total grinding mill power per tonne of produced copper. Power cost for the process plant is approximately A\$3-4 M per year, which represents 15-20% of total milling costs.

Due to the high availability and near-continuous operation of the grinding mills during operation, annual power demand is generally extremely consistent and not expected to vary throughout the Reserve life of mine. Variances in power consumption may occur on a short term bases during maintenance outages or when ore supply from the underground is not available.

Processing facilities require large volumes of water throughout almost all stages of the processing pathway, however the efficiency of these plants to recover and reuse water significantly reduces losses and, therefore, the amount of fresh water required.

Water loss in the process plant is predominantly through entrained water/moisture leaving the plant within concentrate product (~9.5% water content per tonne of concentrate) or tailings (~70% water content per tonne of tailings). Approximately 30%-50% of water from the tailings is recovered through a decant system on the tailings storage facility or through the filtration process within the past fill plant, however water within the concentrate is interstitial and not recovered before it departs site.

Water consumption within the process plant very well understood, stable and not expected to vary over the Reserve life of mine.

14.6 QP Opinion on Processing and Recovery Methods

The QP is satisfied that the processing facilities at the CSA mine are in good order and fit for purpose. Completion of the ball mill and fine ore bin replacement projects should set the process plant up for ongoing reliable operations. Operating performance has been good and consistent and the QP expects this to continue.

15 INFRASTRUCTURE

15.1.1 Roads

Road access to the mine site from Sydney is via National Highway No. A32, the Barrier Highway, a high-quality rural highway to Cobar and from there to the mine site on sealed urban roads (Figure 1).

15.1.2 Airstrip

Cobar is serviced by a sealed airstrip with commercial flights three times per week to and from Sydney.

15.1.3 Rail

The site is serviced by a rail line (Figure 1) which allows transport of concentrate product to the Port of Newcastle for export. Concentrate is loaded into rail wagons at the site and railed to Newcastle along the NSW rail network. Railing to Port Kembla, south of Wollongong, is also an option.

15.1.4 Port Facilities

Concentrate product is unloaded from rail wagons and stored at the Port of Newcastle before being loaded onto ships for export. The port facilities are owned and operated by a private company, Port of Newcastle Operations Ltd, with the unloading, storage and ship loading services being provided to the project in accordance with a services contract.

15.2 Ventilation Infrastructure

The ventilation system is based on four primary exhaust fans. The surface fans provide a combined volumetric flow rate of approximately 700m³ per second ("m³/s") of contaminated air extracted out of the mine via a dedicated series of ventilation raises from the bottom of the mine to surface. Contaminants are mainly inhalable and respirable silica dust, diesel particulate matters, gaseous fumes (nitrogen dioxide and sulphur dioxide), and heat.

No. 1 Shaft, No. 2 Shaft, Fresh Air Raise 1 ("FAR1") and the main decline from the surface are the primary fresh air intakes. The No. 2 Shaft accounts for about 40% of the total mine fresh air, FAR1 38%, No. 1 Shaft 12% and the decline 10%.

Underground auxiliary fans force-ventilate working areas with fresh air tapped from a series of staggered and interconnected fresh air raises.

The mine's geothermal gradient is 2°C per 100m; the air is chilled by surface refrigeration plants at No. 2 shaft, No. 1 Shaft and FAR1, (6MW, 4MW and 10MW respectively), down to 8°C wet bulb ("WB") to target a 24°C WB fresh air temperature at 8460RL. With the current ventilation system, WB temperatures in the working areas of 8460RL are around 27°C WB, which is considered to be within industry safe working limits.

As mining gets deeper, sustained production will depend on developing sufficient mining fronts to support production output. QTSN remains the primary production area but development in 2020 and 2021 was behind target and caused delays in establishing new mining levels. Recent focus on the decline at depth has enabled the mine to catch up some of the shortfall with three levels available for production from QTSN as of February 2023. Production is supplemented from QTSC and Western stopes. The ventilation and cooling demand is driven by the increase in mining depth and number of mining areas and the increasing mining fleet required to support the targeted production.

15.2.1 Ventilation Upgrade Project

CMPL initiated an assessment of the primary ventilation and cooling systems in late 2017, with a feasibility study launched in 2018 to establish LOM ventilation and refrigeration requirements. CMPL completed this study October 2018, with costs adopted in the 2019 Business Plan. The Ventilation and Refrigeration Upgrade Project aims to enable CSA to achieve and sustain a 1.2-1.3Mtpa production rate, with inclusion of mining area in QTSC, to a potential depth of 2,200mbs (exceeding the maximum mining depth of 1,980mbs planned in current Reserve life of mine). The upgrade project comprises two stages: Stage 1 primary vent fan installation is now completed and refrigeration upgrades to be completed by end 2022; CMPL considered Stage 2 to be optional and has deferred its commencement to allow for assessment of Stage 1 performance before committing additional expenditure.

Stage 1 targets are summarised below:

- increase primary airflow from 700m³/s to 1,000m³/s
- replace or upgrade existing four primary surface exhaust fans located over two RARs from 4 x 1.35 megawatt equivalent (“MWE”) to 4 x 2.5MWE; new fans are on site and civils are complete for their installation
- construct a new intake raise system (FAR2)
- expand the refrigeration plant capacity to double fixed-plant cooling capacity from 8 megawatt bulk air cooling (“MWBAC”) to 16MWBAC, new plant uses R134a
- relocate the existing 6MWBAC bulk air coolers from No.2 Shaft to FAR1 and No.1 Shaft
- install new bulk air coolers at FAR1 rated at 8MWBAC
- continue existing surface and underground rented cooling infrastructure of 10MWBAC
- achieve total 24MWBAC cooling capacity.

BBE Consulting (Australasia) (“BBE”) has undertaken the Stage 2 ventilation and cooling study for assessment of potential future mining at depths below the current Reserve plan; the proposals include a new return air raise (RAR3) from surface to the lower levels of the mine and additional cooling capacity. With Stage 1 now complete, the ventilation system is more than capable of supporting the mining operation to achieve the current Reserve life of mine plan.

BDA notes that the planned cooling capacity available in late 2022 is nominally 32MW, which matches the predicted LOM requirements. Any cooling upgrade expenditure beyond 2022 is likely to be directed towards replacement of leased cooling equipment with permanent plant.

As underground ventilation requirements are predominantly driven by the number of diesel-powered mobile equipment units operating, an increased incorporation of battery/electric vehicles into the operation should have a positive impact on ventilation requirements in the future.

15.3 Power Supply

Power supply to the site is via a 132kV transmission line from Essential Energy’s western NSW network. The Essential Energy network is supplied by a mix of conventional and renewable power generation, including the 102 megawatt (“MW”) and 132MW solar farms in the nearby towns of Nyngan and Nevertire. The current available capacity of the supply facilities is around 26 mega volt amperes (“MVA”). The average power demand is around 26MVA and will rise to a peak of around 36MVA following completion of the ventilation upgrade project. A programme to increase the capacity of the power supply facilities is underway, with the project due for completion in April 2023 with the installation of a new 40MVA transformer. A 22kV line is also connected to the site from Cobar and is available for limited supply in emergencies. Further backup power is supplied by diesel power generators.

15.4 Water Supply and Water Pipelines

The majority of water supply for the operation is provided by the Cobar Water Board from a weir on the Bogan River at Nyngan (Figure 1) through a network of pumps and pipelines. Additional water is available from tailings water recycling, surface water capture and a borefield installed in 2019. Water demand is around 3 megalitres per day (“ML/day”) in summer, with most water supplied by the Cobar Water Board system. The borefield has capacity for up to 1.3ML/day, although CMPL advises that the water quality is poor and requires treatment (ie. additional cost) before use in the process plant. The Cobar Water Board system is adequate to supply the operation up to around 1.2Mtpa; the borefield is only required during periods of drought or should a plant feed rate in excess of 1.2Mtpa be considered for extended periods.

15.5 Tailings Storage Facility

CSA mine currently operates one tailings storage facility, the South Tailings Storage Facility (“STSF”) (Figure 4), comprising the main STSF (approximately 63ha) and the STSF Extension (19ha). The main STSF operated until January 2007 at which time the facility had been filled to its freeboard-related capacity. In January 2007, the newly constructed STSF Extension was commissioned and received thickened tailings from the ore processing plant until September 2010. A 3m embankment raise was constructed on the surface of the STSF in 2010, with deposition reverting back into this facility since. The STSF was upgraded to alter the deposition method to a central depositional system. This method provides substantial water savings and will result in a final landform more amenable to rehabilitation. There will also be a reduction in the requirement for suitable material for tailings dam wall lifts and final capping; final topsoil requirements for rehabilitation will be lower than with the old multi- spigot perimeter depositional method and there will be an increase in tailings dam integrity as the resultant solids will contain less moisture.

The 2010 wall lift reached its capacity in September 2019. CSA constructed a perimeter embankment through a further wall lift (Lift 9) which increased deposition capacity through to around April 2024. One further wall lifts (Lifts 10) is scheduled and are expected to provide enough capacity for the Reserve LOM. For any potential life extension beyond the current Reserve plan, an additional wall lift (Lift 11) is possible on the STSF before pursuing alternative tailings storage facility locations.

Tailings from the process plant flotation circuit are either sent to the paste fill plant or thickened in a high-rate thickener and sent to the STSF. Supernatant water is collected in a dedicated decant dam for recycling to the process plant circuit.

The STSF is well operated with no significant issues in relation to the facility's integrity. A tailings storage facility stability assessment conducted by Golder Associates Pty Ltd has indicated some sections of the dam where the Factor of Safety ("FOS") is below the target for Post Seismic (Liquified Strength). However, the Static FOS (Undrained Strength) remains within target for these areas. CMPL has commenced a study to install buttressing in specific areas on the STSF wall to improve the FOS to the Post Seismic (Liquified Strength). Current early phase estimate to rectify the FOS is approximately \$A5M and is expected to be completed in 2023.

The North Tailings Storage Facility (NTSF) (132.9ha) which lies adjacent to the northern boundary of the STSF, has been decommissioned and has been excised from the CSA Mine Lease (CML5); NTSF is owned by, and is the responsibility of, the New South Wales government.

At present, there are no additional tailings storage area options with planning approval, other than STSF Stages 10 and 11. BDA understands that CMPL has commenced preliminary work on potential additional TSF storage areas, including consideration of the currently excised NSTF which may offer an opportunity for further tailings storage.

Tailings Storage Facility Design Standards

Regulatory standards that currently apply to the STSF are Dam Safety NSW, Australian National Committee on Large Dams (ANCOLD) and the Glencore Protocol 14. Protocol 14 covers both dam safety and environmental aspects of the STSF with a consequence category assessment method based on the Canadian Dam Association ("CDA") standards.

Based on Dam Safety NSW, ANCOLD and Glencore Protocol 14, the consequence category assigned to the STSF is 'Significant'. In 2019, Dam Safety NSW updated its Dam Safety Regulation and methodologies, which require all 'declared dams' in New South Wales to adhere to the new regulations by 1 November 2021. The STSF is a 'declared dam' (Dam ID 497) and regulated by Dam Safety NSW.

In summary, the tailings management strategy adopted by CMPL is appropriate, and the design standards used incorporate a risk-based approach as required by local standards.

15.6 Workforce Accommodation

The majority of the workforce is accommodated in Cobar with some senior staff employed on a fly in/fly out ("FIFO") or drive in/drive out ("DIDO") arrangement. No workforce accommodation is provided at the mine site.

15.7 Site Buildings and Services

Site buildings comprise site offices, warehouses, and services buildings. Site services include power and water reticulation facilities, communications systems and fuel storage and dispensing facilities.

15.8 GP Opinion on Infrastructure

The CSA mine is well established with all infrastructure and services in place to sustain the current level of operation for the remainder of the mine life. Further lifts of the STSF are required and planning for these are well in train.

16 MARKET STUDIES

This section contains forward-looking information related to commodity demand and prices for the Project. The material factors that could cause actual results to differ materially from the conclusions, estimates, designs, forecasts or projections in the forward-looking information include any significant differences from one or more of the material factors or assumptions that were set forth in this section including prevailing economic conditions, commodity demand and prices are as forecasted over the reserve mine life period.

16.1 Copper Market Outlook

Copper Outlook Reports published by global research and consultancy group Wood Mackenzie and general market intelligence are the source of the copper market information provided in this section.

Broadly, copper concentrate stock balances will rise steadily as the rate of smelter capacity additions begins to slow. Copper concentrate TC/RCs have steadily risen from the very low levels seen 2021. In the meantime, there will be a steady increase in smelter utilization to a level of 88%.

The market has moved away from a historical smelting pricing model where Price Participation was included in the TC/RC terms settled between major miners and smelters for copper concentrates. There is also a mismatch in the types of new concentrates coming to market with a larger percentage of less desirable concentrate with higher deleterious elements compared to high-quality and highly marketable concentrates.

This is resulting in a bifurcated market for concentrates, with the smelter terms for high-quality concentrate being appreciably more favourable to the miner than for the concentrate with higher deleterious elements. High-quality concentrate is increasingly in demand to be used as blending feedstock material and it is expected that this divergence of smelter terms will continue and likely increase as more of the less desirable concentrate comes to market.

The concentrate produced at CSA is a very high-quality product, with no deleterious elements above penalty levels and is highly sought after for blending with other concentrates.

