

Catalyst Metals

Catalyst Metals controls three highly prospective gold belts. It has a multi asset strategy.

It owns the 40km long Plutonic-Marymia Gold Belt in Western Australia hosting the Plutonic gold mine and neighbouring underexplored, high-grade resources.

It also owns and operates the high-grade Henty Gold Mine in Tasmania which lies within the 25km Henty gold belt. Production to date is 1.4Moz @ 8.9 g/t.

Catalyst also controls +7.3km of strike length immediately north of the +2.2Moz Bendigo goldfield and home to high-grade, greenfield resources at Four Eagles.

Capital Structure

Shares o/s: 219m
Options: 3.9m
Cash: \$39.8m (Mar-23)
Debt: \$14.9m

Board Members

Robin Scrimgeour
Interim Non-Executive
Chairman

**James Champion de
Crespigny**
Managing Director & CEO

Stephen Boston
Non-Executive Director

Bruce Kay
Non-Executive Director

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Plutonic Gold Project

Trident Scoping Study demonstrates Plutonic's potential

Catalyst Metals Limited ("**Catalyst**" or the "**Company**") (ASX:CYL) is pleased to announce the results of a scoping study for the Company's high-grade Trident Underground Deposit ("**Trident**" or the "**Project**") in the newly consolidated Plutonic Gold Belt in Western Australia. The scoping study demonstrates a low upfront capital development of A\$36m with strong pre-tax cashflows of A\$294m. The scoping study highlights the benefits of leveraging the existing Plutonic infrastructure.

Cautionary Statement

The Scoping Study referred to in this announcement is a preliminary technical and economic study of the potential viability of developing the Trident Underground Project by developing a mine and processing material through the Plutonic processing facility. The Scoping Study referred to in this announcement is based on lower-level technical and preliminary economic assessments and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or certainty that the conclusions of the Scoping Study will be realised.

Approximately 87% of the Life-of-Mine production is in the Indicated Mineral Resource category and 13% is in the Inferred Mineral Resource category. The Company has concluded it has reasonable grounds for disclosing a Production Target, given that the Scoping Study assumes that in the first two years of operation, 76% of the production is from the Indicated Resource category. Indicated material processed during the first four years of production accounts for 90% of gold produced.

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

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

JORC clause 38 defines a "scoping study" as an order of magnitude technical and economic study of the potential viability of mineral resources. It includes appropriate assessments of realistically assumed modifying factors together with any other relevant operational factors that are necessary to demonstrate at the time of reporting that progress to a pre-feasibility study can be reasonably justified.

To achieve the potential mine development outcomes indicated in the Scoping Study, funding in the order of A\$50 million will likely be required. Investors should note that there is no certainty that the Company will be able to raise funding when needed, however the Company has concluded it has a reasonable basis for providing the forward-looking statements included in this announcement and believes that it has a "reasonable basis" to expect it will be able to fund the development of the Project.

It is also possible that such funding may only be available on terms that may be dilutive to, or otherwise affect the value of the Company's existing shares. It is also possible that the Company could pursue other strategies to provide alternative funding options including project finance.

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

Key Points

- Estimated low capital development of \$36m with an initial mine life of 4.3 years
- Estimated IRR of 132% and pre-tax NPV of \$246m at A\$2,700 gold price, increasing to \$276m (145% IRR) at spot gold prices
- AISC of A\$1,046/oz, free cashflow over life of mine of \$294m
- Considerable exploration upside; Trident remains open along strike and at depth
- Trident development remains highly leveraged to future Resource conversion; \$18/oz¹ conversion cost has potential to generate \$160/oz free cashflow²
- Definitive feasibility studies commenced to support final investment decision; targeting first ore in Q4 CY2024

Catalyst MD/CEO, James Champion de Crespigny said: *“The potential of Trident has long been understood. Trident is a high-grade resource but has historically lacked access to processing infrastructure. The consolidation of the Plutonic Gold Belt by Catalyst has allowed for the potential of Trident to be realised.*

What’s most exciting about Trident is the significant value that can be created from incremental gains to the mining inventory. Trident Resource is 400koz. Yet the scoping study only contains mining inventory of 230koz. With the deposit remaining open in all directions, and all processing and haulage infrastructure in place, there is an opportunity to significantly increase the value of the project for a very low cost .”

Trident Underground Scoping Study

The scoping study has evaluated an underground development at Trident with ore³ transported and processed at the Plutonic processing facility. It has been assumed that Trident will be an incremental ore source to a base load being processed at Plutonic. With a high fixed cost base, incremental ore feed at Plutonic has the potential to be processed at relatively low cost.

Key Study Outcomes

The scoping study demonstrates that the Trident mine has the potential to produce an estimated 230koz of gold over an initial four and a half year mine life at an average grade of 6.7g/t Au.

At an assumed gold price of A\$2,700, Trident produces an NPV of approximately \$246m, an IRR of 132% and has a payback of approximately 1 year. Free cashflow over the initial life of mine is \$296m. At current spot gold prices, the NPV increases to \$278m and an IRR of 146%.

Key operational parameters and assumptions are set out in Table 2 and further outlined in the detailed Scoping Study provided in Appendix 2.

¹ Resource conversion cost based on Catalyst internal estimate of drilling intensity and drilling costs required to convert Inferred to Indicated

² Free cashflow calculated as assumed gold price of A\$2,700 less AISC of \$1,046/oz ~ \$1,650/oz FCF

³ Scoping Study based on Resource published in ASX announcement 22 February 2023 “Marymia Gold Project Mineral Resource – Updated”

Financial outputs (at A\$2,700 gold price)		
NPV (5%)	A\$m	246
IRR	%	132%
Payback (yrs)	Yrs	1
Undiscounted free cashflow	A\$m	296
C1 cash cost	A\$/oz	817
AISC	A\$/oz	1,046

Table 1: Financial outputs from Trident Scoping Study

Operational outputs		
LOM	yrs	4.3
LOM tonnes	ktpa	1,073
LOM grade	g/t Au	6.7
LOM gold production	oz	229,521
Recoveries	%	89%
LOM recovered ounces	oz	204,274
Production from indicated resources	%	87%
Pre-production capital	A\$m	36
LOM capital	A\$m	69
Average annual tonnes mined	ktpa	264,488
Average annual grade	g/t Au	6.7
Average annual gold production	oz	57,005
Average annual free cashflow	A\$m	82

Table 1: Key Operational parameters of Trident Scoping Study

A longer-term exploration strategy is being developed with a focus on extending the Trident mine life. The Trident deposit remains open along strike and at depth and Catalyst has identified a number of opportunities for targeted exploration to potentially increase the mineral resource.

Sensitivities

Catalyst has undertaken sensitivity analysis of key economic assumption including discount rates, gold price, operating and capital cost assumptions and metallurgical recoveries. These sensitivities are shown in Table 2 and in Figure 1. In all scenarios tested, the economic estimates from the Trident scoping study remained positive.

Discount rate sensitivities	NPV (\$Am)	IRR (%)
5%	\$Am	246
8%	\$Am	222
10%	\$Am	207

Table 2: Discount rate sensitivities

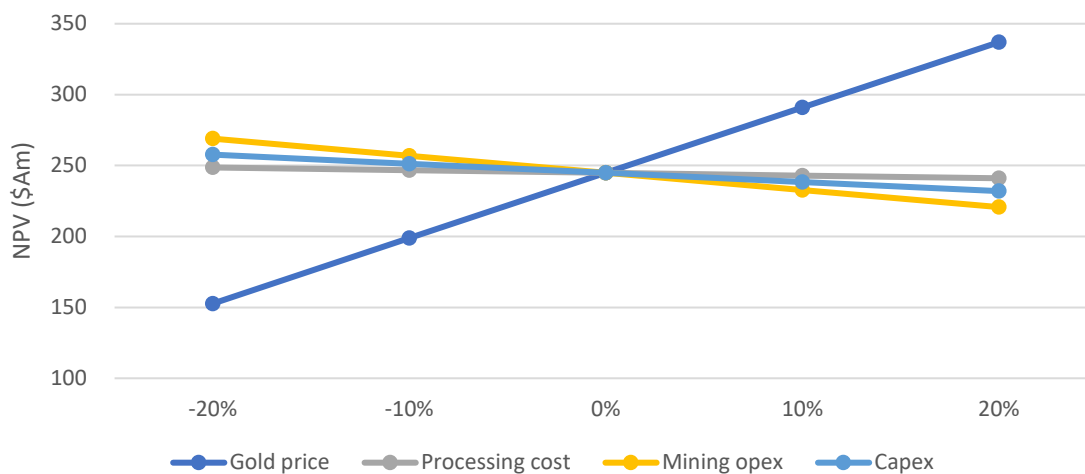


Figure 1: Economic sensitivities

Assumptions

Mining cost estimates were developed by Entech and Catalyst using recent actual operating costs from the Plutonic Gold operations. The rates were assembled as a fully variable schedule of rates, which were applied to mining physicals. Where Trident mining activities such as the use of shotcrete and pastefill aren't utilised at Plutonic, additional costs were estimated to ensure these items were appropriately accounted for. Additional capital infrastructure costs and non-mining costs were estimated by Entech and Catalyst⁴.

A gold price of \$A2,700/oz has been adopted. Management considers this a reasonable assumption which is lower than the past 12 month average spot price.

⁴ Mining costs and assumptions have been considered and developed in the context of the scoping study level of maturity. Management considers that, given the level of study, these assumptions are subject to uncertainty and may change as the level of study matures.

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Key assumptions		
Discount rate	%	5%
Gold price	\$A/oz	2,700
State royalty	%	2.5%
Ore from indicated resources	%	87%
Ore from inferred resources	%	13%
Processing cost	\$A/t	20.50
Processing recovery	%	89%
Underground mining operating cost	A\$/t	129.36
Infrastructure capital	A\$m	18
Underground mining capital cost	A\$/t	64.29
General and administrative	A\$/t	5.58

Table 3: Key assumptions

TRIDENT UNDERGROUND JORC 2012 MINERAL RESOURCE ESTIMATE FEBRUARY 2023										
Deposit	Cut-off	Indicated			Inferred			Total		
Mineral Resource	Au g/t	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz
Trident UG	3.0	945	9.4	285	645	6.0	125	1,590	8.0	410

Table 4: Trident Mineral Resource⁵

Funding

To achieve the outcomes in the Scoping Study, funding in the order of \$50m is required, which will include all pre-production costs, of which the pre-production capital is \$36m. The Company considers that there is a reasonable basis to assume that future funding will be achievable based on the following:

- The Project has demonstrated strong technical and economic fundamentals
- The Project generates robust cashflows at conservative gold prices
- The Company and its Directors have a strong record of raising capital, both in debt and equity markets
- The Company has appointed Argonaut PCF as its corporate debt advisor in relation to the funding of the Trident development. Argonaut has extensive experience funding resource projects.

There is no certainty that Catalyst will be able to source funding when required and it is possible that such funding may be dilutive or otherwise affect the company's shares.

Next steps

The Scoping Study demonstrates that progress to a more detailed level of study is justified.

⁵ Scoping Study based on Resource published in ASX announcement 22 February 2023 "Marymia Gold Project Mineral Resource – Updated"

A definitive feasibility study has commenced, with completion expected in the second half of CY2023. The DFS will address areas identified in the Scoping Study that require additional detail to support financing and final investment decisions.

Catalyst is targeting first ore by Q4 CY2024, key workstreams are noted below.

- Definitive Feasibility Study – CY2023
- Regulatory approvals, licencing and construction – CY2024
- First ore – Q4 CY2024

Catalyst would like to thank the industry leading and independent specialist technical consultants that were engaged to contribute to, and develop the Scoping Study, including:

Mine Planning	Entech Pty Ltd
Geology	Catalyst Metals
Metallurgy and Processing	Extreme Metallurgy
Environmental	RPM Advisory Services Pty Ltd
Native Title and Heritage	RPM Advisory Services Pty Ltd
Operating Cost Estimates	Entech
Capital Cost Estimates	Entech
Economics	Catalyst Metals
Funding	Catalyst Metals

This announcement has been approved for release by the Board of Directors of Catalyst Metals Limited.

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Competent person's statement

The Statement of Mineral Resource Estimates has been compiled by Dr. Spero Carras who is a full-time employee of Carras Mining Pty Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ("FAusIMM"). Dr. Carras has sufficient experience, including over 40 years' experience in gold mine evaluation, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ("JORC") Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Dr. Carras consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

JORC 2012 Mineral Resources and Reserves

Catalyst confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements.

Forward Looking Statements

This Announcement includes "forward-looking statements" as that term within the meaning of securities laws of applicable jurisdictions. Forward-looking statements involve known and unknown risks, uncertainties and other factors that are in some cases beyond Catalyst Metal Limited's control. These forward-looking statements include, but are not limited to, all statements other than statements of historical facts contained in this presentation, including, without limitation, those regarding Catalyst Metals Limited's future expectations. Readers can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "continue," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "potential," "predict," "project," "risk," "should," "will" or "would" and other similar expressions. Risks, uncertainties and other factors may cause Catalyst Metal Limited's actual results, performance, production or achievements to differ materially from those expressed or implied by the forward-looking statements (and from past results, performance or achievements). These factors include, but are not limited to, the failure to complete and commission the mine facilities and related infrastructure in the time frame and within estimated costs currently planned; variations in global demand and price for gold and silver; fluctuations in exchange rates between the U.S. Dollar and the Australian Dollar; the failure of Catalyst Metal Limited's suppliers, service providers and partners to fulfil their obligations under construction, supply and other agreements; unforeseen geological, physical or meteorological conditions, natural disasters or cyclones; changes in the regulatory environment, industrial disputes, labour shortages, political and other factors; the inability to obtain additional financing, if required, on commercially suitable terms; and global and regional economic conditions. Readers are cautioned not to place undue reliance on forward-looking statements. The information concerning possible production in this announcement is not intended to be a forecast. They are internally generated goals set by the board of directors of Catalyst Metal Limited. The ability of the Company to achieve any targets will be largely determined by the Company's ability to secure adequate funding, implement mining plans, resolve logistical issues associated with mining and enter into any necessary off take arrangements with reputable third parties. Although Catalyst Metal Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

International Financial Reporting Standards

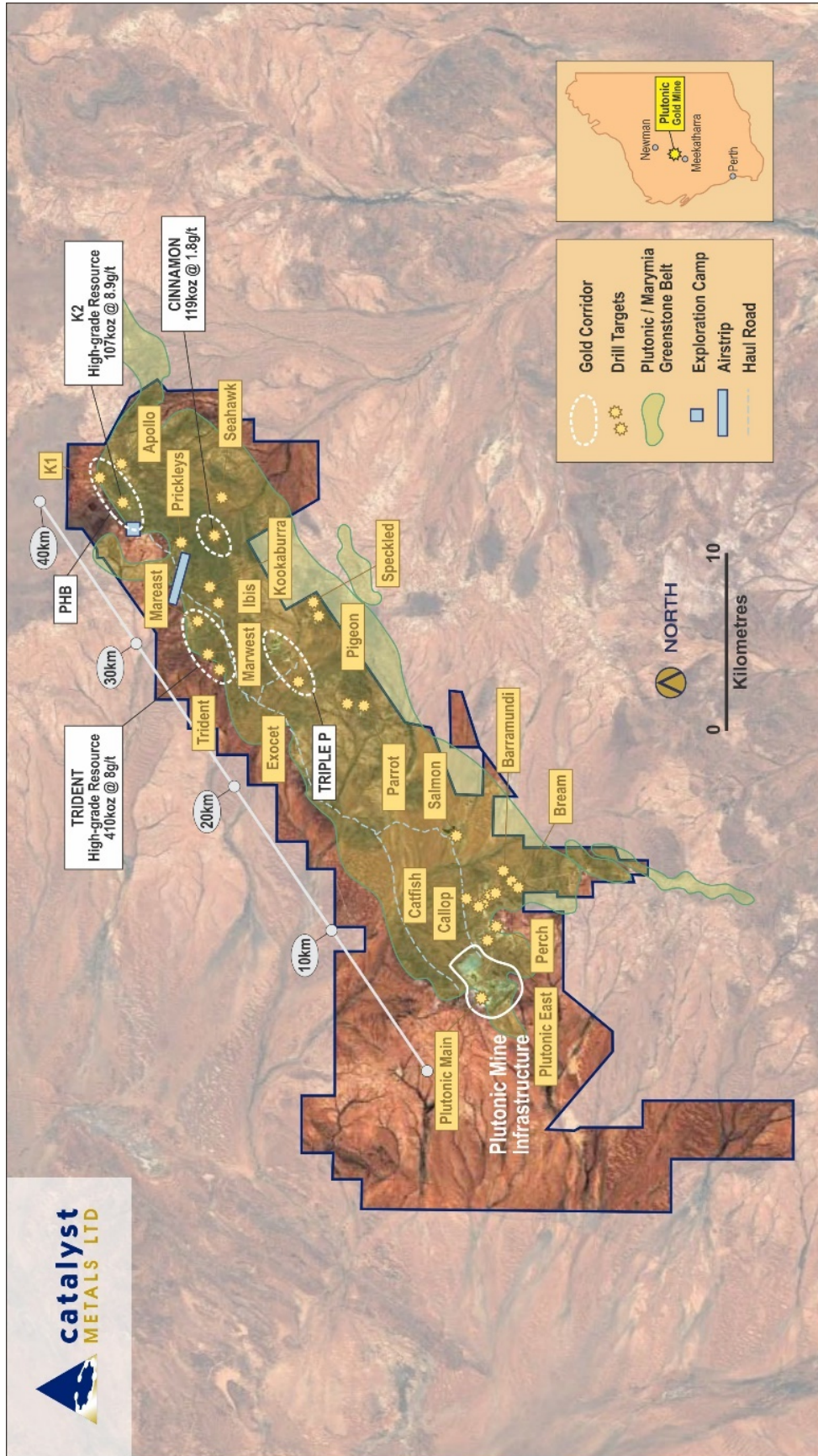
This Announcement contains certain financial measures relating to the Scoping Study that are not recognized under International Financial Reporting Standards (IFRS). Although the Company believes these measures provide useful information about the financial forecasts derived from the Scoping Study, they should not be considered in isolation or as a substitute for measures or performance or cash flow prepared in accordance with IFRS. As these measures are not based on IFRS, they do not have standardized definitions and the way the Company calculates the measures may not be comparable to similarly titled measures used by other companies. Consequently undue reliance should not be placed on these measures.

Reasonable Basis for Forward Looking Statements

No Ore Reserve has been declared. This ASX release has been prepared in compliance with the JORC Code (2012) and The ASX Listing Rules. All material assumptions on which the Scoping Study production target and projected financial information are based have been included in this release and disclosed in Appendix 1.