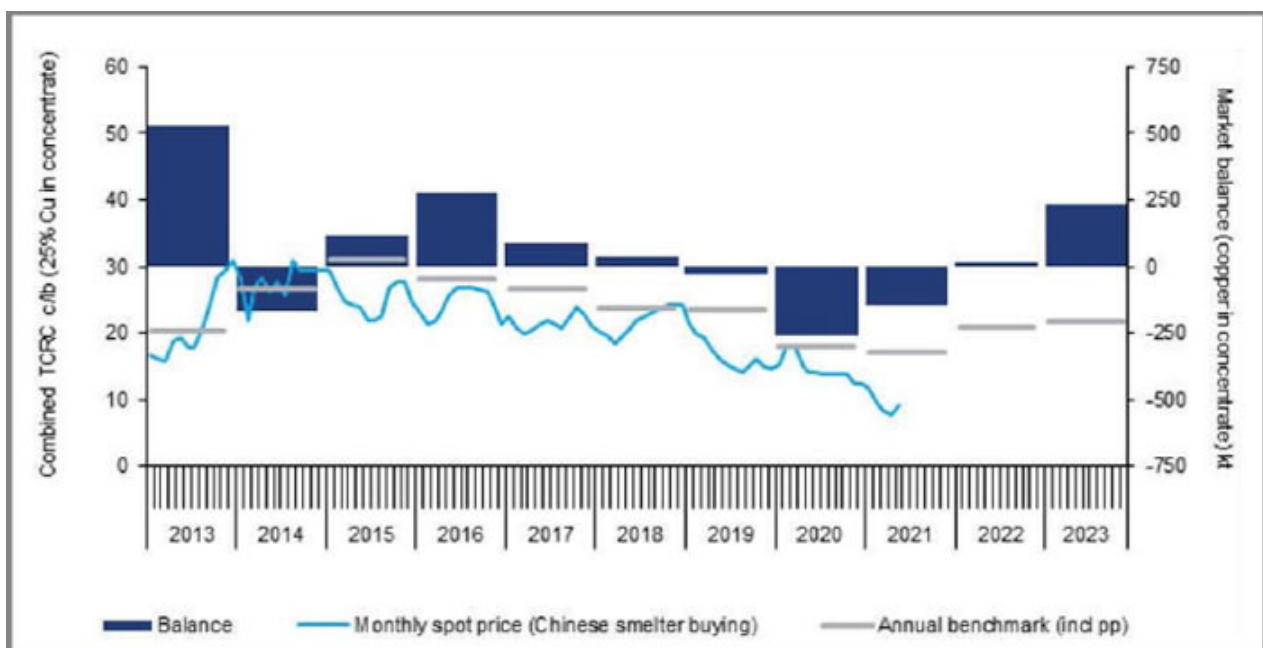
Smelter terms are typically settled on an annual Benchmark basis between major miners and smelters and published as a reference Benchmark. In addition, smelters often purchase concentrate on the spot market which is more reflective of the short term supply and demand balance.

As seen in Figure 18 below, annual Benchmark terms have increased since the record lows of 2021 (as a percentage of the copper price) when the majority of smelters were losing money.

As can be seen in Figure 16, the Chinese smelter spot terms were significantly below the annual Benchmark terms from 2015 onwards and are typically a good leading indicator of the forthcoming annual Benchmark terms

Figure 18

Copper Concentrate Market Balance versus TC/RCs



Source: Wood and Mackenzie.

16.2 Competition

The copper market in which CMPL operates is a deep, liquid market where copper is traded globally in both cathode and concentrate formats. CMPL operates within the global copper industry and faces competition from other copper producers for its main product.

The cost of turning copper and silver in concentrate into final usable copper and silver is expressed in the smelter charges set annually between the major copper producers and major Asian and European smelters.

These charges rise and fall depending on the global supply and demand for copper as well as the freight costs relative to other producers.

Australia is relatively close to the main Asian smelters, which historically has placed CMPL's concentrate in a strong position to achieve low smelter costs given the product's high quality. However, commencing in December 2020, the main market for these products (China) refused to accept Australian copper concentrates, forcing sales to be made to other Asian smelters. Copper producers from the rest of the world have still been able to sell concentrate into the Chinese market, which has placed Australian concentrate at a competitive disadvantage.

The high quality of the CSA Mine concentrate has meant that it can still be placed into the Asian smelting market at a slight cost premium to historical levels.

Much of the world's copper is produced in Latin American in large open pits that have a relatively low copper grade. In these mines, significantly more tonnes of earth have to be mined to produce a ton of copper relative to the CSA Mine. MAC believes that the carbon footprint of these mines is significantly higher than the CSA Mine and, given investor focus on ESG metrics, the CSA Mine is at a significant competitive advantage.

16.3 Copper Pricing

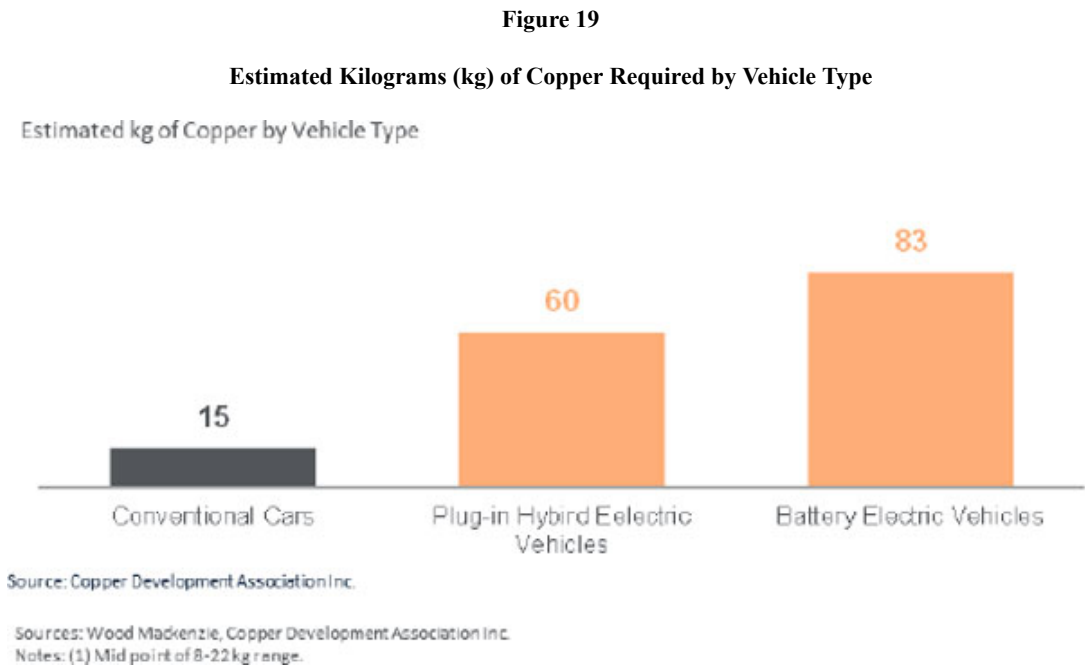
16.3.1 Global Copper Supply and Demand

World usage of refined Cu has more than tripled in the last 50 years thanks to expanding sectors such as electrical and electronic products, building construction, industrial machinery and equipment, transportation equipment, and consumer, and general products. Because of its properties, copper has become a major industrial metal, ranking third after Fe, and aluminium in terms of quantities consumed.

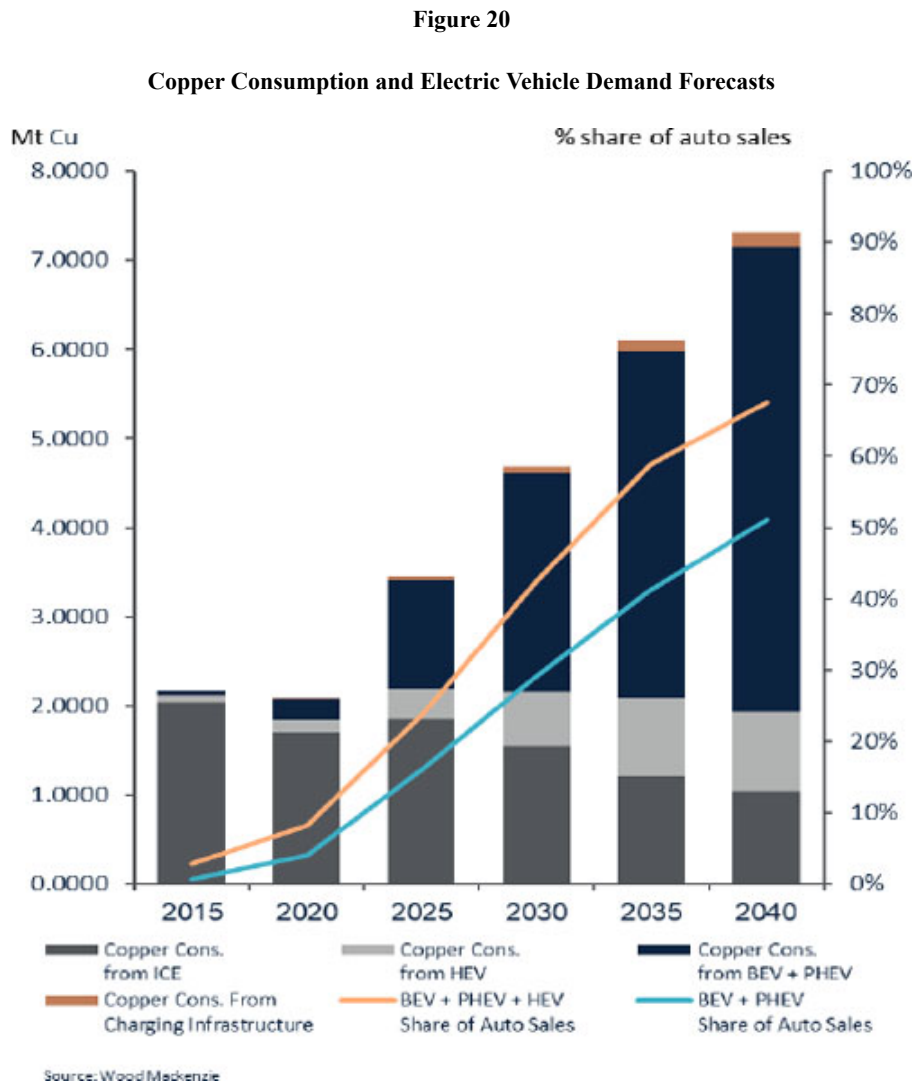
Global demand for copper is expected to grow at 1.3% compound annual growth rate ("CAGR") over the next five years. In the short term, the Cu market balance has been expected to turn into a small surplus, however supply side issues have increasingly reduced that surplus. Physical copper supplies in warehouses have shrink to record lows and often measured in days of global consumption. This has been price supportive during the period of China Covid 19 lockdowns. As China has reopened the copper price has reacted positively due to the very tight nature of the physical copper market.

Although copper demand scenarios differ among analysts, there is a general agreement that the major driver for increased copper demand will come from infrastructure investments associated with energy transitions. The International Energy Agency ("IEA") recently published a comprehensive report titled "The Role of Critical Materials in Clean Energy Transitions". The IEA notes that the shift to clean energy naturally involves burning less fuel but building more equipment. This equipment requires more copper and the drive to a Clean Energy Transition is generally viewed as positive for copper demand.

Electric vehicle ("EV") demand growth is also viewed to be strongly positive for copper demand. As shown in Figure 19, EV's use significantly more copper than a conventional internal combustion engine vehicle.



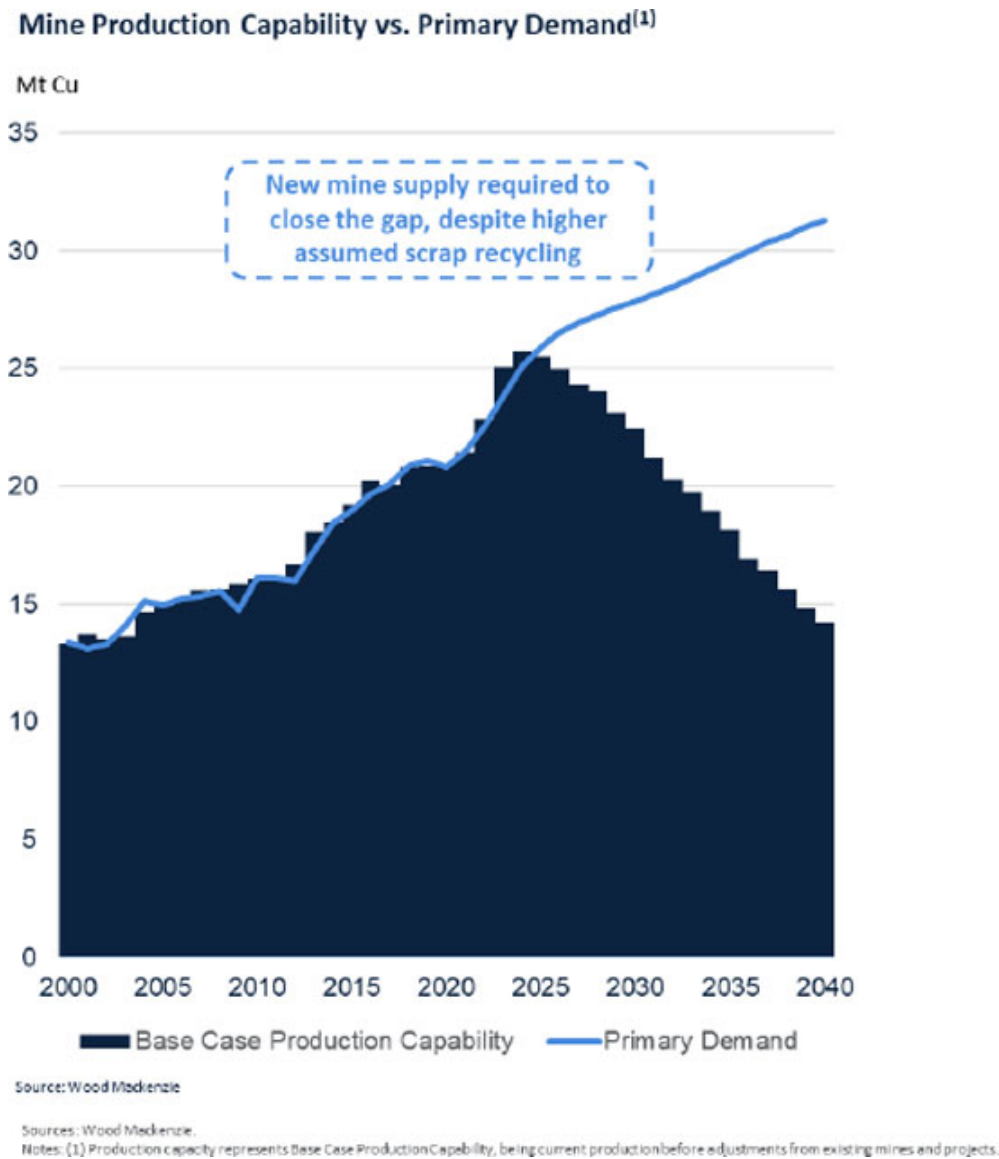
The growth in EV demand is expected to be very large. This is shown in Figure 20 below and the associated copper demand increase from this.