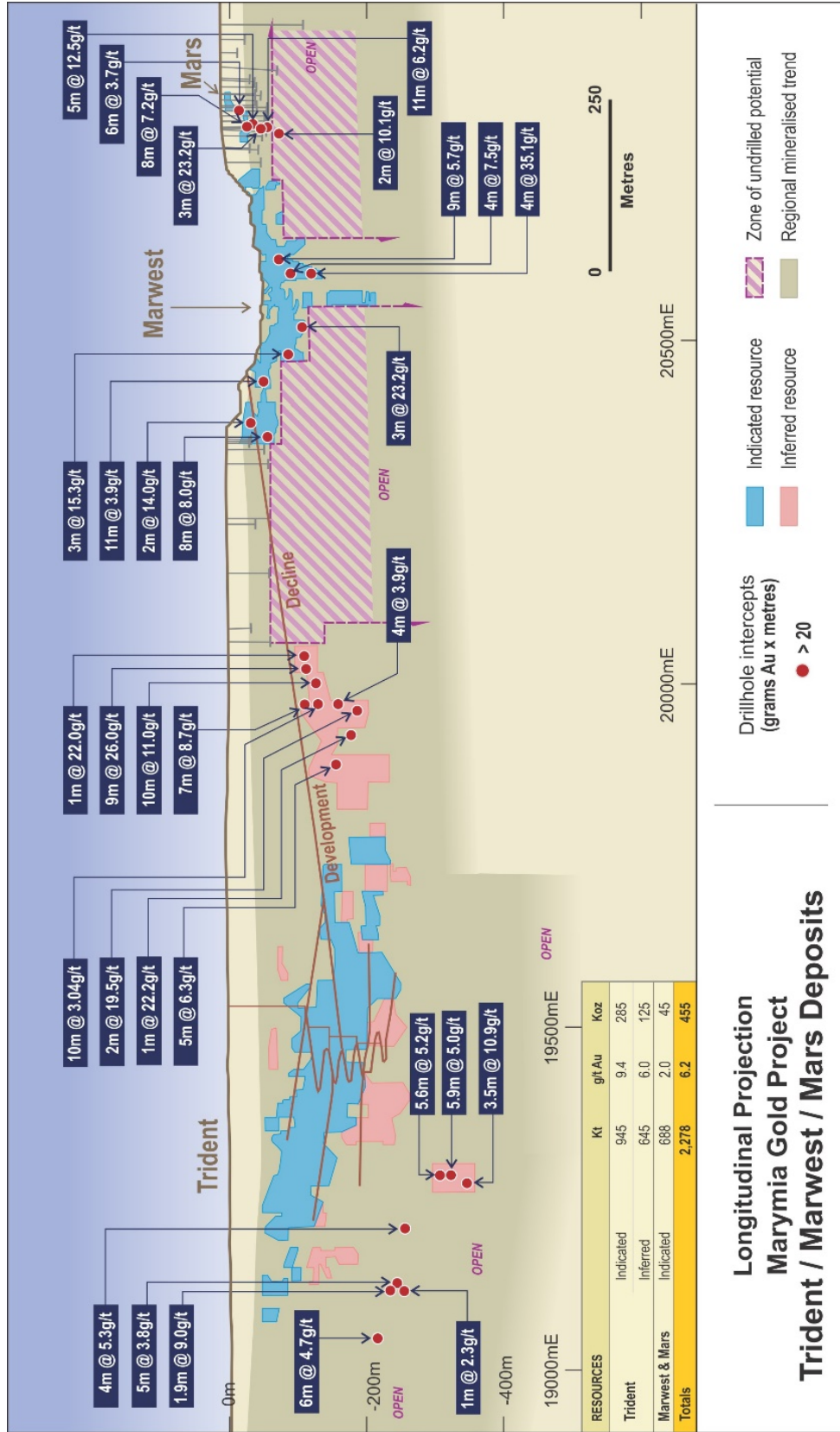
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Figure 2: Plutonic-Marymia gold belt



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Figure 3: Trident/Marwest long section



**Longitudinal Projection
Marymia Gold Project
Trident / Marwest / Mars Deposits**

Appendix 1

Summary of Scoping Study Modifying Factors which includes an approximate Production Target and/or Forecast Financial Information

Criteria	Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	<ul style="list-style-type: none"> No JORC Code (2012) Ore Reserve estimate has been classified or reported. The preliminary production target is based on the Mineral Resource for the Trident Project comprising underground resources at a cut-off grade of 3.0g/t Au of 945kt at 9.4g/t Au in the Indicated category and 645kt at 6.0g/t Au in the Inferred category Reported in Catalyst Metal's ASX Announcement dated 22 February 2023. These Mineral Resources used to underpin the production target were prepared by Mr Spero Carras who is a Competent Person.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Site visits have recently been conducted as part of the NI 43-101 reporting required under the Canadian Plan of Arrangement with Superior Gold Inc.
Study status	<ul style="list-style-type: none"> The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The JORC Code (2012) requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered. 	<ul style="list-style-type: none"> The study presented is a Scoping Study and accordingly an Ore Reserve is not reported.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> Previous mining study findings calculated a 3 g/t incremental cut-off grade for stope optimisation. On this basis CYL completed a set of stope optimisations at 3 g/t which Entech utilised in the final mine design and scheduling. Review of the mining costs and revenue inputs described in the previous study were deemed appropriate, and the cut-off grade suitable, for use in this scoping study.

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<p>Mining factors or assumptions</p>	<ul style="list-style-type: none"> • The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e., either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (e.g., pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods. 	<ul style="list-style-type: none"> • No JORC Code (2012) Ore Reserve estimate has been classified or reported. • Ore dilution and mining recovery factors have been estimated for development and stoping activities. 15% dilution and 90% recovery have been applied to all stoping activities. • Typically, a 95% ore recovery factor is applied to stoping activities, however it is acknowledged that some of the stope shapes will require further refinement in the next study. As such a further 5% recovery loss has been applied to the stope shapes as a conservative approach to account for future redesign. • Lateral development assumes 0% dilution. A mining recovery of 100% has been assumed for all lateral development. • Gold price A\$2,700/oz. • Processing cost \$20.50/t milled for 1.8Mtpa • As part of the mining cost estimate, Entech used recent actuals from CYL's Plutonic operation. The rates are assembled as fully variable schedule of rates, which were applied to mining physicals. • General and administration cost \$5.58/t • All costs are in AUD • WA state royalty of 2.5%
<p>Metallurgical factors or assumptions</p>	<ul style="list-style-type: none"> • The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining • applied and the corresponding metallurgical recovery factors 	<ul style="list-style-type: none"> • Trident ore will be transported and processed at the Plutonic processing facility. It is assumed that Trident will be an incremental ore source to a base load being processed at Plutonic. • The Plutonic plant is an established operation, historical operating costs are generally well understood and reliable. • Testwork, commissioned by Como Engineers and conducted by ALS Metallurgy, Report A19022, showed that the Trident fresh ore is suitable for treatment via a typical crush, grind and leach process, with final gold recoveries being ~90%. • Hardness testing of the Trident underground ore showed that the Bond Ball Mill work index of the Trident fresh ore was 13.3kWh/t. This is considered medium

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	<p>applied.</p> <ul style="list-style-type: none"> Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	<p>and is consistent with an ultramafic orebody.</p> <ul style="list-style-type: none"> No bulk or pilot scale testwork has been carried out to date.
Environmental	<ul style="list-style-type: none"> The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported. 	<ul style="list-style-type: none"> Environmental studies have been completed and include flora and fauna surveys and did not record any threatened or priority ecological communities. Groundwater assessments have also been undertaken and will be subject to additional work in the PFS. Waste rock characterisation will be undertaken in the DFS. Ore from Trident will be processed at the Plutonic processing plant and as such will utilize the Plutonic tailings storage facility. The TSF at Plutonic has sufficient approvals in place to manage additional tailings from Trident.
Infrastructure	<ul style="list-style-type: none"> The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed. 	<ul style="list-style-type: none"> The Trident Development will utilise existing support infrastructure at the Plutonic Gold Mine which is a well-established mine with associated services and infrastructure. The mine can be accessed by aircraft or by road and operates as a fly-in/fly-out operation and maintains a camp on site for the employees and contractors. The camp has capacity for 500+ persons, and includes wet and dry mess facilities, a recreational oval, gymnasium, and entertainment room. Electricity at Trident will be provided by diesel gensets and have been considered as part of the underground mining cost model. A route between Trident and Plutonic exists and it anticipated that these access roads will serve as a suitable haulage and service road between the Plutonic mill, and the Trident deposit and associated infrastructure. Detailed assessment of these access roads will be required in the next phase of study to assess the suitability of these for heavy haulage.
Costs	<ul style="list-style-type: none"> The derivation of, or assumptions made, regarding projected capital costs in the Study. The methodology used to estimate operating costs. Allowances made for the content of deleterious 	<ul style="list-style-type: none"> As part of the mining cost estimate, Entech used recent actuals from CYL's Plutonic operation. The rates are assembled as fully variable schedule of rates, which were applied to mining physicals. Where Trident mining activities such as the use of shotcrete and pastefill aren't utilised at Plutonic, additional costs were estimated to ensure these items were appropriately accounted for. Additional capital infrastructure costs

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	<p>elements.</p> <ul style="list-style-type: none"> • The source of exchange rates used in the Study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private. 	<p>and non-mining costs were estimated by Entech and CYL.</p> <ul style="list-style-type: none"> • Details regarding the basis of the cost estimate and technical considerations are detailed in the Scoping Study. • All costs are based in AUD • A WA State Royalty of 2.5% is assumed. No private royalties are payable. • No allowances were made for deleterious elements as they are not considered material given the study level of accuracy.
Revenue factors	<ul style="list-style-type: none"> • The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<ul style="list-style-type: none"> • Catalyst has assumed all gold produced will be sold into the spot market. Gold price received is net of smelter returns.
Market assessment	<ul style="list-style-type: none"> • The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	<ul style="list-style-type: none"> • The 12-month price range for gold reached a low of A\$2,494/oz and a high of A\$3,063/oz (source Kitco.com). A price assumption of A\$2,700 has been applied.
Economic	<ul style="list-style-type: none"> • The inputs to the economic analysis to produce the net present value (NPV) in the Study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<ul style="list-style-type: none"> • The inputs to the NPV analysis are detailed in the Study. • The NPV was determined using the Discounted Cash Flow method of valuation using a discount rate of 5%. • The financial model is in real terms and no escalation was applied. • Inflation was not included • NPV range is between approximately \$199M and US\$291M, based on a 10% variation in gold price. The project is most sensitive to gold price, followed by operating costs. Further detail on sensitivity is presented in the Study.

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	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<ul style="list-style-type: none"> The mining tenement for Trident, M52/217, is listed on Schedule 4 of the Extract from the Native Title Register as Other Interests – Mining Interest. Other interests are subject to Order 9 of the Determination that has been interpreted that the Project is not required to have an Indigenous Land Use Agreement (ILUA), however Catalyst has advised they will engage with the Marputu People throughout Project development.
Other	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	<ul style="list-style-type: none"> No naturally occurring risks have been identified. No marketing agreements are currently in place, nor are they expected to be. The Trident project is governed by existing Mining Leases and future operations are likely to trigger a works approval and licence for the following prescribed premise activities include: Category 6 - Mine dewatering, Category 54 - Sewage facility, Category 64 - Class II putrescible landfill site, Category 70 - Screening etc. of material. A Native Vegetation Clearing Permit (NVCP) will be required under Part V of the EP Act if the additional ground disturbance for supporting infrastructure is required for Project activities. Relevant approvals have been considered in the timelines outlined in this Study.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<ul style="list-style-type: none"> Ore reserves have not been classified and reported.

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Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> No audits or reviews have been conducted.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> No Ore Reserve estimates have been reported. The level of accuracy of the Scoping Study is +/- 35%. The Scoping Study assumes that in the first two years of operation, 76% of the production is from the Indicated Resource category. Indicated material processed during the first four years of production accounts for 90% of gold produced A DFS has commenced and is scheduled for completion in H2 2023.

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Appendix 2

Scoping Study Executive Summary

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Catalyst Metals Limited

Plutonic-Marymia Gold Belt Trident Underground Deposit

Scoping Study Executive Summary July 2023

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Contributors

This scoping study has been completed with the assistance of experienced and reputable independent consultants. Contributions to this scoping study are noted below.

Mine Planning	Entech Pty Ltd
Metallurgy and Processing	Extreme Metallurgy
Environmental	RPM Advisory Services Pty Ltd
Native Title and Heritage	RPM Advisory Services Pty Ltd
Operating Cost Estimates	Entech Pty Ltd
Capital Cost Estimates	Entech Pty Ltd
Economics	Catalyst Metals
Funding	Catalyst Metals

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Executive Summary

The Trident deposit is a high-grade mineral resource located approximately 25km north-east of Catalyst's 100% owned Plutonic gold mine. This scoping study has evaluated an underground development at Trident with ore to be transported and processed at the Plutonic processing facility. It is assumed that Trident will be an incremental ore source to a base load being processed at Plutonic.

Key metrics

The results of the scoping study demonstrate that the Trident mine will produce 230koz of gold over an initial four year mine life at an average grade of 6.7g/t Au. At an assumed gold price of A\$2,700, Trident produces an NPV of \$246m, an IRR of 132% and has a payback of approximately 1 year.

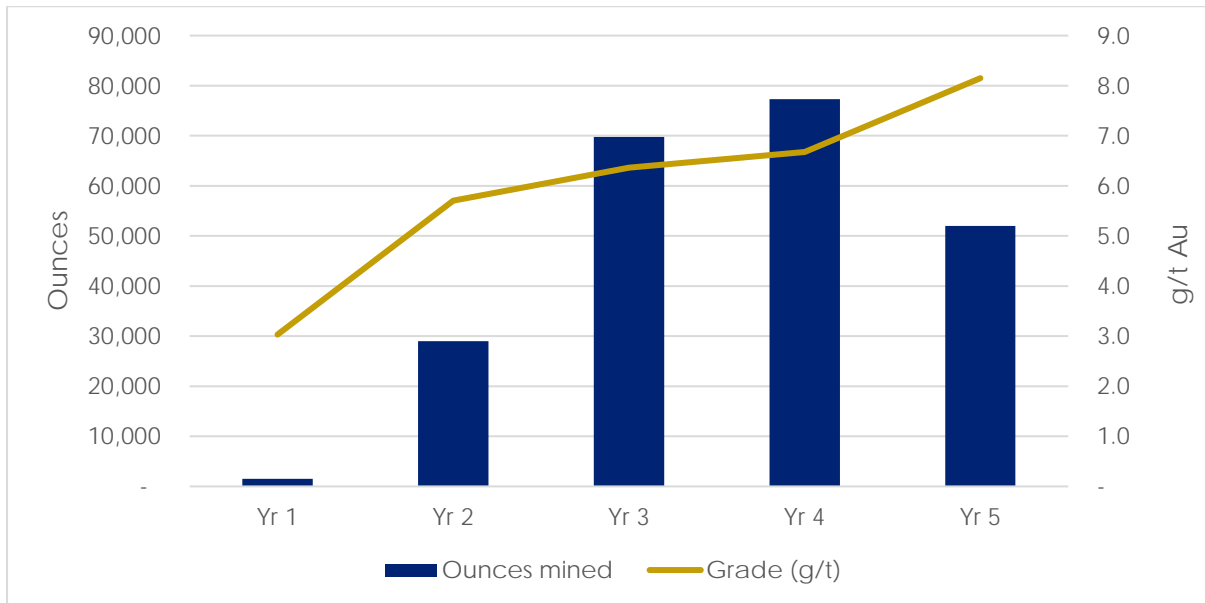
Table 1: Financial outputs

Financial outputs (at A\$2,700 gold price)		
NPV (5%)	\$Am	246
IRR	%	132%
Payback (yrs)	Yrs	1
Undiscounted free cashflow	\$Am	296
C1 cash cost	\$A/oz	817
AISC	\$A/oz	1,046

Table 2: Operational parameters

Operational outputs		
LOM	yrs	4.3
LOM tonnes	ktpa	1,073
LOM grade	g/t Au	2.3
LOM gold production	oz	229,521
Recoveries	%	89%
LOM recovered ounces	oz	204,274
Ore from indicated resources	%	87%
Pre-production capital	\$Am	36
LOM capital	\$Am	69
Average annual tonnes mined	ktpa	264,488
Average annual grade	g/t Au	6.7
Average annual production	oz	57,005
Average annual free cashflow	\$Am	83

Figure 1: Trident initial LOM production and grade



Recommendation and next steps

The results of the scoping study demonstrate that progress to a more detailed level of study is justified. A number of areas that have been identified as requiring more detailed study, including:

- Detailed scheduling and improved costings of the final designs
- Updated review of geotechnical expected condition and impact on mine design
- Detailed engineering design and improved costing for mining infrastructure, including ventilation (VentSIM modelling required)
- Expanded metallurgical test work to optimise blending and throughput rates at the Plutonic mill
- Haulage evaluation options, and contracting and procurement strategy
- Detailed engineering and design for the pastefill plant, including design, location, capital and operating costing, and testwork using the likely mill material
- Engagement with DMIRS, DWERS and other government regulators to ensure key environmental and regulatory risks are adequately addressed and managed
- Assessment to characterise waste rock and tailings
- Hydrogeological review
- Review of the mining method below 320 mRL to determine if a more robust economic solution exists
- Diamond drill below 320 mRL to improve geological understanding

A definitive feasibility study has commenced, with completion expected in the second half of CY2023. The DFS will address the above items in its scope and is expected to support financing and final investment decisions.

Company overview and basis of study

Company overview

Catalyst Metals Limited (**Catalyst** or the **Company**) is an ASX listed gold production and exploration company (**ASX: CYL**).

Catalyst's strategy is to control gold belts in established mineral provinces in Australia which, in management's view, provide the company with exploration upside. The three pillars of Catalyst's current strategy are as follows:

- in Western Australia, Catalyst owns the Plutonic-Marymia Gold Project located approximately 300 kilometres northeast of Meekatharra in the mid-west region of Western Australia. This includes the operating Plutonic Gold Mine and 40km of underexplored and prospective neighbouring tenements;
- in Victoria, Catalyst holds a significant landholding with a large, contiguous dominant tenement package covering 75 kilometres of strike length immediately north of the proven +22Moz Bendigo Goldfields and near Agnico Eagle's high grade Fosterville gold mine; and
- in Tasmania, Catalyst owns a strategic tenement package covering 25 kilometres of strike length of the under explored Henty fault and operates the high-grade Henty Gold Mine which has produced 1.4Moz of gold at a head grade of 8.9 g/t gold.

Basis of Study

Trident is part of the Plutonic-Marymia gold project. Development of Trident proposes to use an owner operator mining team, and the mining cost basis is from Catalyst's operating and nearby Plutonic mine which utilises similar mining methodologies.

This scoping study assumes that Trident Ore will be processed at the Plutonic processing facility. It is assumed that Trident will be an incremental ore source to a base load being processed at Plutonic. This assumption is the basis for the processing and general and administrative costs used in this study.

Trident history and overview

Asset History

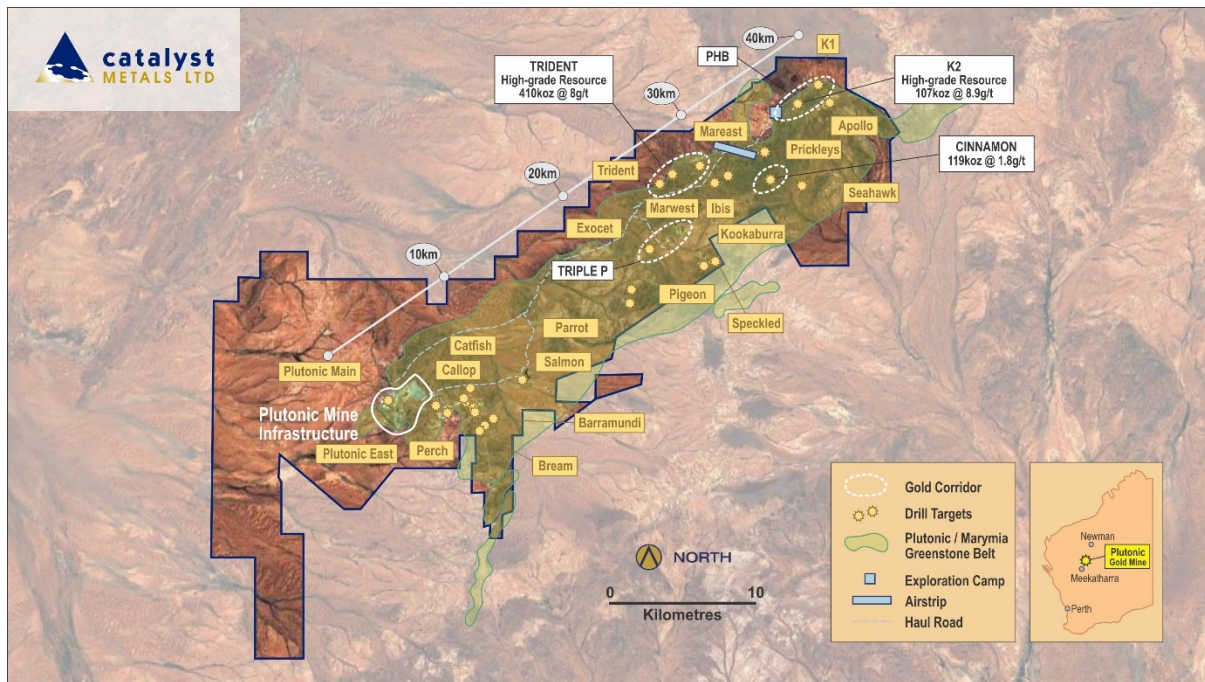
The Trident deposit was discovered in 1996 by Resolute Mining Ltd. An attempt to mine the deposit was made in 1997 and the operation was placed on care and maintenance in December 1997, and is currently abandoned.