Based on the information available today, there is expected to be a significant growth in the demand for copper out through 2040 and a lack of new supply coming onstream to meet that demand.

Beyond 2024, the supply demand gap is expected to widen leading to higher Cu prices (Figure 21).

Figure 21
Mine Production Capability vs. Primary Demand



16.3.2 Copper Price Projections

Copper prices, in theory, correlate to the supply and demand of refined Cu. However economic policy, geopolitical events, wars, black swan events like the COVID-19 pandemic and the development of financial derivatives and associated market speculation has contributed to the volatility in prices.

There will always be differing views of what the future holds in terms of price based on analysis and assumptions.

The cost of building new production has increased rapidly over the past 20 years, with rampant cost escalation in the post Covid 19 period meaning the incentive price to bring new supply online has increased significantly.

Consensus pricing is regularly updated by analysts as their views change on these factors, however, in general there is a view that copper prices are well supported but the expected increase in demand, the difficulty of operating in many of the major copper producing countries and the time and cost of bringing new supply online.

Table 16.1 contains the Consensus pricing for copper and silver as at 1 February 2023 which shows a gradually increasing copper price out to 2026 and then a Long Term (LT) price of US\$3.68/lb.

Table 16.1

Consensus Pricing for Copper and Silver as at 1 February 2023

Table 16.1

Consensus Pricing for Copper and Silver as at 1 February 2023 (Source: CIBC Mining Markets)

Precious Metals	2023	2024	2025	2026	Long Term
Silver (US\$/toz)	\$ 22.15	\$ 22.78	\$ 22.40	\$ 22.56	\$ 21.79
Copper (US\$/lb)	\$ 3.70	\$ 3.85	\$ 4.06	\$ 4.14	\$ 3.68
Copper (US\$/t)	\$ 8,150	\$ 8,482	\$ 8,943	\$ 9,128	\$ 8,123
Exchange Rate (A\$/US)	0.68	0.69	0.70	0.71	0.72

Source: CIBC Mining Markets

16.4 Commercial Contracts

As part of MAC's binding sale and purchase agreement with GIAG, MAC has entered into an agreement to sell all concentrate product from the CSA mine to GIAG (the "Offtake Agreement"). The Offtake Agreement for the CSA mine commits 100% of the produced concentrate for the life of mine to GIAG, as the sole customer. The offtake terms are referenced to the annual Benchmark terms set by the industry and published annually, therefore considered market competitive. The offtake contains market standard clauses for payables, deductions and penalties for deleterious elements.

The Offtake Agreement contains market standard clauses for payables, deductions and penalties for deleterious elements as well as customary terms and conditions, including in relation to (i) quantity, (ii) quality, (iii) shipment and delivery terms, (iv) pricing, (v) payments, (vi) weighting and sampling, (vii) assaying, (viii) Incoterms and insurance, (ix) loss, and (x) force majeure.

For further details, please refer to Section 19.

16.5 Product Specifications Requirements

The principal product specifications required are for copper concentrate free from radioactivity and deleterious impurities harmful to smelting and/or refining processes. The CSA Mine concentrates are considered to be high- quality concentrate containing low levels of deleterious elements and is a sought-after concentrate for blending purposes.

The typical rejection levels for copper concentrate into China is as follows:

- Pb >6%
- As > 0.5%
- Fl > 0.1%
- Cd >0.05%
- Hg >0.01%

The CSA Mine concentrates are well below these levels.

17 ENVIRONMENTAL STUDIES, PERMITTING AND PLANS, NEGOTIATIONS OR AGREEMENTS WITH LOCAL INDIVIDUALS OR GROUPS

17.1 Introduction

The Cobar area has been impacted by mining and agricultural activities since the 1880s. The existing landscape surrounding the CSA mine is characterised by mining infrastructure, tailings storage facilities, shafts, disturbed grasslands and soil and rock stockpiles. The native vegetation of the area has been impacted by clearing and overgrazing with the historic removal of much of the native vegetation resulting in erosion and extensive colonisation by invasive species. This has created a dense regrowth, referred to as ‘woody weeds’ or Invasive Native Species. The landscape has become highly modified and vulnerable to wind and water erosion, particularly those areas devoid of vegetation ground cover protection. The region surrounding the CSA mine is dominated by rangeland agriculture.

Conditions for reopening the mine in 1999 included concessions obtained from the New South Wales government, including the excision of three areas from the Mining Lease: the North Tailings Storage Facility (NTSF), an area of subsidence and adjacent waste rock dumps.

The CSA mine is located in an area of low undulating NNW trending rises and is associated with a broad, prominent hill, Elouera Hill, which rises approximately 30m above the surrounding landscape. The mine lies close to the local drainage divide between the catchments of Sandy Creek in the southwest and Yanda Creek to the northeast.

The climate of Cobar is semi-arid with evaporation typically exceeding rainfall by a ratio of 6:1. The mean annual rainfall for Cobar is approximately 400mm. During summer months, maximum temperatures typically range between 28-39°C and during the winter months, maximum temperatures typically range between 13-20°C. Rainfall and temperature records have been recorded from May 1962 and evaporation from November 1967.

The CSA mine is located in a non-environmentally sensitive Area of State Significance; as such, mining activities are subject to Part 4 of the *Environmental Planning and Assessment Act 1979*. However, because CMPL’s Development Consent was granted in 1995 before the *State Environmental Planning Policy (State and Regional Development) 2011* came into force, its activities are classified as Non-State Significant Development based on the prior existing consent. The Cobar Shire Council (CSC) is the approval authority for most of the site development.

17.2 Baseline and Supporting Studies

17.2.1 Environmental Management and Reporting System

CSA mine operates under a documented Environmental Management System (EMS) that forms the basis of environmental management at CSA and includes procedures, standards and environmental management plans (EMPs) to ensure all regulatory requirements are met.

Statutory condition (R1.1) of CMPL’s environmental licence (EPL1864) requires it to submit annual statements of compliance for its Environmental Management System and practices. CMPL submits an Annual Return comprising a Statement of Compliance and a Monitoring and Complaints Summary to the NSW EPA in August each year. An Annual Environmental Management Report (“AEMR”) is compiled for the mine to fulfil the reporting requirements of the NSW Land and Property Management Authority, Dam Safety NSW, Cobar Shire Council (CSC) and the NSW Department of Planning, Industry and Environment.

For completeness, as CSA has been an operating mine for the past 55 years, no ongoing baseline studies are required for normal mining operations under CML5. CSA does conduct baseline environmental monitoring and heritage surveys when seeking approval for works outside the already approved operating areas. The CSA environmental team, along with familiar independent consultants, have extensive experience in conducting appropriate studies and ensure compliance to state and federal regulations.

17.3 Permitting

17.3.1 Introduction

The CSA Mine operates under a number of different approvals, including:

- Development Consents issued by Cobar Shire Council (CSC);
- Landowner’s Consent issued by NSW Department of Planning, Industry and Environment-Lands;
- Mining tenements issued by the NSW Department of Planning, Industry and Environment – under Housing and Property;

- Mining Operations Plan approved by the Resources Regulator;
- Rehabilitation Management Plan (“RMP”) authorised by the NSW Resources Regulator
- EPL1864 issued by the Environmental Protection Authority (EPA);
- Water licences issued by the NSW Office of Water (NoW); and
- Dangerous Goods licences issued by WorkCover NSW.

17.4 Mine Operating Plan

The Mine Operating Plan for the CSA mine is developed to satisfy the statutory requirements of all mining operations under CML5, the Environment Protection Licence EPL1864 and Development Consent No. 31:95, in accordance with the NSW Department of Planning, Industry and Environment under the Resources Regulator *ESG3: Mining Operations Plan (MOP) Guidelines (September 2013) for Level 2 Mines*.

Following the recent introduction of the *Mining Amendment (Standard Conditions of Mining Leases – Rehabilitation) Regulation 2021*, the MOP for large mines has been replaced by a targeted Rehabilitation Management Plan (“RMP”). The lease holder will provide annual reporting and scheduling of rehabilitation via an Annual Rehabilitation Report and forward programme. This will replace the current requirement for an Annual Environmental Management Report (“AEMR”).

The RMP has been submitted to the regulator and the mine continues to operate under the MOP while the regulator reviews the RMP application. The RMP is considered an improved process from the previous MOP though not expected to have any material change on CSA’s operations.

17.5 Mine Waste Management

Waste rock from underground development is backfilled into mined out stopes where possible, but any excess is hoisted or trucked to surface for storage on waste dumps. Most waste rock is classified as Non-Acid Forming (“NAF”) but around 30% of the waste material is classified as Potential Acid Forming (“PAF”) rock.

All waste rock materials are geochemically tested for issues related to acid rock drainage (“ARD”) and potential for metal leaching. Only suitable, low risk waste rock material is hoisted and stockpiled on the surface. Any geochemically unsuitable materials are integrated into the underground mining activities. The selection of appropriate ARD controls depends on several factors including the type and severity of expected environmental impacts and the opportunities available. Waste rock material is included in cemented rock fill (CRF) when available or backfilled into stopes to be filled with cemented paste fill (CPF).

Figure 16 show the final mining outline as a long section of the underground mine infrastructure and ore depletion at the end of the current Mineral Reserve life in 6.5 years’ time.

17.6 Tailings Disposal

The CSA Mine deposit thickened tailings within the South Tailings Storage Facility which is a licenced discharge point for the CSA Mine.

The amount of tailings deposited is monitored monthly and the dam is surveyed quarterly. Annual surveillance audits are conducted by qualified external dam engineers (Engineer of Record). Approximately 44% of the treated ore ends up as backfill and 55% of the treated ore ends up as final tailings deposited in the STSF. The remaining 1% is retained as copper concentrate.

Flotation tailings are either sent to the Paste Fill plant or the final tailings thickener depending on mining backfill requirements. The Paste Fill Plant takes the full stream tailings and partially separates the water through vacuum filters to produce filter cake. The filter cake is mixed with cement and sent underground as paste fill. Waste rock is included in the cemented fill when available.

To monitor operational freeboard within the STSF and ensure there is always sufficient capacity, quarterly surveys are conducted to track the available freeboard remaining within the dam. The results of these surveys are communicated back to the tailings engineers to allow for performance to be tracked and to initiate approvals and construction activities, should the surveys identify the STSF is reaching the end of its projected life sooner than scheduled.

Global engineering firm Golders Associates/WSP is engaged by CSA as the Engineer of Record for tailings monitoring, engineering and design activities.

17.7 Water Management

CMPL operates CSA Mine in accordance with the conditions stipulated in Environmental Protection License (EPL) 1864. No detailed requirements are made of CMPL regarding water management. Specifically, EPL1814 states that no water pollution may occur, and licensed activities including the processing, handling, movement and storage of materials and substances used to carry out the activity; and the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity, must be carried out in a competent manner. Further, all plant and equipment installed at the premises or used in connection with the licensed activity must be maintained in a proper and efficient condition and operated in a proper and efficient manner.

In lieu of site-specific water management conditions, CMPL have adopted the following principles stipulated in Australia's Department of Industry, Innovation and Science Water Stewardship handbook:

- Prevent discharges of dirty water;
- Reduce the importation of water from external water sources;
- Minimise the occurrence of water losses through evaporation and seepage; Maximise water use efficiency;
- Maximise water recycling and reuse on site; Separate water streams where practicable; and Minimise disturbance to existing drainage pathways.

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17.7.1 Water Balance

CMPL maintain a water balance model to be used in reporting and as a forecasting tool. The water balance model is informed by the collection of regular water transfer meter readings. By correlating data obtained from these readings with outputs from specific plant, a relationship between water usage and mining and ore processing parameters can be established and future water requirements more accurately estimated. Currently, reticulation volumes are measured with mechanical flow meters located at inflows and outflows of interest. The water balance model is continuously reviewed to ensure that it captures any modifications to water distribution. Water consumption and basic reticulation data are reported in an Annual Environmental Management Report (AEMR).

17.7.2 Recycling and Water Saving Measures

An extensive water recycling program is employed at CSA Mine to supplement process water requirements. Concentrate and tailings filtration, underground dewatering, and TSF decant have historically returned in excess of 250ML of water annually. All recycled water is transferred to the settling ponds for basic suspension treatment to reduce suspended solids before being pumped to Pork Pie. Recirculation of process water has been demonstrated by CSA metallurgists to be of no determinable detriment to ore processing performance indicators and may therefore be recycled indefinitely. The volume of water recycled through the ore processing and backfill circuit is expected to increase as paste continues to replace CHF as the primary means of underground void backfilling. Short term monitoring of water reticulation at the Paste Fill Plant has indicated that approximately 300kL may be returned daily.

All CSA employees and contractors are informed of the scarcity and importance of water as a resource in the site induction. Persons on site are held responsible for partaking in water conservation practices and reporting incidents of excess water usage through the internal hazard reporting system.

17.7.3 Surface Water Monitoring

CSA undertake routine surface water monitoring to demonstrate compliance with the conditions of EPL1864 and to provide data to assess the efficacy of site water management practices. Surface water bodies in CML5 do not extend into adjacent land parcels and do not supply a purpose outside of the mining and milling activities at CSA. As CSA does not discharge contaminated water offsite, a number of surface water bodies serve as contaminated water receptacles. The nearest neighbouring water bodies are Yanda Creek 15km east of the TSF, and Buckwaroon Creek 40km south-west of CML5. Both of these water bodies are ephemeral in nature.

Surface water sampling is conducted as per the principles enunciated in the Standards Association of Australia AS/NZS 5667:1:1998. In lieu of baseline data or a reference water body, monitoring analytes are compared against the short-term trigger values for general water use stipulated in the Australian and New Zealand Environment and Conservation Council (ANZECC) Guidelines for Fresh and Marine Water Quality.

17.7.4 Ground Water Monitoring

CSA maintain and monitor 26 active standpipe piezometers, 9 vibrating wire piezometers, 20 monitoring bores and 5 production bores at the STSF and an additional 12 standpipe piezometers at the NTSF (excised from CML5 lease). Routine data collection from these sites is used to assess the integrity of the STSF wall, and to determine whether any underground seepage of contaminated water into natural areas and/or aquifers has occurred. Water levels are recorded monthly and water quality samples are taken by the Environment Department when required and/or available.

Groundwater sampling is conducted as per the principles enunciated in the Standards Association of Australia AS/NZS 5667:1:1998. Baseline groundwater quality data has not been recorded and is difficult to determine given the long history of tailings deposition and uncertainty regarding groundwater flow direction. CSA have commissioned GHD and Golder to conduct independent hydrogeological investigations of the CML5 property. Both studies reported the occurrence of aquifers adjacent geological features from 12m to 75m below the surface. Groundwater resources were described as being generally acidic to neutral, brackish to saline and characterised by high iron and sulphate concentrations unsuitable for use (without intensive processing) outside of industrial and some agricultural purposes.

Underlying fault sequences occurring in the proximity of the STSF pose a potential pathway for fluid migration over time. Contemporary seepage has been minimal and confined to the south-east corner of the STSF. Geochemical work indicates that historic tailings deposited in the STSF were potentially acid-forming (PAF) with elevated concentrations of leachable metals (Cu, Pb, Zn, Cd) and sulphate which may be a source of contamination. Contemporary tailings deposition is generally found to be non-acid forming (NAF) with lower potential to leach metals.

17.8 Social Considerations, Plans, Negotiations and Agreements

17.8.1 Native Title

The CSA mine lies within the traditional lands of the Ngemba/Ngiyampaa People. A Native Title claim by Ngemba, Ngiyampaa, Wangaaypuwan, and Wayilwan claimants was accepted for registration by the National Native Title Tribunal in April 2012 (*NSD38/2019 and NC2012/001*). This claim is relevant to the CSA mine operation in that it intersects exploration and mining tenements held by CMPL or its subsidiaries.

The claim has not yet been fully determined, but as of September 2021, it has been agreed by parties to the Federal Court proceedings that Native Title has been extinguished over some 89% of land parcels within the Native Title claim area, which includes Western Lands Lease areas. Native Title has been definitively extinguished over all land allotments lying within the boundary of CML5, but not the other EL's, and once the Native Title claim has been determined, it is likely that the several parties holding interests in the land (including the State of New South Wales and CMPL or its subsidiaries will enter into an Indigenous Land Use Agreement to guide the future use and management of land and water within the Native Title claim area that covers the EL's.

17.8.2 Community

There is strong community support for the CSA operation and CMPL has a positive working relationship with CSC. This is not unexpected given that the CSA mine is the largest employer in the Cobar region, with over 500 employees and contractors.

CMPL is involved with a number of community projects including:

- assistance with the establishment of regular air services between Sydney and Cobar in 2015
- regular donations to local community initiatives
- scholarships to students entering their final year of university.

Overall, there is strong local and state government support for the continuation of mining within the Cobar region.

17.9 Cultural Heritage

17.9.1 Aboriginal Heritage

Aboriginal people lived within the Cobar region over a long period of time and this would have resulted in the deposition of a variety of evidence of past occupation. In general terms, the region was suitable for Aboriginal occupation at a low density.

Aboriginal cultural heritage is managed through CMPL Environmental Management Standard *EMS 08 Heritage and Cultural Awareness*, which includes protection measures specified in the following plans:

- Exploration Environmental Management Plan (PLN-016); and
- Cultural Heritage and Archaeological Assessment of CML5 – Consultant Report (PLN-032).

A Cultural Heritage Survey conducted by external consultants in 2007 (CEC 2007) did not identify any significant Aboriginal heritage at the CSA Mine.

Notwithstanding, CMPL is committed to maintaining good relationships with the traditional owners of the land (the Ngiyampaa people). Staff undertaking surface exploration activities are provided with information to allow them to recognise Aboriginal heritage sites or artefacts. All locations where surface disturbance or exploration activities are planned e.g., proposed drill sites, roads and tracks, are checked prior to any disturbance activity for potential Aboriginal heritage sites. In accordance with CMPL's *Site Disturbance Permit-Pre-disturbance Baseline Study and Permit* requirements, all disturbance permits include the condition that if any items of cultural heritage significance are found, all work must stop immediately and DECCW consulted to determine if an investigation is required.

CMPL employees and contractors are instructed to notify the presence of sites of potential importance so that they may be further examined, and appropriate actions taken as a result of any findings. Sites are then documented and identified, with the appropriate department notified for confirmation of status and management advice.

Any Aboriginal archaeological finds, artefacts or information concerning Aboriginal sites that are passed on to CMPL are appropriately handled and reported to the NSW OEH within reasonable time of being aware of the location or discovery. No Aboriginal place, object or relic is to be disturbed or damaged without the consent or authorisation.

The *Due Diligence Code of Practice for the Protection of the Aboriginal Objects (DECCW 2010)* is utilised by the CSA Mine in the assessment of new projects and in all exploration activities undertaken on the mining and exploration leases. The code outlines a 'Due Diligence' process to ensure there is no unintended harm to Aboriginal artefacts.

No items of aboriginal cultural heritage occur within the CSA mining disturbance zone.

17.9.2 European Heritage

European mining history dates back to the 1870s when copper was discovered in Cobar. By 1872 a shaft had been sunk at the CSA mine and copper was being extracted.

Heritage items within CML5 are managed according to the relevant legislation and guidelines, namely the *National Parks and Wildlife Act 1974*, the *Heritage Act 1977* and the *Environmental Planning and Assessment Act 1979*. Any heritage assessment required is also conducted in accordance with the *Cobar Local Environmental Plan 2012 (LEP) (CSC 2012)*.

The identified European heritage sites of interest on CML 5 include:

- Mining Quarters – the site of a miner's quarters erected in the 1960's. The site once contained five houses and one swimming pool; these were removed after mine closure in 1998.
- "Eloura" – located 1.5 km from the CSA Mine site. This area shows remnants of old rock gardens and buildings.
- CSA Power House – contains five HSF8 Mirrlees diesel engines, manufactured in 1951 by Mirrlees, Bickerton and Day in Stockport, England.

17.10 Mine Rehabilitation and Closure Costs

It is a statutory requirement in New South Wales for operating mines to implement rehabilitation management plans. Both the plans themselves and forward works described in the plan are legally binding on the approved holder. The rehabilitation plan and the closure objectives and post-closure land uses outlined in the plan are linked to a rehabilitation cost estimate. The rehabilitation cost estimate is used as the basis for the financial assurance which holders are required to lodge with the government.

A rehabilitation cost estimate for CSA mine was prepared in November 2018 and that estimate has been used by CMPL as the basis for a more recent 2021 update of the cost of 'imminent closure', as opposed to progressive rehabilitation over the LOM. CMPL's current estimate of closure costs to rehabilitate the existing disturbance area at CSA mine, if the mine closed today, totals approximately A\$69M. In BDA's opinion, given recent changes in government policy and requirements, this estimate is likely a minimum figure for the closure and rehabilitation costs. However, BDA notes that in practice, progressive rehabilitation is typically undertaken over the life of the mine, significantly reducing the final closure cost; MAC's estimate of final closure cost based on progressive rehabilitation is A\$37M.

Rehabilitation activities at CSA Mine is conducted in accordance with the following documents:

- Rehabilitation and Environment Management Plan (REMP 2012);
- CSA Mine South Tailings Storage Facility – Closure and Rehabilitation Plan (2010); and
- the MOP.

The rehabilitation objectives for the primary domains of CSA are summarized and presented in Table 17.1. A plan-view of the final outline of the mine, associated surface facilities and rehabilitation areas is shown in Figure 22.

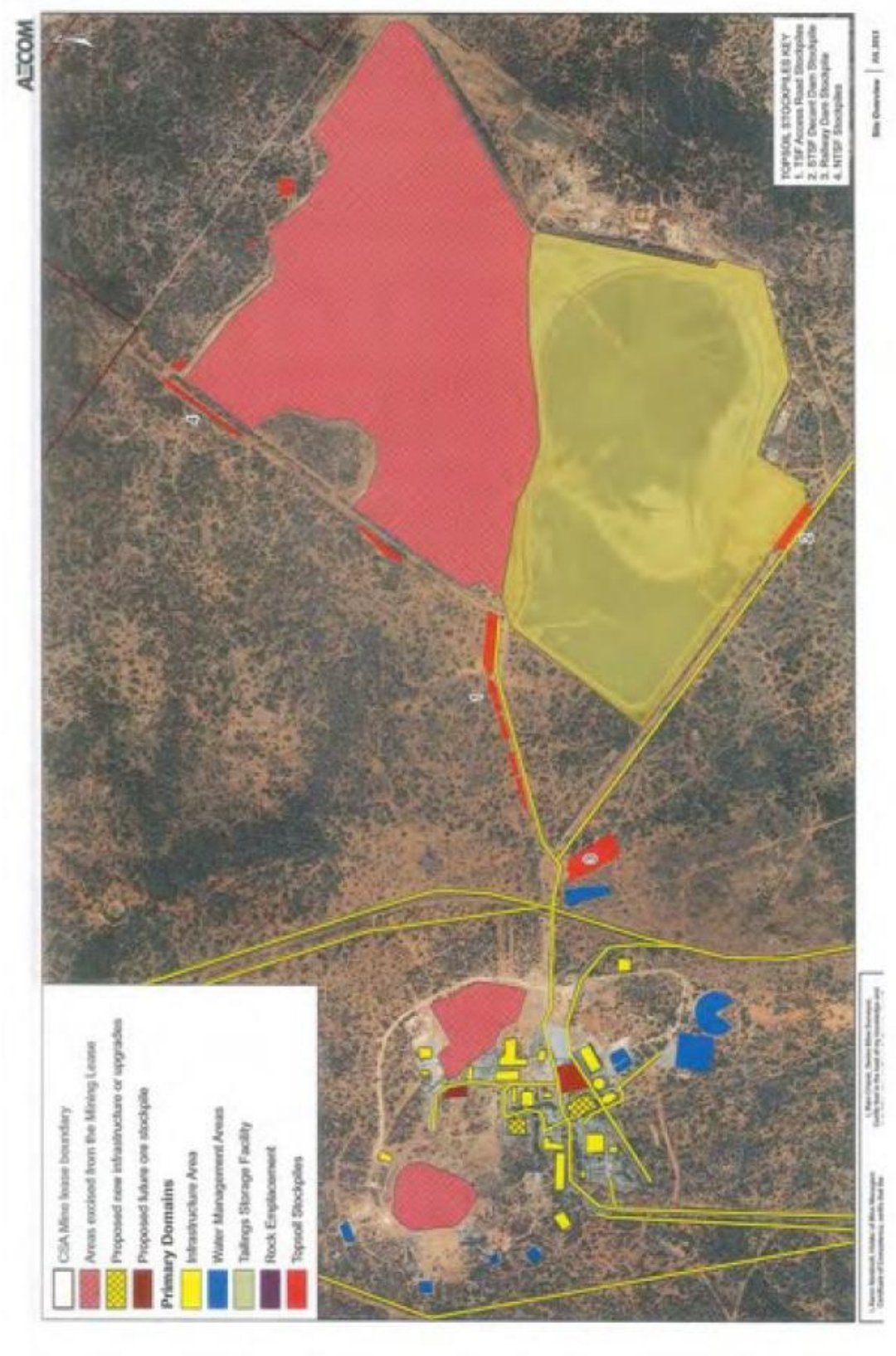
A long section of the final mine outline and associated underground workings is shown in Figure 16.