The mine was subsequently purchased by Homestake in 1998, who were then taken over by Barrick Gold Australia Ltd in 2001. Dampier Gold purchased the property in 2010, with the mine acquired by Vango Mining Ltd (then named Ord River Resources Ltd) in 2014.

The project area, which contains Trident, Marwest pit, Mareast pit, and the planned site for the mine offices, workshop and treatment plant, is fully contained within granted mining leases held by CYL, who purchased these assets in 2023. The area to the north west and south west of the mining lease containing Trident are covered by exploration leases which are also held by CYL.

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Figure 2: Plutonic-Marymia Gold Belt



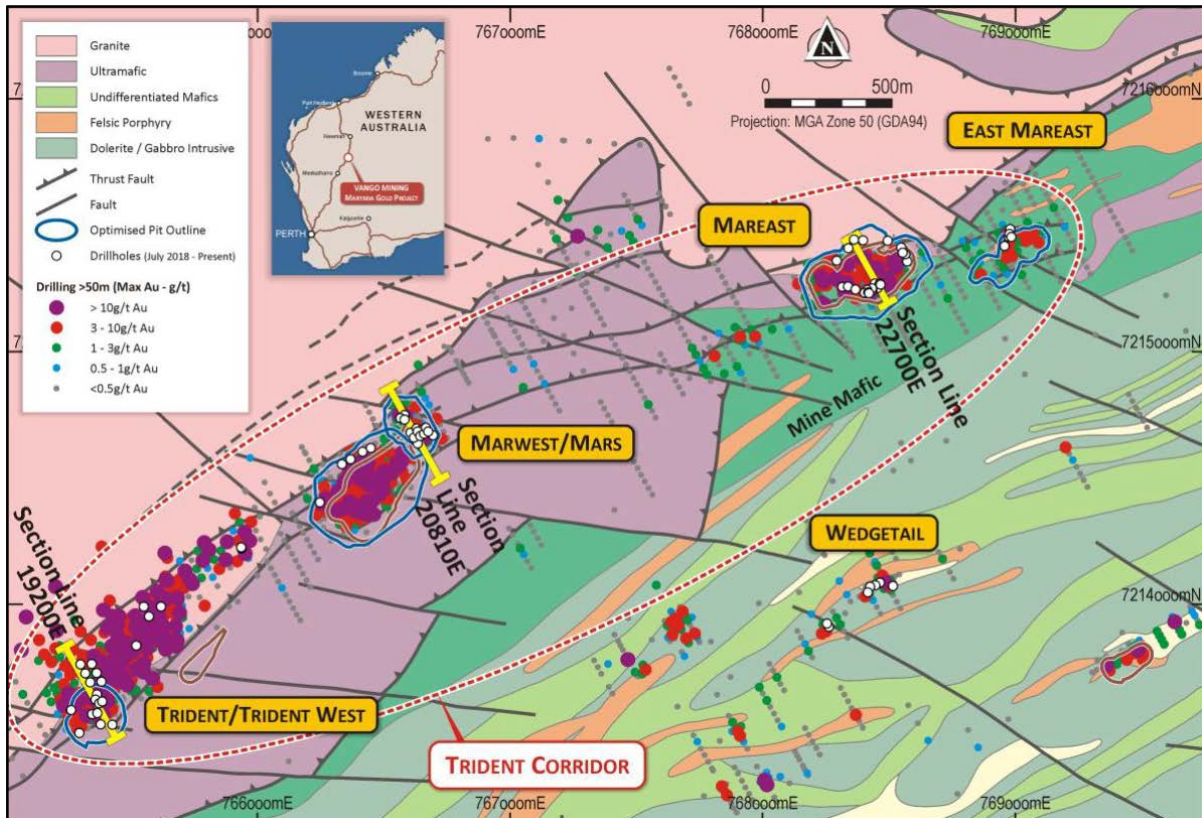
Geological Setting and Mineralisation¹

The Trident corridor extends from the Trident West deposit through Trident in the south, Marwest/Mars and continues to the Mareast and East Mareast deposits in the north (Figure 2).

The Trident gold deposit is a structurally controlled, orogenic, mesothermal (amphibolite metamorphic facies) gold deposit hosted by ultramafic rocks that are part of strike extensions to the Plutonic Gold Mine stratigraphy (Figure 2). The gold deposit is specifically hosted by, shallow to moderate dipping, ultramafic tremolite – phlogopite (mica) schist, immediately overlying serpentinised ultramafic units, derived from higher MgO ultramafic volcanics.

¹ Source: Vango Mining Technical Report (NI 43-101) 9 May 2023

Figure 3: Trident Corridor Geology



High-grade gold zones are best developed within the shallow dipping ultramafic tremolite – phlogopite schist where it is bent into a concave flexure, in the hangingwall of steep, north-westerly dipping fault structures. Vertical “dragging” movement against these steeply dipping faults appear to have played a role in dilating the cleavage of the ultramafic schist, resulting in mineralisation and alteration between the dilated cleavage planes. The steeply dipping faults also host gold mineralisation.

Gold mineralisation is associated with potassic, phlogopite mica, and alteration has a low proportion of quartz and sulphides, including minor pyrrhotite, pentlandite, chalcopyrite and, directly associated with gold, bismuthinite and rare bismuth tellurides. Rarely observed gold grains (in microscopy) are predominantly fine (<50 micron) but free and/or attached to, and rarely occluded within sulphide grains.

Trident West is the up-plunge surface representation of the Trident underground deposit. Like Trident, mineralisation is hosted by, shallow to moderate dipping, ultramafic tremolite – phlogopite (mica) schist, immediately overlying serpentinised ultramafic units, and with a hangingwall of thrustured granite-gneiss that has been eroded away at Trident West.

High-grade gold zones are best developed within the shallow dipping ultramafic tremolite – phlogopite schist where it is bent into a concave flexure, in the hangingwall of steep, north-westerly dipping, fault structures. Gold mineralisation in fresh rock (Trident) is associated with potassic, phlogopite mica, alteration and has a low proportion of quartz and sulphides, including minor pyrrhotite, pentlandite, chalcopyrite and, directly associated with gold, bismuthinite and rare bismuth tellurides. Rarely observed gold grains (in microscopy) are predominantly fine (<50 micron) but free and/or attached to, and rarely occluded within sulphide grains. The Trident West Mineral Resource estimate is predominantly oxide and

transition mineralisation and is demarcated from the Trident underground resource by the optimised open-pit boundary.

The Marwest and Mars deposits are located 1km along strike to the northeast of Trident within the same geological corridor. Mineralisation is hosted by the same ultramafic tremolite-phlogopite schist that is complexly folded and faulted, generally underlain by the serpentinised ultramafic units, and with a hangingwall of thrust granite-gneiss. The Marwest deposit has been previously mined to approximately 80m vertical depth by Resolute Mining as part of their Marymia Project which closed in 2001. Mars is an unmined extension of the Marwest deposit. Two 'shoots' of shallow dipping gold mineralisation have been defined, extending from the oxide zone to fresh rock with the potential to extend down plunge to the southwest towards the Trident gold deposit.

Mineral Resource²

Table 3 and 4 below details the Mineral Resource estimate which has been reported in accordance with the JORC Code.

Table 3: Marymia Gold Project JORC 2012 Mineral Resource Estimate February 2023

MARYMIA GOLD PROJECT JORC 2012 MINERAL RESOURCE ESTIMATE FEBRUARY 2023										
Deposit	Cut-off	Indicated			Inferred			Total		
Mineral Resource - Open Pit (OP):	Au g/t	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz
Trident West OP	0.5	253	1.1	9				253	1.1	9
Marwest & Mars OP	0.5	688	2.0	45				688	2.0	45
Mareast OP	0.5	486	1.9	30				486	1.9	30
EastMareast OP	0.5	237	1.1	8				237	1.1	8
Wedgetail OP	0.5	185	1.7	10				185	1.7	10
PHB-1 (K3) OP	0.5	604	2.0	39	238	1.4	11	841	1.9	50
K1 OP	0.5	743	1.8	42	837	1.7	47	1,580	1.8	89
Triple-P & Triple-P Sth OP	0.5	633	2.1	42	486	1.4	21	1,120	1.8	63
Albatross & Flamingo OP	0.5				853	1.4	38	853	1.4	38
Cinnamon OP	0.5	1,472	1.8	86	536	1.9	32	2,008	1.8	119
Total Open Pits		5,300	1.8	311	2,950	1.6	150	8,250	1.7	461
Mineral Resource - Underground (UG):	Au g/t	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz
Trident UG	3.0	945	9.4	285	645	6.0	125	1,590	8.0	410
K2 UG	3.0	197	10.6	67	177	7.0	40	374	8.9	107
Triple-P & Zone-B UG	3.0				170	4.3	24	170	4.3	24
Total Underground		1,142	9.6	352	992	5.9	189	2,134	7.9	541
Total JORC 2012 Mineral Resource		6,442	3.2	663	3,942	2.7	339	10,384	3.0	1,002

Table 4: Marymia Gold Project JORC 2012 Mineral Resource February 2023 Oxide, Transition and Fresh

MARYMIA GOLD PROJECT JORC 2012 MINERAL RESOURCE ESTIMATE FEBRUARY 2023													
Deposit	Cut-	Oxide			Transition			Fresh			Total		
Mineral Resource - Open Pit (OP):	Au	K	g/t	K Oz	K	g/t	K Oz	K	g/t	K Oz	K	g/t	K Oz
Trident West OP	0.5	12	1.2	0.5	189	1.0	6.2	51	1.2	2.0	253	1.1	9
Marwest & Mars OP	0.5	10	2.1	0.7	162	2.0	10.6	515	2.0	33.2	688	2.0	45
Mareast OP	0.5	10	1.5	0.5	451	1.9	27.9	25	2.2	1.7	486	1.9	30
EastMareast OP	0.5	224	1.1	8.0	13	0.9	0.4				237	1.1	8
Wedgetail OP	0.5	154	1.7	8.3	31	1.7	1.7				185	1.7	10
PHB-1 (K3) OP	0.5	287	1.5	14.1	392	1.9	23.7	162	2.4	12.4	841	1.9	50
K1 OP	0.5	350	1.5	17.0	780	1.6	41.1	450	2.1	31.0	1,580	1.8	89
Triple-P & Triple-P Sth OP	0.5	189	1.2	7.4	293	1.5	13.7	637	2.1	42.3	1,120	1.8	63

² Catalyst Metals Limited ASX Announcement, 22 February 2023, Marymia Gold Project Mineral Resource

Albatross & Flamingo OP	0.5	606	1.3	24.8	239	1.7	13.0	8	1.7	0.4	853	1.4	38
Cinnamon OP	0.5	513	1.6	26.9	470	1.8	26.7	1,025	2.0	65.1	2,008	1.8	119
Total Open Pits		2,354	1.4	108	3,021	1.7	165	2,875	2.0	188	8,250	1.7	461
Mineral Resource - Underground	Au	K	g/t	K Oz	K	g/t	K Oz	K	g/t	K Oz	K	g/t	K Oz
Trident UG	3.0							1,590	8.0	410	1,590	8.0	410
K2 UG	3.0							374	8.9	107	374	8.9	107
Triple-P & Zone-B UG	3.0							170	4.3	24	170	4.3	24
Total Underground								2,134	7.9	541	2,134	7.9	541
Total JORC 2012 Mineral		2,354	1.4	108	3,021	1.7	165	5,009	4.5	729	10,384	3.0	1,002

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Geotechnical

In December of 2019, Peter O'Bryan & Associates completed a preliminary geotechnical assessment of underground mining at the Trident Deposit. Some aspects of the design, such as decline dimensions, and drive profiles have been adjusted since this study was conducted, however the key recommendations have been followed. There is also reference to open pit mining which was considered as part of the previous study, but is no longer applicable for this Scoping study.

Entech recommend that an updated geotechnical study is required when CYL advance to the next level of study.

This section of the report is the executive summary from the preliminary geotechnical assessment document.

Ground conditions influencing development and production in proposed underground mining within the Trident Deposit have been investigated using:

- Current geological interpretations
- Review of the Trident site
- Empirical methods and experience in identifying possible stoping methods
- Inspection of core photographs from geotechnical cores
- Structural geological data obtained from geotechnical cores
- General geotechnical data obtained from exploration/ resource definition cores
- Experience in geotechnical assessment and review in similar geological and geotechnical settings.

Assessment and analysis of future underground access development and stoping have been based on:

- Consideration of general geological conditions
- Structural geological assessment
- Kinematic stability analysis for underground openings
- Empirical assessment of achievable stoping spans (without and with artificial support)
- Pillar stability assessment
- Experience-based assessment of expected pit wall conditions above and around the proposed decline portal position.

Ground Conditions

Underground opening stability at Trident will be governed by local structural geological conditions and the strength of the rock units exposed in, or located close to, the opening. Given the depths relatively shallow depths at which mining will be performed, rock stress magnitudes are expected to be moderate.

Further Geotechnical Assessment

Assessment to date has been based on information derived from exploration cores and the amount of information available varies across the deposits assessed. There are needs for further pre-mining investigation to confirm/ refine or adjust the inferences/ assumptions made to date.

As well as pre-mining investigation, it is considered essential that design re-assessments, and where necessary design adjustments, be made based on observational techniques (mapping and wall stability monitoring) employed during future pit development.

Regular geotechnical review of ground conditions during operations is recommended.

Hydrology

In October 1997, Woodward-Clyde conducted a groundwater investigation and discovered a relatively high east-west aquifer transmissivity to the north of the proposed decline area. The primary factors influencing the porosity and permeability of the aquifer were identified as follows:

- The over-thrust granitoid units.
- The sheared contact zone between the granitoid units and the underlying ultramafic units, which dips in a north-westerly direction.
- The cross-cutting faults running in a north-south direction.

Rockwater recently conducted a study to evaluate the hydrogeological conditions related to the proposed underground mining. The study determined that groundwater primarily occurs within the weathered profile and the fractured contact between the granite and ultramafic units. Some drillholes indicated that the upper contact of the ultramafic interval had experienced weathering, likely due to water flow along the fractured contact. Based on core photographs showing minimal fracturing in the ultramafic rocks and the absence of mineral deposits on fracture surfaces, it was inferred that the underlying rock mass is predominantly dry, indicating a lack of significant groundwater flow. Drillers' comments from recent drilling support this observation, stating that there is only minor or negligible water inflow below the granitoid shear contact.

In Rockwater's sensitivity analyses, it was determined that the rate of underground dewatering could range from 2 to 7 litres/second depending on the parameters used for analysis. It is important to note that the modelling assumed no intersection between underground development or stoping activities and any shear or fault structure (including known or suspected cross-fault structures) that could hydraulically connect with the main shear zone at the granitoid contact. This also includes the assumption that ungrouted geotechnical and exploration drillholes would not introduce any inflow.

Mining methods

Introduction

Entech selected suitable mining methods for mining of the Trident orebody based on a combination of key geological and geotechnical factors, in combination with findings from the Carras Mining study.

The conditions and constraints that guided the underground mining method selections were as follows:

- Underground workings will be accessed through a portal in the Marwest pit;
- Mixture of subvertical and flat dipping mining areas;
- High grade nature of the orebody; and
- Findings of previous studies, including geotechnical findings and recommendations³.

Mining methods assessed aim to utilise standard high-capacity mobile underground mining equipment. Production level intervals were selected to match the limitations of the proposed mining fleet as well as orebody geological and geotechnical properties.

The high-grade nature of the orebody means that maximising orebody extraction is of key importance. To achieve higher orebody extraction, a method utilising backfill is necessary given the anticipated geotechnical conditions.

An engineered cemented fill is recommended due to the varying orebody widths, anticipated wall exposures, flat dipping areas of the orebody being unsuitable to other backfill types, and ability to achieve greater extraction and lower dilution.

The Trident underground is proposed to be accessed via the existing Marwest pit. A recent geotechnical inspection of the pit has been conducted, identifying minor clean up works and ground support requirements, and a potential portal location has been identified. Cost allowance has been made for the clean-up of the Marwest pit. Geotechnical drilling has been planned for assessment of final portal and decline position.

Initial Cut-Off Grade Estimation

Previous mining study findings calculated a 3 g/t incremental cut-off grade for stope optimisation. On this basis CYL completed a set of stope optimisations at 3 g/t which Entech utilised in the final mine design and scheduling.

Review of the mining costs and revenue inputs described in the previous study were deemed appropriate, and the cut-off grade suitable, for use in this scoping study.

Stope Shape Generation

Entech reviewed, and have found suitable, the stope optimisations provided by CYL. The variable nature of the orebody means that sub level spacing varies throughout the orebody. For this reason, the shapes resulting from the stope optimisations were then combined over different vertical and horizontal extents depending on the applied sublevel in that area. The sublevel extents vary from 5 m in flat lying areas to 15 m in sub-vertical dipping parts of the orebody. On progression to the next level of study it is recommended to re-run the stope optimisation process to better align to the sub level intervals, however this is not material to the study outcome.

³ Preliminary Geotechnical Assessment Underground Mining Trident Deposit - Peter O'Bryan and Associates.

MSO parameters

Mineable stopes were designed by CYL using the following process:

- Use stope COG.
- Create optimised stope shapes using Deswik's Stope optimiser (DSO) mining software.
- Combine stope sections where appropriate to match the sublevel spacing.
- Using the 5 m sections produced by the software, design stopes to adhere to the geotechnical parameters (post optimisation mining factors applied).

DSO utilises several parameters to produce an optimised stope shape. These parameters include, but are not limited to, COG, minimum mining width, and amount of unplanned dilution. Dilution and recovery factors were applied post optimisation. DHi SO parameters for selective mining areas are shown in Table 5.

Table 5: LHS Mining Areas

Stoping Parameter	Value
Stoping COG (g/t Au)	3.0
Min. Mining Width (m)	4.0
Vertical Level Interval (m)	5-15
Section Length (m)	5-6
HW Dilution (m)	0
FW Dilution (m)	0
Min. Parallel Waste Pillar Width (m)	10

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Underground Development Design

The mine access and development has been designed to suit the selected mining strategy and focusses on operational efficiency. The mine design utilises design work from the most recent internal mining study in combination with the CYL optimisation shapes. All aspects have been reviewed by Entech and deemed suitable for the primary goal of the generation of a software-based mining schedule, estimation of mining costs, and project economic evaluation.