Table 17.1

Primary Domains Rehabilitation Objectives

Domain	Rehabilitation Objective
Infrastructure Area	Mining infrastructure within the mining lease area will be removed if no longer required as part of the approved final land use, and the affected lands rehabilitated.
Water Management Area	Some infrastructure will be retained on site as tourist attractions and for heritage uses, such as the headframe and decline. The drainage pattern of the final landform will be designed to integrate with the surrounding catchments and will be revegetated to achieve long term stability and erosion control and to harmonize with more general rehabilitation and revegetation strategies. All Water Management Areas are planned to be retained on site until at least 3 – 5 years post mine closure to collect any sediment that may run off the disturbed areas of the mine prior to achieving a successful revegetation cover. Once the closure criteria for runoff water quality have been met, these facilities may be removed if required.
Tailings Storage Facility	Rehabilitated TSFs will be integrated into the final landscape and revegetated to meet the following objectives: <ul style="list-style-type: none"> - Tidy and safe with public safety risks reduced to acceptable levels; - Stable and resistant to erosion; - Meets agreed criteria for land or water contamination; and - Suitable for the agreed post-mining land use.
Rock Emplacement	Areas of rock emplacement at STSF will be rehabilitated and integrated into the final landscape and revegetation strategy.
Topsoil Stockpile	Areas of topsoil stockpiles will be rehabilitated and integrated into the final landscape and revegetation strategy.
Exploration Site	All exploration sites will be rehabilitated to a stable and permanent form so that: <ul style="list-style-type: none"> - There is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion; - The state of the land is compatible with the surrounding land and land use requirements; - That if landforms, soils, hydrology and native vegetation have been removed or damaged, the original species must be re-established with close reference to the initial baseline survey. If the original vegetation was not native, any re-established vegetation must be appropriate to the area and at an acceptable density; - The land does not pose a threat to public safety.

Figure 22 - Plan of Final Mine Layout and Rehabilitation



17.10.1 STSF Closure

The operation of the STSF is undertaken in accordance with the *STSF Operating Manual (2015)*, while its rehabilitation will be as per the *STSF Closure and Rehabilitation Plan (2010)*. Documentation is updated as required and governed by operational strategy.

Periodic analysis of the tailings is undertaken to confirm the geochemical characteristics of this material. Rehabilitation trials for capping design will be implemented during the MOP and throughout the life of the mine.

The primary objectives of the closure strategy for the TSF to control rainfall runoff and limit seepage from the facility, with the following outcomes:

- A progressive reduction in the phreatic surface within the TSF;
- Construction of a drainage system enabling incident rainfall to shed from the landform with limited consequential erosion; and
- Establishment of a functional ecosystem with the potential to support a self-sustaining vegetative cover on the outer slopes.

17.10.2 Rehabilitation Monitoring

In September 2013 NSW Department of Trade & Investment released a revised version of the *ESG3 MOP Mining Operations Plan (MOP) Guidelines* which detailed a new process for monitoring and managing progression towards successful rehabilitation outcomes which is quantified by completion criteria. Successful rehabilitation of a mine site is conceptually described in terms of logical steps or phases which can be made applicable to each of the similar land management units or domains within the mine site.

Since its inception, the CSA monitoring program has adopted this process of comparing rehabilitation areas against reference sites in logical successional phases and has adapted the methodology with the various revisions of the NSW Department of Trade & Investment regulatory guidelines.

The CSA Mine aims to create stable rehabilitated landforms in areas disturbed by mining. The final landforms would be constructed to be stable in the long-term and integrate with the surrounding landscape. The new landforms will be revegetated with selected species of native and/or endemic vegetation that are both suitable to the physiographic and hydrological features of each landform.

As the current proposed long-term land use is rangeland grazing, local grazing areas situated on the lower slopes which contain a sparse to moderate cover of endemic trees and shrubs are used as a reference point for rehabilitation targets of the current rehabilitation areas.

17.11 Qualified Person's Opinion on the Adequacy of Current Plans to Address Any Issues

The QP considers that CMPL have comprehensive permits, approvals, tenements and environmental management plans and systems in place. CMPL advise that all permits and approvals are in place and that its tenements are in good standing to maintain current operations.

18 CAPITAL AND OPERATING COSTS

18.1 Capital Costs

This section contains forward-looking information related to capital and operating cost estimates for the Project.

The material factors that could cause actual results to differ materially from the conclusions, estimates, designs, forecasts or projections in the forward-looking information include any significant differences from one or more of the material factors or assumptions that were set forth in this section including prevailing economic conditions continue such that unit costs are as estimated in US\$ dollar terms, projected labour and equipment productivity levels and that contingency is sufficient to account for changes in material factors or assumptions.

All capital and operating costs have been estimated in Australian dollars (A\$) as this is the currency most costs are incurred in. Costs are subsequently and converted and expressed here in United States dollars (US\$) at a flat exchange rate of A\$1= US\$0.72.

18.1.1 Introduction

Capital cost estimates were assembled based primarily on information provided by MAC. All capital costs are expressed in Q4 2022 U.S. dollars.

The principal capital works for the CSA mine for which capital costs have been estimated generally comprise:

- underground mining capital works including upgrading of the substation upgrade, maintenance of fixed and mobile plant, exploration and resource drilling and replacement of major equipment
- upgrading the grinding circuit in the concentrator and on-going general sustaining capital for the concentrator
- capitalised underground development
- rehabilitation of project facilities at the end of the mine life.

The forecast costs for capital works over the LOM has informed the capital cost estimate summarised in Table Table 18.1.

Table 18.1

CSA Capital Cost Summary

Capital Category		Total	2023	2024	2025	2026	2027	2028	2029	2030
Mining Capital										
Ventilation & Cooling	US\$m	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Maintenance - Mobile Plant	US\$m	10.9	2.4	2.4	2.1	2.3	1.6	0.0	0.0	0.0
Maintenance - Fixed Plant / Electrical	US\$m	11.0	2.8	2.6	1.9	1.5	1.6	0.6	0.0	0.0
Geological drilling	US\$m	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TSF, Misc	US\$m	18.2	3.3	9.3	1.5	2.1	1.6	0.6	0.0	0.0
Haul Trucks	US\$m	5.8	3.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Processing Capital	US\$m	4.1	2.7	0.6	0.4	0.0	0.5	0.0	0.0	0.0
Capitlized Development (total)	US\$m	82.9	28.1	18.3	15.5	8.9	7.5	4.6	0.0	0.0
Rehabilitation costs	US\$m	26.8	0.0	0.0	0.0	0.0	0.2	0.0	0.0	26.5
Total Capex	US\$m	163.88	46.32	36.12	21.33	14.81	13.06	5.75	0.0	26.50

The capital costs were estimated by CMPL as part of studies into the necessity for, and the feasibility of the upgrade works and as part of the CMPL LOM planning. LOM planning is used for directional decision making in order to direct study efforts only.

Capitalised Maintenance Costs for mobile and fixed plant have been estimated from historical maintenance costs.

The estimates of Geological Drilling costs have been determined from the metres of drilling planned for 2023, applied to historical costs per metre.

Other Costs, which are included in the cost model as part of the underground capital total include costs for site services and the upgrading of processing facilities. The major components of Other Costs comprise the costs for:

- mining projects including underground paste fill reticulation, a diamond drilling workshop, subsidence area fencing, TSF capacity increases, TSF compliance works, and refuge chambers
- site services including housing upgrades and IT upgrades

- process plant replacement and upgrade works including flotation circuit modifications, concentrate train container replacement, process plant general structural repairs, rail line maintenance, surface services upgrades and general site maintenance and upgrades.

The estimates of these Other Costs were determined by MAC on the basis of quotations from prospective suppliers and contractors and the experience and expertise of MAC management. BDA considers the estimates to be appropriate for the MAC plan.

The Major Equipment capital costs are the costs for replacing equipment which has reached the end of its useful operating life. The numbers of each type of equipment have been taken from the mining equipment schedules described in Section 13 – Mining Methods. Unit costs for equipment items have been determined from historical costs and current budget prices from equipment suppliers.

Processing Sustaining Capital comprises the costs of the grinding circuit upgrade described in Section 14 - Processing. The costs of the grinding circuit upgrade were estimated at A\$16.1M in a feasibility study carried out in July 2020 by Ausenco Pty Ltd (“Ausenco”), a Perth-based engineering consultancy firm with extensive experience and expertise in similar works in Western Australia. The basis of the Ausenco estimate is feasibility study engineering carried out by Ausenco, budget quotations for the supply and installation of mechanical and electrical equipment from prospective suppliers and contractors and for the civil and structural works, and benchmark unit costs from the Ausenco database. The estimate includes a 10% contingency. One mill has been installed and is operating, the second mill will be replaced in 2023.

Capitalised Development costs have been estimated by MAC based on historical costs and performance.

The MAC Rehabilitation Costs include the costs of rehabilitating the TSFs and, as noted in Section 18.1.8 of this report, are based on the estimate of costs determined in a rehabilitation closure review conducted in 2018 which was based on a closure cover of 200mm of rock and 200mm of topsoil.

18.1.2 Basis of Estimate

18.1.3 Maintenance of Fixed and Mobile plant

The Fixed and Mobile Plant Maintenance capital programme is being carried out in accordance with the maintenance plans for the mining and processing facilities. The status of the maintenance is reported to be satisfactory as described in Section 13 and Section 14.

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18.1.4 Geological Drilling

Geological Drilling for resource definition is being carried out by CMPL in accordance with the CSA geological work plan and budget.

18.1.5 Replacement of Major Equipment

Major Equipment Replacement is being carried out as equipment items reach the end of their useful life. As discussed in Section 11, CSA is midway through replacement of the underground truck and loader fleet.

18.1.6 Process Sustaining Capital

The concentrator grinding circuit upgrade commenced in 2020. The CMPL October 2021 management presentation stated that project costs were forecast to meet budget but that the project schedule was experiencing some delays and is now forecast to be complete by mid 2023.

18.1.7 Capitalised Underground Development

The capitalised underground development is proceeding as part of overall underground development in accordance with the mine plan as described in Section 11 - Mining, Geotechnical and Ventilation.

18.1.8 Rehabilitation of Project Facilities

No action has been taken in relation to the rehabilitation of project facilities apart from on-going rehabilitation of waste dumps and TSF facilities which form part of normal operations. Rehabilitation of mining, processing and infrastructure facilities will be undertaken at the end of the mine life.

18.1.9 Accuracy and Contingency

Item 1302 of Regulation S-K sets out the requirements for capital cost estimates in initial assessments, preliminary feasibility studies and feasibility studies. In this case, where the project has been in operation for many years and the capital expenditure is for upgrading existing facilities and for sustaining capital, BDA considers that the appropriate requirements are those for feasibility studies. These requirements are that a feasibility study must, at a minimum, have an accuracy level of approximately $\pm 15\%$ and a contingency range not exceeding 10%.

18.2 Operating Costs

18.2.1 Introduction

CMPL moved from using a Pronto accounting system to SAP GmbH ("SAP") business management software during 2021. This change also corresponded with changes to the CSA organisational structure resulting in some changes in the cost reporting, specifically moving some maintenance costs between the mining and processing areas. Fixed plant maintenance costs are attributed to the Processing department as the fixed plant mechanical and electrical departments reside within this department.

Table 18.2 provides a site operating cost summary showing actual CSA operating costs for 2020 and 2021 and forecast operating cost estimates proposed by MAC for the following four years. It is worth noting that 2020 was a site record with 1.22Mt milled; 1.07Mt were milled in 2021.

18.3 Operating Costs

18.3.1 Introduction

CMPL moved from using a Pronto accounting system to SAP GmbH (“SAP”) business management software during 2021. This change also corresponded with changes to the CSA organisational structure resulting in some changes in the cost reporting, specifically moving some maintenance costs between the mining and processing areas. Fixed plant maintenance costs are attributed to the Processing department as the fixed plant mechanical and electrical departments reside within this department.

Table 18.2 provides a site operating cost summary showing actual CSA operating costs for 2022 and forecast operating cost estimates proposed by MAC for the 6.5 years of Reserve mine life.

Further breakdowns of CSA Mining, Processing and G&A operating costs are also provided in Table 18.2, Table 18.3 and Table 18.4, respectively.

Table 18.2

Site Operating Cost Summary

Description	Unit	2022A	2023F	2024F	2025F	2026F	2027F	2027F	2027F
Costs									
Mining	US\$M	78.1	78.8	87.5	89.1	94.8	94.4	102.6	44.8
Processing	US\$M	23.5	16.9	17.2	16.9	17.0	17.1	17.2	10.4
General & Admin	US\$M	28.9	17.0	17.0	17.0	17.0	17.0	17.0	7.6
<i>Total Site Opex</i>	<i>US\$M</i>	<i>130.5</i>	<i>112.7</i>	<i>121.7</i>	<i>123.1</i>	<i>128.9</i>	<i>128.5</i>	<i>136.8</i>	<i>62.8</i>
Unit Costs									
Total Opex	US\$/t ore	126.37	93.32	98.41	101.92	104.62	103.43	109.58	129.44

Note: “Opex” = Operating Expenditure; “A” = actual operating costs from the CSA operation. “F” = forecast operating cost developed by MAC.
AU\$:US\$ = 0.72

Table 18.2

Breakdown of Mining Operating Costs

Description	Unit	Total	2023	2024	2025	2026	2027	2028	2029
Salaries (employees)	US\$/t Ore	34.4	34.4	33.3	34.8	35.2	33.8	33.6	38.1
Salaries & related costs (contractors)	US\$/t Ore	6.9	7.1	6.9	6.7	6.7	6.4	7.1	7.4
Power & water	US\$/t Ore	12.0	12.3	11.8	12.2	12.1	11.4	11.6	13.2
Production purchase costs	US\$/t Ore	15.6	16.9	15.1	15.8	15.8	14.1	16.2	15.0
Administrative / office expenses	US\$/t Ore	1.7	1.9	1.7	1.7	1.7	1.4	1.7	1.4
<i>Less Capitalized Development</i>	<i>US\$/t Ore</i>	<i>(8.7)</i>	<i>(19.1)</i>	<i>(11.9)</i>	<i>(10.6)</i>	<i>(6.1)</i>	<i>(5.0)</i>	<i>(3.0)</i>	-
Mining Opex	US\$/t Ore	75.3	65.3	70.7	73.8	77.0	75.9	82.2	92.2

Table 18.3

Breakdown of Processing Operating Costs

Description	Unit	Total	2023	2024	2025	2026	2027	2028	2029
Salaries (employees)	US\$/t Milled	5.5	5.1	5.0	5.1	5.0	5.0	4.9	12.5
Salaries & related costs (contractors)	US\$/t Milled	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Power & water	US\$/t Milled	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.3
Production purchase costs	US\$/t Milled	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.3
Administrative / office expenses	US\$/t Milled	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Processing Opex	US\$/t Milled	14.4	14.0	13.9	14.0	13.8	13.8	13.8	21.5

Table 18.4

Breakdown of G&A Operating Costs

Description	Unit	Total	2023	2024	2025	2026	2027	2028	2029
Salaries (employees)	US\$/t Milled	7.9	8.0	7.8	8.0	7.8	7.8	7.7	8.9
Salaries & related costs (contractors)	US\$/t Milled	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Power & water	US\$/t Milled	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Production purchase costs	US\$/t Milled	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Administrative / office expenses	US\$/t Milled	4.8	4.9	4.8	4.9	4.8	4.8	4.7	5.4
G&A Opex	US\$/t Milled	14.0	14.1	13.8	14.1	13.8	13.7	13.6	15.7

The MAC forecast operating costs are similar to the CMPL actuals from 2022. The split between capitalized development and underground mining cost is somewhat arbitrary and MAC typically forecasts total site costs for mining, processing, G+A and capitalized development combined (reported in A\$) to determine the appropriate cost estimates.