The mine is planned to be accessed by a decline portal located in the Marwest Pit with the lateral development layout as illustrated in Figure 4, Figure 5 and Figure 6.

Figure 4: Long Section Looking South - Trident Underground Development Layout

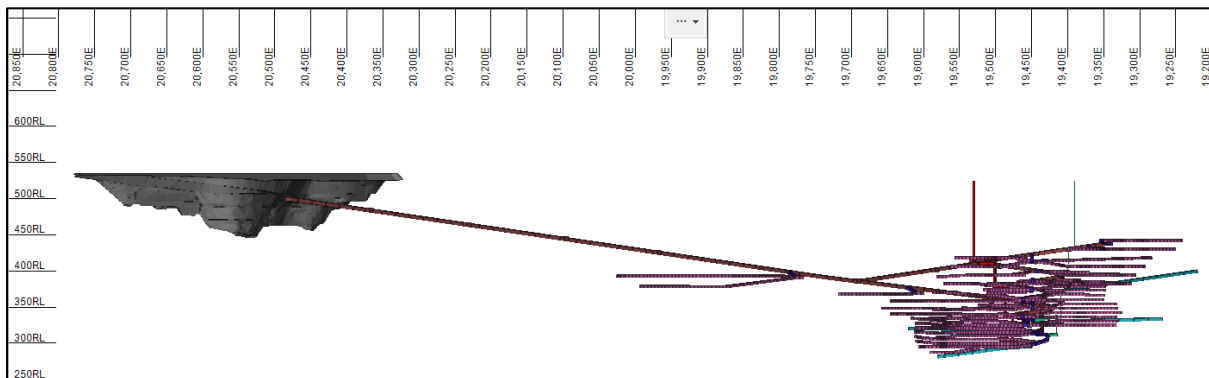
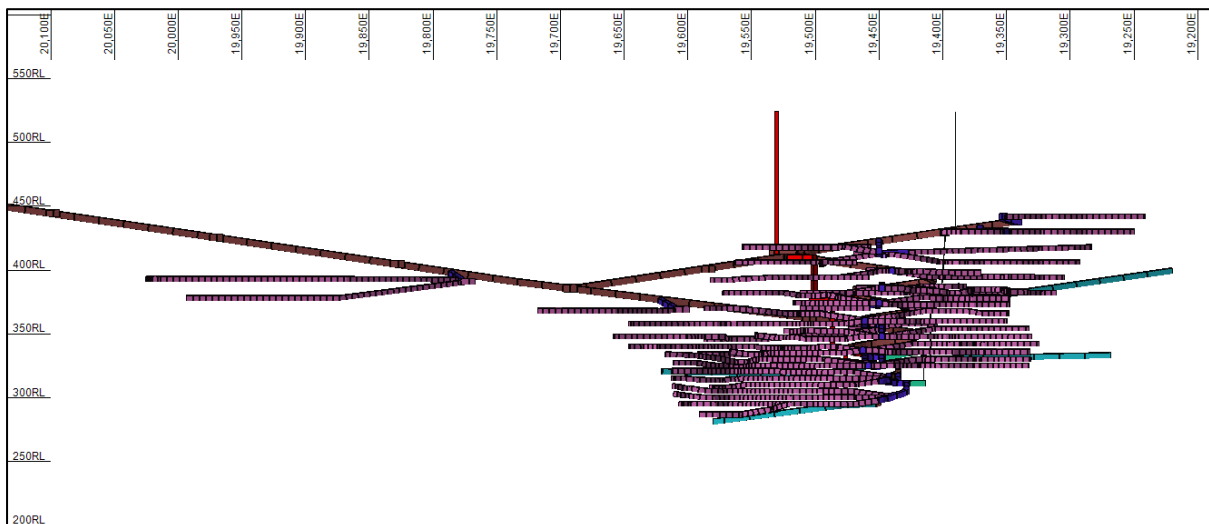
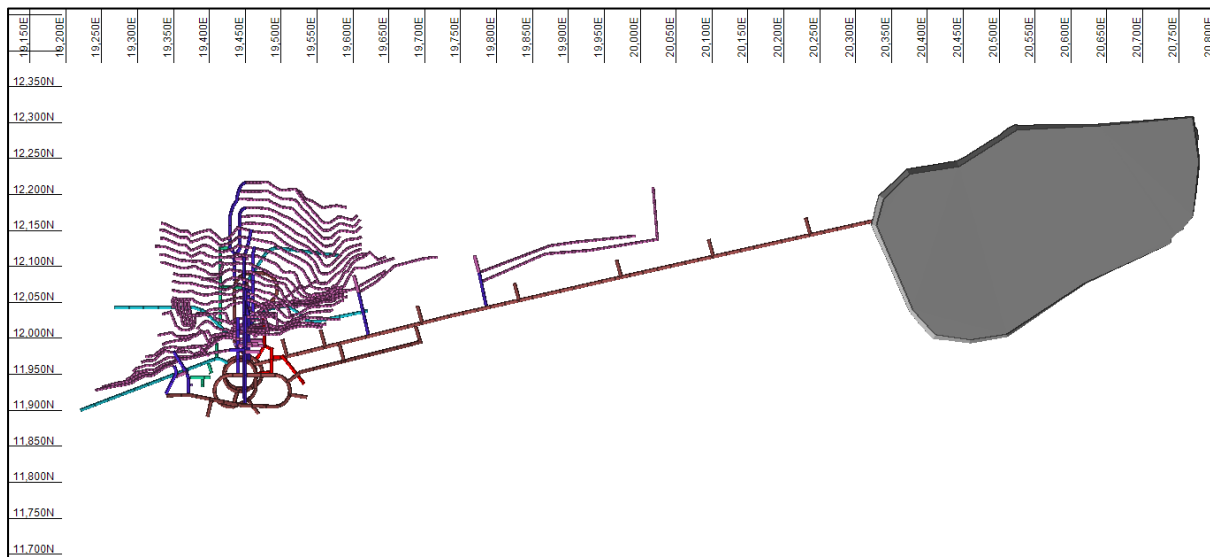


Figure 5: Enlarged Long Section Looking South - Trident Underground Development Layout



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Figure 6: Plan View - Trident Underground Development Layout



The decline profile for the new access decline from Marwest Pit is designed at 5.5 mW x 5.8 mH to accommodate use of up to a 60 t truck. Decline gradients are at -1:7, and decline standoffs to the orebody vary from 20-40 m and are maintained at a 40 m stand-off where possible.

Lateral development is planned to be mined by twin boom jumbos, and vertical development excavated by conventional raisebore machines.

Mine Access and Level Design

The mine is planned to be accessed via a portal to be established within the Marwest pit. There is currently no planned interaction of any mining activity in the pit and the Trident underground, and Marwest is proposed as a portal location only.

A semi-arched profile decline (with rounded shoulders), with a width of 5.5 m, height of 5.8 m and a shoulder radius of 1.0 m has been applied, allowing sufficient room to accommodate a high capacity underground truck as well as the required secondary ventilation ducting and service piping. It is expected that minimal ground water will be encountered in the process of developing the decline across to the Trident orebody.

The access to each level varies in length depending on the level, and ore body dip of the respective area.

Ore drives have a profile of 4.2 mW x 4.5 mH. In execution, a shanty back profile has been recommended in the geotechnical report and it is recommended that this is incorporated into the design in the next study.

Vertical Development

Vertical development is separated into capital and operating development. Capital development consists of escapeway rises, and ventilation return rises. The surface leg of the escapeway rise is planned at 1.3 m diameter to be excavated with a conventional raisebore excavation. The surface leg of the ventilation return rises are planned as 4.0 m diameter conventional raisebore excavations. Internal ventilation return raises could utilise longhole rises and would require modelling in an appropriate ventilation software package in the next study.

Operating development consists of stope slots which are excavated utilising 1.8 m x 1.8 m longhole rises of up to 15 m lengths which are accounted for in the production drill factor.

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Materials Handling

The material handling requirements are based on a 60 t trucking fleet. All ore material from the underground is planned to be hauled to the temporary surface ROM and then hauled via surface fleet to the Plutonic processing facility. Waste material will be stored on the Waste Rock Landform.

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Underground Production target

1,100,000 t @ 6.7 g/t for 230,000 oz gold contained is the Production Target⁴. The estimate is based on an underground mine plan that includes Inferred Mineral Resource. The Production Target forms the basis of the LOM (life of mine) production plan. Use of the term ore in this document refers to Mineral Resource included in the Production Target, and does not represent or imply an Ore Reserve. Ore Reserve estimation was not included in this study.

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⁴ Production Target is defined as resource material (inferred, indicated and measured categories) that can be economically mined after applying the modifying factors being mining, metallurgical, economic, marketing, legal, environmental, social and governmental considerations.

Underground Mine Schedule

An integrated life of mine design was prepared using Deswik mine planning software. The software incorporates functionality to export all design and block model interrogation data to the scheduler, including volumes, tonnes, grades, and segment lengths. Furthermore, graphical sequencing is exported for the critical links between all development and production activities.

The mine is planned to produce at a peak rate of ~360,000 t per annum. The mine life is ~5 years with peak production reached in year 3 of production.

To ensure overall mine production rates are achievable, activities associated with the mining works were scheduled in a logical sequence using the rates discussed in this Scoping Study.

A summary of the key mining physicals and schedule is detailed in Table 6 below.