The actual costs for 2022 for these cost centres was A\$213m (with approximately A\$5.5m of non cash items) and the MAC forecast costs for 2023 on the same basis are A\$212m. The G+A costs saw a marked increase in 2022 related to transactional costs and Glencore corporate audit requirements which are not expected to continue.

MAC is forecasting a small reduction in General and Administration costs with the removal of Glencore overhead charges.

BDA notes that CMPL identified productivity improvement some two years ago, prior to the peak of the Covid- 19 pandemic, but appears to have had only modest success in achieving performance improvement or cost savings. Nevertheless, BDA recognises that there is opportunity for productivity improvements underground.

The CSA mine has a relatively high proportion of fixed costs; any performance improvement will lead to reduced unit operating costs. Figure 16 (lower) shows the breakdown of LOM operating costs with mining responsible for around 73% of site cash costs and 63% of total cash costs. Of the site mining costs, 62% relates to labour and contractor costs.

Mine operating costs in Australia have seen substantial increases over the last two years due to Covid-19 induced labour shortages and material and logistic cost increases. While the Covid-19 influences are showing some signs of abating, skilled labour shortages remain acute at all mine sites, pushing up costs and impacting productivity.

The MAC ore mining rate is forecast to increase from 2022 onwards to around 1.2Mtpa, with the unit ore mining cost decreasing from around US\$75/t ore to around US\$65/t ore then back to over US\$90/t by 2029, averaging US\$75/t over the LOM. The slight reduction in unit rates in 2023 is a function of more costs being allocated to capitalized development, with a total of US\$19/t of ore allocated to this in 2023 compared to a LOM average of US\$8/t. The projected costs are similar to what has been achieved in the recent past and the reserve LOM only mines another 4 levels vertically and incorporates a higher percentage of ore from shallower levels than mined in 2022.

The process operating costs are reasonably well documented in the CSA monthly reports. BDA notes that the 2020 tonnes milled figure was a site record, which would contribute to a lower unit cost per tonne milled given the fixed cost component. MAC is forecasting unit processing costs to be around US\$14/t milled, which appears achievable if the mill throughput rates can be achieved.

The MAC estimate assumes some modest savings in G&A costs compared with 2022 and the reduction of CMPL off-site corporate overhead charges. Overall, the unit costs appear achievable provided the planned efficiencies are implemented and the mine and mill production forecasts can be achieved.

18.3.2 Realisation Costs and Offsite Costs

Realisation and offsite costs comprise rail freight to Newcastle Port, concentrate storage at Newcastle, ship loading costs, sea freight, Treatment Charges and Refining Charges ("TCs and RCs").

MAC has assumed US\$40/wmt for sea freight handling for the LOM based on Feb 2023 quotes plus an additional US\$31/wmt for other freight and handling costs.

18.3.3 Treatment and Refining Charges

BDA's review of CSA historical data suggests payment terms reasonably consistent with other copper concentrate offtake agreements including penalty terms, insurance and force majeure. Benchmark TCs and RCs typically vary year on year with the state of the copper concentrate market, but in 2021 the Benchmark TC was US\$65/t and the RC was US\$0.065/per payable pound of Cu. TCs and RCs have been lower than this in recent past and have trended higher as the concentrate market returns to a more normal state with the potential for benchmark terms to continue to trend higher.

For the reserve estimation and financial model a LOM TC/RC of US\$75/7.5c has been assumed.

18.3.4 Basis of Estimate

Capital and operating costs were developed based on historical cost performance and first principal calculations based on current commodity costs, labour rates and equipment costs. The costs are provided for each major cost centre including mining, processing, G&A, off site costs, major capital works and fleet replacement and closure costs.

18.4 Qualified Person's Opinion on the Adequacy of Capital and Operating Costs

The QP considers the capital and operating cost forecasts to be at a Definitive Feasibility Study level of confidence and accuracy, or better. Capital contingency costs in the order of 10% have been included. The stated estimate accuracy of $\pm 15\%$ appears conservative, with costs history in recent years conforming close to budget. Operating cost forecasts have relied heavier on actual operating cost knowledge. The QP considers that the stated accuracy and contingency ranges meet Definitive Feasibility Study standards as required under SK 1300.

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19 ECONOMIC ANALYSIS

19.1 Forward-looking Information Caution

This section contains forward-looking information related to economic analysis for the Project. The material factors that could cause actual results to differ materially from the conclusions, estimates, designs, forecasts or projections in the forward-looking information include any significant differences from one or more of the material factors or assumptions that were set forth in this sub-section including estimated capital and operating costs, project schedule and approvals timing, availability of funding, projected commodities markets and prices.

All costs, prices, and monetary values are in Q4 2022 United States Dollars (US\$).

19.2 Methodology

19.3 Principal Assumptions

Production:

The schedule for the CSA Mine with a 6.5 year of mine life entails approximately:

- 7.9Mt of ore
- 1.7Mt of waste
- 9.6Mt of total material mined

19.3.1 Commodity Pricing

The commodities prices considered are as shown below:

- Copper Price - US\$7,400/t (US\$3.18/lb) - The Company elected to take a conservative approach to the economic evaluation and has applied a 9% discount to the long-term, real, Broker Consensus copper price outlined in Section 16.3.
- Silver Price – US\$21.40/toz - The Company elected to take a conservative approach to the economic evaluation and has applied a 2% discount to the long-term, real, Broker Consensus copper price outlined in Section 16.3.

19.3.2 Discount Rate

A discount rate of 8% was used in this economic analysis. This is considered reasonable, though somewhat conservative, for CSA considering it is an operating mine with a long history, cashflow producing and thorough understanding of the costs and risks associated with the operation.

19.3.3 Exchange Rate

Costs are predominately incurred in A\$ and have been converted to US\$ at a flat rate of 0.72. The discounted cashflow basis is on a US\$ basis.

19.4 Results of Economic Analysis

As shown in Table 18.5, the following parameters were estimated:

- **Total Revenue:** The total sales revenue of US\$2.1 billion includes copper and silver sales.
- **Total Operating Cost:** Total operating cost is estimated to be US\$1.2 billion including all off site, realization and corporate costs
- **Rehabilitation Cost:** A total of US\$26.7 million is allocated in the year following completion of mining in line with the current government closure bond.
- **EBITDA:** The EBITDA is estimated to be US\$887 million
- **Taxes:** Tax rate of 30% on taxable income plus a 4% State government royalty and a 1.5% copper net smelter royalty payable to GIAG
- **Capital Expenditures:** The total capital expenditure is US\$137 million.

- **Net Present Value:** The after tax NPV is US\$566 million at a discount rate of 8%.

Table 19.1

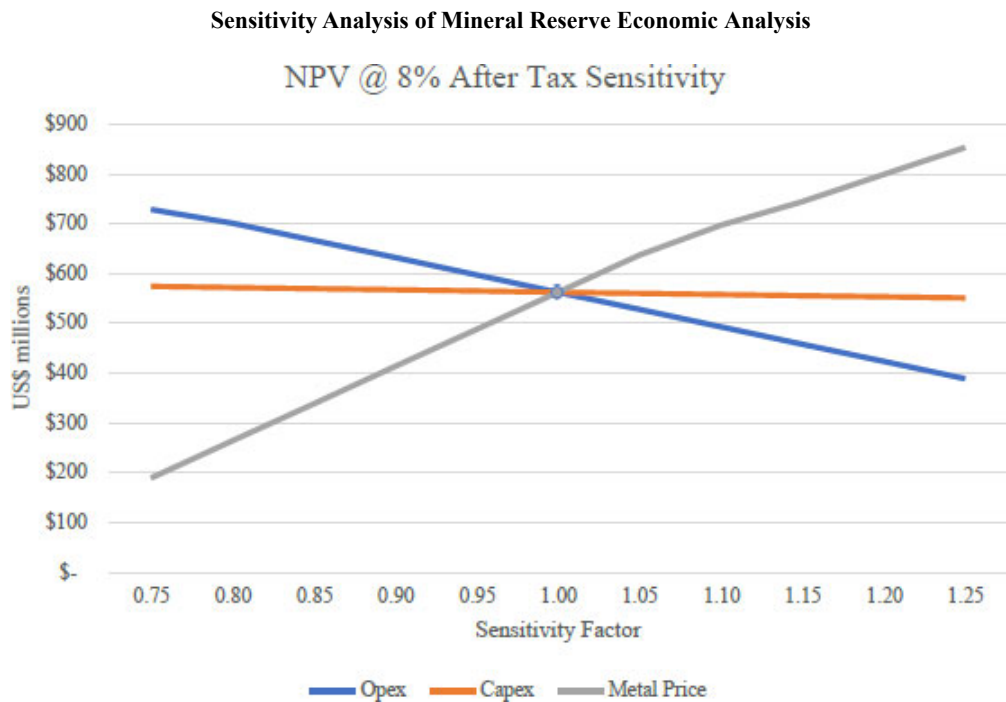
Economic Analysis of CSA Reserve LOM

Description	Unit	Total/Avg	2023	2024	2025	2026	2027	2028	2029	2030
<i>Mine Physicals</i>										
Ore Mined	kt	7,859.4	1,207.3	1,236.3	1,207.3	1,231.7	1,242.6	1,248.7	485.5	-
Waste mined	kt	1,711.9	265.2	300.8	263.9	219.9	274.5	276.3	111.3	-
Total material mined	kt	9,571.3	1,472.5	1,537.2	1,471.2	1,451.6	1,517.0	1,525.0	596.8	-
Cu Grade	%	3.7%	3.7%	3.3%	3.9%	3.9%	3.8%	3.7%	3.5%	
Ag Grade	g/t	16.0	18.7	17.5	18.2	16.4	13.5	13.4	12.1	
Cu Recovery	%	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	
Ag Recovery	%	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	
Recovered Cu	kt	282.3	43.0	39.7	45.4	46.7	45.9	45.3	16.4	
Recovered Ag	koz	3,233.4	580.5	555.7	564.3	520.5	430.7	430.5	151.1	
Cu Price	US\$/t	7,400.0	7,400.0	7,400.0	7,400.0	7,400.0	7,400.0	7,400.0	7,400.0	
Ag Price	US\$/toz	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	
<i>Cash Flow Analysis</i>										
Cu gross revenue	US\$m	2,007.0	305.3	281.8	322.4	331.6	326.8	322.6	116.4	-
Ag gross revenue	US\$m	63.1	11.3	10.9	11.0	10.2	8.4	8.4	3.0	-
Gross Revenue (total)	US\$m	2,070.1	316.7	292.7	333.5	341.8	335.2	331.0	119.3	-
(-) Mining costs	US\$m	(591.1)	(78.8)	(87.5)	(89.1)	(94.8)	(94.4)	(102.6)	(43.9)	-
(-) Processing costs	US\$m	(112.8)	(16.9)	(17.2)	(16.9)	(17.0)	(17.1)	(17.2)	(10.4)	-
(-) Minesite G&A	US\$m	(109.7)	(17.0)	(17.0)	(17.0)	(17.0)	(17.0)	(17.0)	(7.6)	-
(-) Freight	US\$m	(48.5)	(7.5)	(7.0)	(8.0)	(8.3)	(7.5)	(7.5)	(2.7)	-
(-) Realization charge	US\$m	(37.0)	(5.7)	(5.3)	(6.1)	(6.4)	(5.7)	(5.7)	(2.0)	-
(-) TC/RCs	US\$m	(118.6)	(19.9)	(18.5)	(21.1)	(18.5)	(17.2)	(17.2)	(6.2)	-
(-) Royalties	US\$m	(85.8)	(13.3)	(12.0)	(14.0)	(14.5)	(14.2)	(14.0)	(3.8)	-
(-) Corporate Costs	US\$m	(79.2)	(34.7)	(9.7)	(9.7)	(9.7)	(7.7)	(3.9)	(3.9)	-
EBITDA	US\$m	887.4	122.9	118.4	151.6	155.7	154.4	145.8	38.7	-
(-) Total Cash Financing Cost	US\$m	(183.6)	(36.4)	(33.4)	(33.0)	(32.3)	(19.6)	(20.1)	(7.8)	(1.0)
(-) Taxes (cash)	US\$m	-	-	-	-	-	-	-	-	-
(-) CAPEX (sustaining)	US\$m	(54.2)	(18.2)	(17.8)	(5.8)	(5.9)	(5.3)	(1.2)	-	-
(-) Capitalized development	US\$m	(82.9)	(28.1)	(18.3)	(15.5)	(8.9)	(7.5)	(4.6)	-	-
(-) Rehabilitation costs	US\$m	(26.8)	(0.0)	-	-	-	(0.2)	(0.0)	-	(26.5)
(-) NWC change	US\$m	2.1	5.8	0.6	0.2	(0.8)	3.1	0.8	(7.6)	-
Unlevered Free Cash flow	US\$m	725.6	82.4	82.9	130.5	140.1	144.5	140.8	31.0	(26.5)

19.5 Sensitivity Analysis

The sensitivity analysis was carried out by independently varying the copper price, operating cost, and capital cost. The results of the sensitivity analysis are shown in Figure 22

Figure 22



As seen in the above figure, the project NPV is most sensitive to copper price and least sensitive to capital. This is to be expected for a mature, well-established project with much of its infrastructure already in place and no significantly large projects currently planned during the mine life discussed in this report.

19.6 Qualified Person’s Opinion on the Economic Analysis

Given the long operating history of the CSA Mine, the QP considers the accuracy and contingency of cost estimates to be well within a Definitive Feasibility Study (DFS) standard and sufficient for the economic analysis supporting the Mineral Reserve estimate for the CSA Mine.

20 ADJACENT PROPERTIES

The CSA mine is wholly contained within CML5, which is surrounded by a network of exploration licences also wholly owned by CMPL. For all practical purposes, the CSA mine has no adjacent properties that are likely to have any influence on its operations. In the broader region, other resource companies hold exploration tenements, most are considered to be at an early stage of evaluation.

21 OTHER RELEVANT DATA AND INFORMATION

The QP considers that all relevant data and information is contained within the body of this Technical Report Summary.

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22 INTERPRETATION AND CONCLUSIONS

22.1 Conclusion

The purpose of this Technical Report is to report the Mineral Reserve Estimate and Mineral Resource Estimate for CSA, both of which have an effective date of December 31st, 2022 and, under the opinion of the QP's, are reported here in accordance with the SEC S-K 1300 regulations.

The CSA mine is located in western New South Wales near the town of Cobar. The mine has a well-established production history. The mining tenements provide appropriate coverage for the current operations and include targets for potential extensions of mineralisation and mine life. The statutory development approvals and licences are well established and have been relied upon for many years and are unlikely to present any significant challenges for the life of the Reserve.

BDA has not identified any material issues in respect of environmental approvals, compliance or the reporting requirements for the CSA mine. In BDA's opinion, CMPL has identified potential environmental impacts likely to be associated with the CSA mine operations and has in-place appropriate mitigative design and operational.

CSA is an established operation with a relatively long mining history. The mine has had a number of owners and operators over the years, with Glencore having operated the mine for the last 20 years. In this time additional lodes have been discovered, mostly at depth. Significant resources remain with the major lodes still open at depth.

After many years of mining, drilling, and surface and underground mapping, the geology and mineralisation of the CSA mine and of the surrounding Cobar Basin are well understood. The CSA lodes are all steeply dipping with relatively short strike lengths and widths, but with a significant down dip extent. Both of the two principal current systems (QTSN and QTSC) are blind orebodies occurring from depths of 600m and 1,200m respectively. Both remain open at depth with the deepest intersections at around 2,200m below surface.

BDA considers there is significant potential to extend the estimated resources within the CSA mineralized lodes, principally at depth, but also with some shallower mineralization. In recent years resource and reserve additions have more than kept pace with depletion through mining.

The CSA mine is a complex operation due to the various mining methods, the number of active stopes, the number of work areas, the depth, geotechnical challenges, backfill challenges and ventilation/cooling challenges. As the CSA team understand, it is important to have contingency plans, so that should an adverse event occur, alternate access and working areas are available and any loss in production can be countered. The dominance of the QTS North orebody creates some concentration risk, and ideally resources in the other mineralised systems should be worked up to provide contingent ore sources. One of the critical aspects to achieving these objectives is to prioritise and increase development.

CSA underground mining production is the primary driver to annual concentrate sales, due to the excess capacity available in downstream infrastructure. With approximately 2.3Mtpa material hoisting capacity in the shafts and 1.4Mtpa concentrate processing capacity in the processing plant. Considerable effort in recent years and the recent capital expenditure program was aimed at maximising ore production as the mine gets deeper.

BDA considers the metallurgical performance at CSA to be good with high copper recoveries, reasonable copper concentrate grades and payable silver grades. Based on the consistency of ore feed quality and metallurgy over the years there is no reason to consider this performance will not be maintained. There is no suggestion that future ore variability will necessitate any blending.

The CSA mine is well established with all the supporting infrastructure required to support current operations. Both the State grid power supply and Cobar Board water supply are in the process of being upgraded to support future operations.

The Southern Tailings Storage Facility (STSF) has an average deposition rate is 55kt per month. At the current rate, based on the latest Lift 9 embankment raise, the STSF has capacity to store tailings up to December 2024. The next embankment raise, Lift 10, will have sufficient storage capacity for the Reserve life of mine. CSA continues to plan for future mine life extensions beyond the current Reserves as good practice and is conducting initial engineering of Lift 11.

CSA mine operations are mining-centred and is currently planned at 1.2-1.3Mt of ore per annum (1.2-1.3Mtpa) for the Reserve estimation process, which the QP considers to be readily achievable with the mobile, fixed and human resources currently maintained by CSA operational team.

The copper market in which CMPL operates is a deep, liquid market where copper is traded globally in both cathode and concentrate formats. CMPL operates within the global copper industry and faces competition from other copper producers for its main product.

The concentrate produced at CSA is a high-quality product, with no deleterious elements above penalty levels and is highly sought after for blending with other concentrates.

Under MAC's ownership, the Offtake Agreement for the CSA mine commits 100% of the produced concentrate for the life of mine to GIAG, as the sole customer. The offtake terms are referenced to the annual Benchmark terms set by the industry and published annually and are therefore considered market competitive.

CMPL's 2021 estimate of closure costs, to rehabilitate the existing disturbance area at CSA mine, totals approximately A\$69M should the mine close today.

The Mineral Resource QP considers that the Mineral Resource estimation for the CSA mine has been carried out professionally and is consistent with industry standards. The drilling, assaying, and density data is considered to provide an acceptable basis for resource estimation, and the geological modelling provides an appropriate framework. Annual reconciliations confirm that the resource estimates provide a reasonable guide to the in-situ tonnes and grade.

Similarly, the Mineral Reserve QP considers that the Mineral Reserve estimate for CSA mine is appropriate estimation of the economically viable Mineral Reserve and has been prepared using industry accepted practices. The LOM forecasts based on the Mineral Reserves are considered to provide a conservative estimate of the likely life of mine, given the historical experience of regular reserve replacement and the known down-dip extensions of the mineralised lodes.

As part of the estimation of Mineral Reserve, a mining schedule was developed using industry accepted methodologies and an economic analysis was performed to verify the economic viability of the Mineral Reserve and the associated Life of Mine.

The economic analysis on CSA was conducted based on a mine design and schedule of the Reserve copper ore. A Discounted Cashflow ("DCF") model was developed for this Reserve Case using copper and silver product prices of US\$7,400/t and US\$21.7/toz, respectively. The Company elected to take a conservative approach to the economic evaluation and has applied a 9% discount to the long-term, real, Broker Consensus copper price outlined in Section 16.3.

The discounted cashflow establishes that the Mineral Reserves estimate provided in this report are economically viable. The base case NPV is estimated to be US\$566M. The Net Present Value for this study is most sensitive to copper price.

BDA considers that operating and capital costs, the methodology and data used for the preparation of the estimates would be expected to result in estimates with an accuracy level of around $\pm 15\%$ and the estimates for the major capital works include contingency allowances of around 10%.

22.2 Risks

When compared with many industrial and commercial operations, mining is a relatively high-risk business. Each orebody is unique. The nature of the orebody, the occurrence, quality, grade and mineralogy of the ore, and its behaviour during mining and processing can never be wholly predicted. Estimations of the tonnes and grade of a deposit are not precise calculations but are based on interpretation and on samples from drilling which, even at close drill hole spacing, remain very small samples of the whole orebody.

Mining is subject to geotechnical risks, and in the case of deep underground mines, temperature and ventilation issues. Process throughput and recoveries are subject to consistency of ore types and mineralogy. Estimations of project capital and operating costs are rarely more accurate than $\pm 10\text{--}15\%$. Mining project revenues are subject to variations in commodity prices and exchange rates.

In reviewing the CSA mine operation, BDA has considered areas where there is perceived technical risk to the operation, particularly where the risk component could materially impact the projected cashflows. However, BDA notes that in an established operation such as CSA, many of the uncertainties and risks are moderated by the long and relatively consistent history of operations and production.

Risk has been classified from low through to high. In Section 14.3 BDA has considered factors which may ameliorate some of the project risks.

Risk Component	Comments
Resources/Reserves	<p>The current Mineral Resources are generally well defined based on diamond drilling and underground mapping and sampling. The geology, geological controls and the lodes and mineralised systems are well understood. There is a long history of mining at CSA and systematic reconciliations undertaken monthly, quarterly and annually show that the resource models provide a reliable guide to the mineralisation and that the mine designs, recovery and dilution factors are realistic and achievable.</p>
<i>Low Risk</i>	<p>Logging, sampling, assaying and QA/QC systems are appropriate and consistent with industry standards.</p> <p>The Mineral Reserve estimate is based on the CMPL estimated Measured and Indicated resources. This is considered a conservative estimate as a review of the CMPL Inferred blocks suggests that certain of these could well be categorised as Indicated and hence available for conversion to reserves. This opinion has been confirmed by Cube acting as QP.</p> <p>BDA also notes that CMPL's practice of defining hard hangingwall and footwall boundaries at a 2.5% Cu cut off limits the width of the potentially mineable zone, and that in some areas there could be potential to increase the width of the mineable ore zone.</p> <p>BDA notes that increasing depths bring geotechnical and temperature issues that require careful management, and that these factors could impact on the mineability of some blocks in the future. However, to date this aspect has been well managed and BDA does not consider that there is a significant risk to the current Mineral Reserves.</p> <p>Overall, BDA considers that the current resource and reserve estimates provide a reasonable, but probably conservative, guide to the in situ and recoverable mineralisation respectively.</p> <p>There remains significant mineralization within the mine area, most notably the down dip extensions of lodes which remain open at depth. Drilling at depth is relatively sparse, such that these projections cannot be incorporated into current reserves. Nevertheless, there is reasonable expectation that the mine life will extend well beyond the current reserve limits, and the mine has a long history of ongoing reserve replacement.</p>

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Risk Component	Comments
Underground Mining <i>Medium Risk</i>	<p>CSA is a complex mine due to the various mining methods, the number of stopes, the number of work areas, the depth, geotechnical challenges, backfill challenges and ventilation/cooling challenges. It is unlikely that adverse events can be totally eliminated. It is therefore important to have contingency plans, so that should an adverse event occur, alternate access and working areas are available and any loss in production can be made up as quickly as possible. The future dominance of the QTS North orebodies creates some concentration risk. Resources in the other orebodies and exploration strategy should be worked up to provide contingent ore sources. One of the critical aspects to achieving these objectives is to prioritise and increase development.</p> <p>With the mine progressively becoming deeper, rock stresses are increasing, and additional ventilation and cooling will be required. In addition, the current resource estimate indicates that tonnes per vertical metre are diminishing with depth. It remains to be seen if this situation will improve with further exploration. Importantly, with increasing depth, travel times for men and equipment increase significantly and issues around ore and waste movement from the lower levels of the mine to the hoisting shaft or distant stope voids (in the case of waste rock) require coordinated planning and management.</p> <p>Paste fill is delivered underground via a single borehole from surface. A second borehole would reduce the risk of interruptions to the delivery of fill.</p> <p>Over recent years, there has been a trend towards falling head grade delivered to surface. Undiluted grade reconciliation appears reasonable, but overbreak/underbreak performance and the resulting dilution and ore losses appear to be worsening. Mobile equipment utilisation has been poor and CSA management has recognised that mine planning, sequencing and scheduling of stoping operations need improvement. BDA considers that all these factors can be better managed and provide opportunity for MAC.</p>
Processing <i>Low Risk</i>	<p>Processing risk is low; the plant has a long operating history, and the ore has proved to have relatively consistent metallurgical characteristics. Recoveries are good and concentrate grades are as expected for a largely chalcopyrite deposit. There are no material deleterious elements. Short term, there could be some delays experienced during the grinding mill upgrades, which may temporarily restrict throughput and delay expected unit cost improvements. Processing costs could be affected by higher energy costs related to expected higher fuel costs worldwide. Labour problems have been experienced necessitating hiring of contract personnel and this is likely to continue.</p>
Infrastructure, and Logistics <i>Low Risk</i>	<p>Access to the mine is by sealed roads and a rail line which connect to national road and rail networks. Power and water supply facilities utilise standard technology and present no significant technical challenges. Administration and communications facilities are relatively straightforward as are the arrangements for the export of concentrate product through the Port of Newcastle.</p>
Tenement and Title <i>Low Risk</i>	<p>The political environment in New South Wales remains generally positive to new mining developments and tenement and title approvals to date have been forthcoming as required. Given that the key project mining tenure is in place and environmental development approval has previously been granted, BDA considers that the risk due to tenement or title issues is low.</p>
Project Approvals <i>Low Risk</i>	<p>Mining projects in NSW (including expansions or modifications of existing projects) require development consent under the NSW EP&A Act.</p> <p>The earliest statutory development consent held by CMPL for the CSA mine is Local Development Consent No. 31/95 and Amendment 97/98:33 approved by CSC in 1995 and 1998 which permits use of the CSA mine site by CMPL. Subsequent expansions and amendments of mining development at CSA mine have all been assessed and administered by the Cobar Shire Council.</p> <p>Given that the key project approvals are in place and environmental development approval has been granted, BDA considers that the risk due to permitting or government approval issues is low.</p>

Risk Component	Comments
Tailings and Waste Management	<p><i>Tailings Storage</i></p> <p>Regulatory standards that currently apply to the CSA mine's STSF are Dam Safety NSW, ANCOLD and the CMPL Protocol 14. Protocol 14 covers both dam safety and environmental aspects of the STSF with a consequence category assessment method based on CDA standards.</p> <p>Based on Dam Safety NSW, ANCOLD and CMPL Protocol 14, the consequence category assigned to the STSF is 'Significant'. In 2019, Dam Safety NSW updated its Dam Safety Regulation and methodologies, which require all 'declared dams' in New South Wales to adhere to the new regulations by 1 November 2021. The STSF is a 'declared dam' (Dam ID 497) and regulated by Dam Safety NSW.</p> <p>In summary, the tailings management strategy adopted by CMPL is considered appropriate, and the current design standards used incorporate a risk-based approach as required by local standards. BDA considers that the risk to dam safety is low.</p>
<i>Low Risk</i>	<p><i>Waste Rock</i></p> <p>Waste rock from underground development is backfilled into mined-out stopes where possible, but any excess is hoisted to surface for storage on waste dumps. Most waste rock is classified as NAF but around 30% of the waste material is classified as PAF rock.</p> <p>All waste rock materials are geochemically tested for issues related to ARD and potential for metal leaching. Only suitable, low risk waste rock material is permitted to be hoisted and stockpiled on the surface. Any geochemically unsuitable materials are integrated into the underground mining activities. BDA considers that the risk of waste rock leaching metals in surface storage facilities is low.</p>
Production Schedule	<p>BDA considers that while ventilation upgrades and equipment replacements are being implemented throughout 2022 and into 2023, and the backlog of capital and stope development is caught up, there is some risk to advancing production rates beyond the current levels of 1.1 – 1.2Mtpa.</p> <p>The expectation of a lower mined head grade through a combination of the general trend to lower copper grades over time and/or through a lowering of the cut-off grade, will need to be offset with higher ore production rates to maintain copper metal delivered to the process plant.</p> <p>Future production from the deeper levels within the CSA mine is expected to be impacted by lower tonnes per vertical metre necessitating high levels of development metres to maintain the same level of production, continued ventilation constraints without further ventilation and cooling upgrades, and increased ore and waste haulage from increasingly lower levels to the underground crusher station and shaft hoisting. This production risk may be in part offset by supplementing ore production from the lower levels with production from new satellite orebodies and upper-level remnant ore.</p>
<i>Medium Risk</i>	<p>The estimating methodology and data used to prepare the capital cost estimates are generally in line with industry standards for feasibility study estimates.</p> <p>The capital cost estimates for the major items of proposed capital works include project contingency allowances of around 10% of the estimates, which is consistent with the industry standard for contingency for a final feasibility study of 10-15%. However, resource project capital cost estimates are commonly subject to a significant risk of overruns even where, as in this case, the estimating data and methodology are reasonable and appropriate.</p>

Risk Component	Comments
Operating Costs	BDA considers that the MAC forecast for capital and operating costs to be achievable in light of recent performance.
<i>Medium Risk</i>	<p>Recent direct site operating costs at CSA have been of the order of US\$120M per annum for an operation delivering around 1.1 - 1.2Mtpa to the process plant. BDA recognises that there are reasonable opportunities to improve underground mining productivity, in spite of the longer-term expectation that unit costs will increase due to depth, a slight decline in copper grades and increasing development and ventilation requirements.</p> <p>The MAC financial model assumes operating costs will remain relatively stable over the LOM. Some maintenance costs should reduce once the new grinding circuit is operational, however, there is likely to be a progressive increase overall in unit operating costs over the LOM.</p> <p>Concentrate freight and realisation costs are constant in the model, but BDA considers that the freight charges and TC/RC charges will vary annually according to supply/demand and copper price factors.</p> <p>G&A costs are forecast to remain steady.</p> <p>The assumed LOM TC/RC of US\$75/wmt and US\$0.075/lb Cu respectively, are inline with historical costs.</p>
Country and Political Risk	The political environment in New South Wales remains generally positive towards metalliferous mining developments and tenement and title approvals for the CSA mine are all well established. Given that the CSA mine is well established in a historic mining area of the state and supported within the local community, BDA considers that the risk due to political or government administrative issues is low.
<i>Low Risk</i>	

22.3 Risk Mitigation Factors

BDA agrees with MAC that there are a number of factors which combine to reduce some of the identified risks; the principal amongst these are listed below:

- The CSA mine has a long operating history and the Mineral Resource, Mineral Reserve and mine production projections going forward are consistent with past performance.
- Annual reconciliation of ore tonnes and grade mined against resource model forecasts provides confidence in the reasonableness of the resource and reserve projections.
- The geological, mapping, sampling, assaying and QA/QC procedures are well established and consistent with industry standards. The geological data forms an acceptable basis for Mineral Resource and Mineral Reserve estimation.
- The significant backlog of drill hole assaying largely caused by Covid-19 staff shortages should provide opportunity to extend the resource categories once the data is received.
- Removing the hard 2.5% Cu hanging wall and footwall boundaries in the resource estimation process would allow consideration of adjacent mineralisation and could increase the mineable width and tonnage in some areas.
- There is significant exploration upside relating to both the known mineralisation systems within the Mining Lease and within the adjacent Exploration Licences covering the extensions of the major CSA mineralised structures.
- Preparing mine plans and underground access to remnant ore zones will provide alternate stoping areas in the event of any stoping and congestion issues in the lower levels. There is extensive historical experience with the current and proposed mining methods and the potential risks are well documented. Increased in-mine exploration will assist in reducing future production dependence on QTS North.

- The copper ore is generally high grade with no deleterious elements of any consequence. Metallurgical performance is good with consistent recoveries of 97-98% to a high-quality 26-27% Cu concentrate with payable silver.
- The planned SAG mill replacements should lead to operating efficiencies and better plant utilisation, presenting opportunities to increase throughput and hence reduce unit operating costs. Increased throughput however will rely on the ability of the mine to deliver increased ore tonnages as well as adequate supplies of process water and power.
- The CSA mine has a long operating history with an experienced and skilled workforce, mostly resident in Cobar. There is strong local community support for the CSA mine operation and CMPL has a positive working relationship with Cobar Shire Council. This is not unexpected, given that the CSA mine is the largest employer in the Cobar region, with approximately 500 employees and contractors.
- The New South Wales social and political environment appears generally favourable towards metal mining in the Cobar region which is increasingly becoming a metals mining hub in the more remote central-western part of the state.
- CMPL has extensive experience in estimating the costs for, and carrying out, capital works at the mine site which mitigates against the risk of significant cost overruns in delivering capital works projects.

22.4 Opportunities

BDA agrees with MAC's view that there are a number of opportunities to increase Mineral Resources and Mineral Reserves, to increase throughput, to reduce costs and to extend the mine life. In BDA's opinion, the principal opportunities are:

- Extension of the known ore zones down plunge and in-mine exploration for new ore zones within reach of existing mine infrastructure, bringing currently identified adjacent lenses into the mine plan.
- Reviewing the hard 2.5% Cu hangingwall and footwall boundaries which could lead to the mining of wider ore zones in some areas.
- Systematic exploration of the surrounding exploration licences with several mineralised structures providing potential for new discoveries and extensions to mine life.
- Undertaking mine planning work to identify and bring more remnant ore into the Mineral Reserve and mine schedule. This will not only provide addition plant feed, but contingent ore sources in the event of any production issues in the deeper areas on the mine.
- An extensive capital upgrade programme is well advanced by CMPL and will be largely completed by the end of 2022. MAC will reap the benefits of the upgrades to underground ventilation and cooling, mobile equipment replacements and SAG mill replacements.
- Underground equipment availability is high (despite the aging fleet) but utilisation is low. Making full use of the equipment available is an obvious area for improved production.
- Underground crushing, ore hoisting and process plant capacity are currently under-utilised; an increase in plant treatment rate should be possible with the new grinding mills, providing that the mine is able to deliver the ore and that adequate water and energy is available.

23 RECOMMENDATIONS

The CSA mine is an operating mine with a long performance and cost history. Under the current Glencore ownership, the operation is completing an extensive capital projects programme to upgrade the mine ventilation and refrigeration systems, underground mobile equipment and a ball mill and fine ore bin replacement programme. Lift 10 on the STSF is also expected to be completed in 2023.

Capital and operating budgets include reasonable allowances for on-going mine development and near-mine exploration and drilling for reserve replacement. It is expected that once the capital upgrade programmes are completed, only routine sustaining capital will be required for the remainder of the mine life.

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24 REFERENCES

The principal reports and documents reviewed are listed below:

CSA Copper Project Reports

- South Spur Rail Services Agreement. South Spur Rail Services Pty Ltd and CMPL. December 2009
- AMC CSA Numerical Modelling - AMC Consultants, May 2012
- CSA Site Water Management Plan - GHD, March 2013
- CSA Mine Southern TSF Mid-2015 Surveillance Report - Golder, October 2015
- CSA Mine Southern TSF Stage 9 Concept Design Summary - Golder, November 2015
- CSA Mine Southern TSF Stage 9 Raise Design Report - Golder, 2017
- Newcastle Shiploader Services Agreement - CMPL and Conports Pty Ltd, January 2017
- ITASCA Mining at Depth Study 2017 - Itasca, December 2017
- CSA Mine Ventilation and Refrigeration Feasibility Study (J18001-R004_Rev01) - BBE Consulting, October 2018
- CSA Environmental Management Plan 2020 - CMPL, 2020
- Offtake Agreement_v5 - Glencore 2020
- District Exploration Overview - CMPL, January 2020
- CSA-MP-05 Ground Control Management Plan - CMPL, July 2020
- CSA Mine Mineral Resource Estimate - CMPL, December 2020
- CSA Mine Mineral Reserve Estimate Report Draft 4 - CMPL, December 2020
- CSA Mine New Tailings Storage Facility Options - Golder, December 2020.
- CSA Regional Exploration - CMPL, January 2021
- CSA Mine Mining Operations Plan (MOP) 2021-2022 v1 - Cobar Management Pty Ltd, March 2021
- CSA Mine Mining Operations Plan 2021-2022_v1 - CMPL, March 2021
- CSA Mine Updated STSF Capacity Assessment - Golder, June 2021
- CSA Mine Southern TSF Tailings Storage Capacity Assessment - Golder, June 2021
- CSA Tenement Audit EOFY2021 Cobar Management Pty Ltd (CMPL) - Hetherington, 2021
- CSA_TSM_004_Review of the In-Situ Principal Stress Magnitude and Directions - CMPL, September 2021
- Information Memorandum, “*Project Chariot – Confidential Information Memorandum.pdf*” - CMPL, October 2021
- CSA Mine Confidential Information Memorandum - CMPL, October 2021
- 2021 Mineral Resource and Mineral Reserve Snapshot CSA Mine - CMPL Copper, November 2021
- Cost Model, “*Chariot I LOA Cost Model_VDR_Phase II.xlsx*” - CMPL, December 2021
- CSA Mine LOM Production Schedule_VDR spreadsheet - CMPL 2022
- Diluted grades and tonnes reconciliation_2019-2021 (YTD)_VDR_Phase II spreadsheet - CMPL 2022
- CSA Mine Chariot I LOA Cost Model_VDR_Phase II spreadsheet - CMPL 2022
- CSA Mine 2022 Budget - CMPL 2022
- CSA Mine LOA Organic Growth through Sustained Exploration - CMPL 2022
- Project Chariot - Financial Model_MAC_25012022_FD_SRK - MAC, January 2022
- CSA Mine Monthly Reports - CMPL, January 2019 to February 2022
- Independent Technical Review CSA Mine - SRK Consulting Pty Ltd, February 2022
- Metals Acquisition Corp. CSA Mine Investor Presentation - MAC, March 2022
- CSA Mine Yearly Stope Production Reconciliations_2021_Dec spreadsheet - CMPL, March 2022
- CSA Mineral Resource Estimate March 2022 - Cube Consulting Pty Ltd, April 2022

General Data

- Australasian Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves – Report of the Australasian Joint Mineral Reserve Committee - Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, December 2012 (the JORC Code)
- Regulation S-K Part 229.1300 Disclosure by Registrants Engaged in Mining Operations, Item 1302 Qualified Person, Technical Report Summary and Technical Studies

25 RELIANCE ON INFORMATION PROVIDED BY THE REGISTRANT

This assessment has been based on data, reports and other information made available to BDA by MAC and CMPL and referred to in this report. BDA has been advised that the information is complete as to material details and is not misleading. BDA has relied upon the data provided by MAC, CMPL and their advisors and consultants; BDA is unable to warrant the accuracy and completeness of the data provided by third parties but has found no reason to question the validity, completeness or accuracy of the data provided.

BDA has reviewed the data, reports and information provided and has used consultants with appropriate experience and expertise relevant to the various technical requirements. The opinions stated herein are given in good faith. BDA believes that the basic assumptions are factual and correct and the interpretations reasonable.

With respect to the BDA report and use thereof by MAC, MAC agrees to indemnify and hold harmless BDA and its shareholders, directors, officers, and associates against any and all losses, claims, damages, liabilities or actions to which they or any of them may become subject under any securities act, statute or common law and will reimburse them on a current basis for any legal or other expenses incurred by them in connection with investigating any claims or defending any actions.

The report is provided to the Directors, advisors and shareholders of MAC for the purpose of assisting them in assessing the technical issues and associated risks of the project acquisition and should not be used or relied upon for any other purpose. Neither the whole nor any part of this report nor any reference thereto may be included in, or with, or attached to any document or used for any purpose without BDA's written consent to the form and context in which it appears.

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