Physical	Units	Total	1	2	3	4	5
Total Lateral Development	m	12,327	2,402	3,120	3,267	3,029	509
Total Vertical Development	m	403	0	281	75	47	0
Production Drilling	drm	233,794	0	29,240	69,456	78,417	56,681
Waste Tonnes	t	560,855	180,705	173,117	73,977	108,993	24,063
Backfill Tonnes	t	422,232	11,563	65,358	130,068	140,873	74,370
Total Ore Tonnes	t	1,073,343	15,393	158,086	341,323	360,196	198,346
Total Ore Grade	Au (g/t)	6.7	3.0	5.7	6.4	6.7	8.1
Total Ore Metal	Au (Oz)	229,521	1,500	28,980	69,793	77,279	51,969
Indicated Ore Metal	Au (Oz)	209,587	0	23,278	66,988	69,028	50,294
Inferred Ore Metal	Au (Oz)	19,934	1,500	5,703	2,804	8,252	1,675
Haulage	tkm	2,460,458	247,282	466,232	637,030	749,489	360,423

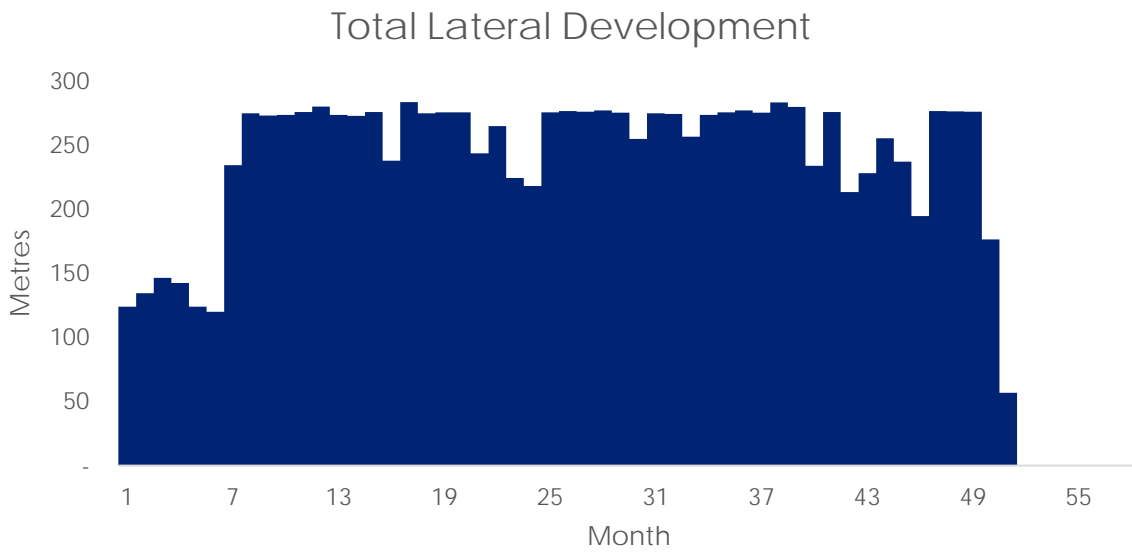
Table 6: Key Physicals per Annum

Jumbo Development

The life of mine horizontal development schedule is shown in Figure 7.

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Figure 7: Lateral Jumbo Development Metres by Month



Advance rates have been assigned to development drives according to priority, with the remainder of a jumbo’s available metres being distributed according to mining sequence.

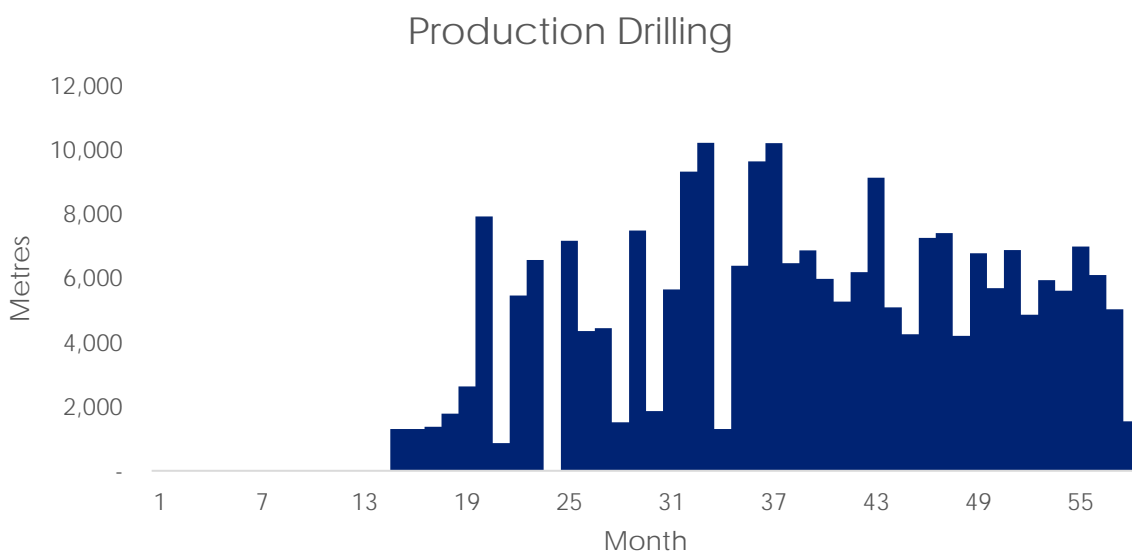
Task priorities followed were:

1. Establish primary ventilation drive / escapeway.
2. Establish primary ventilation.
3. Push decline to establish multiple production horizons; and
4. Develop ore drives as required for stoping.

Production Drilling

The life of mine drilling schedule is shown in Figure 8.

Figure 8: Production Metres by Month



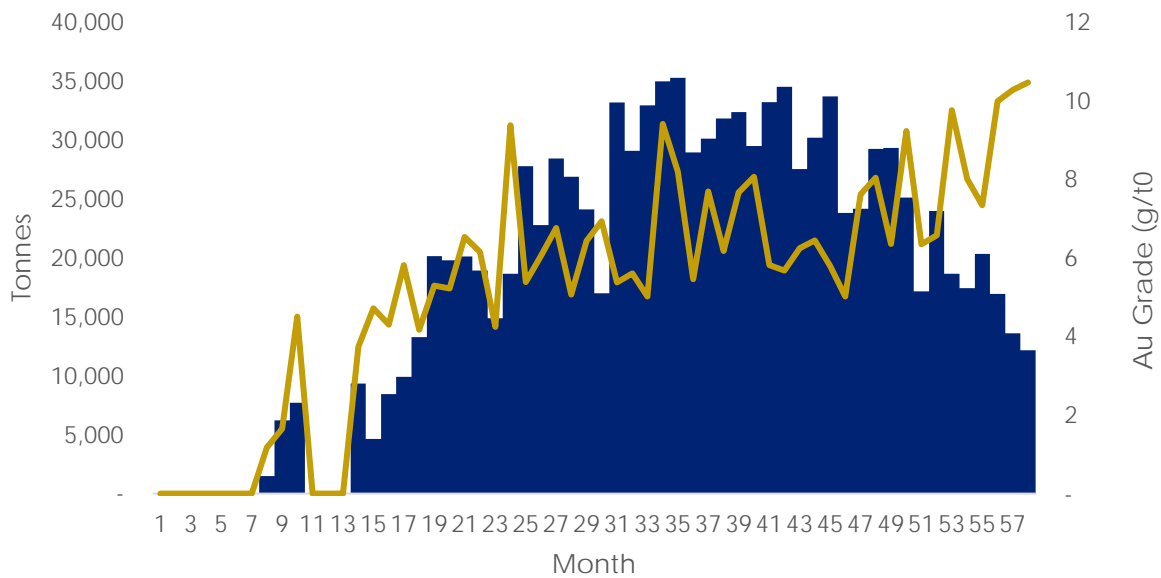
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Production drilling requirements will ramp up to a peak 10,000 m per month, however further optimisation of the stoping areas will allow a more smoothed profile which would likely result in an average of ~8,000 m/month.

Bogging

Ore bogging commences in Month 8, and production ramps up reaching full production in month 30. The life of mine ore production profile in Figure 9.

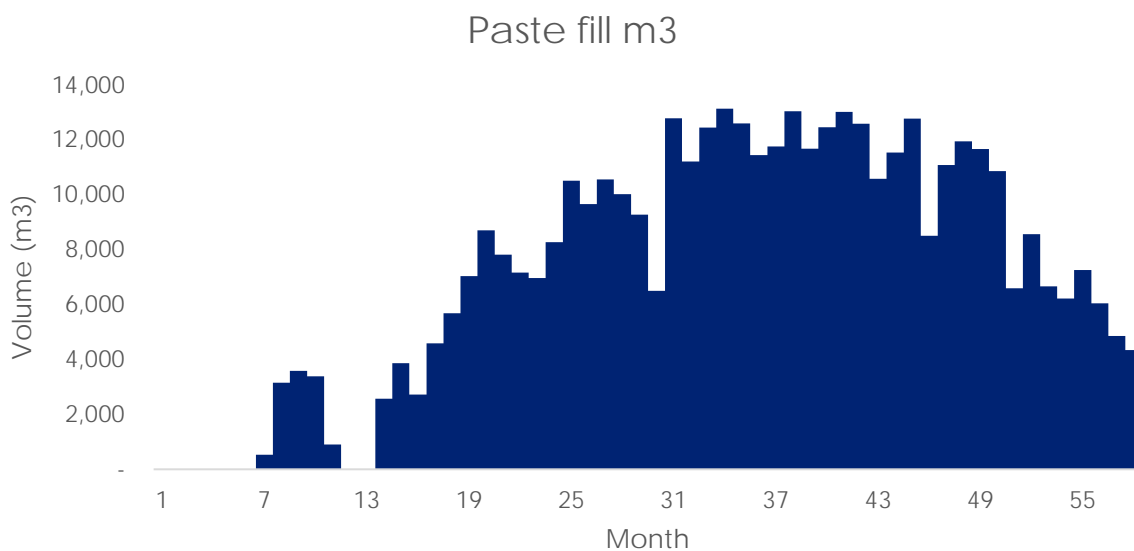
Figure 9: Monthly Ore Tonnes and Grade



Backfilling

Backfilling of stopes is carried out with a paste fill product, and the monthly volumes are shown in Figure 10.

Figure 10: Paste Fill by Month

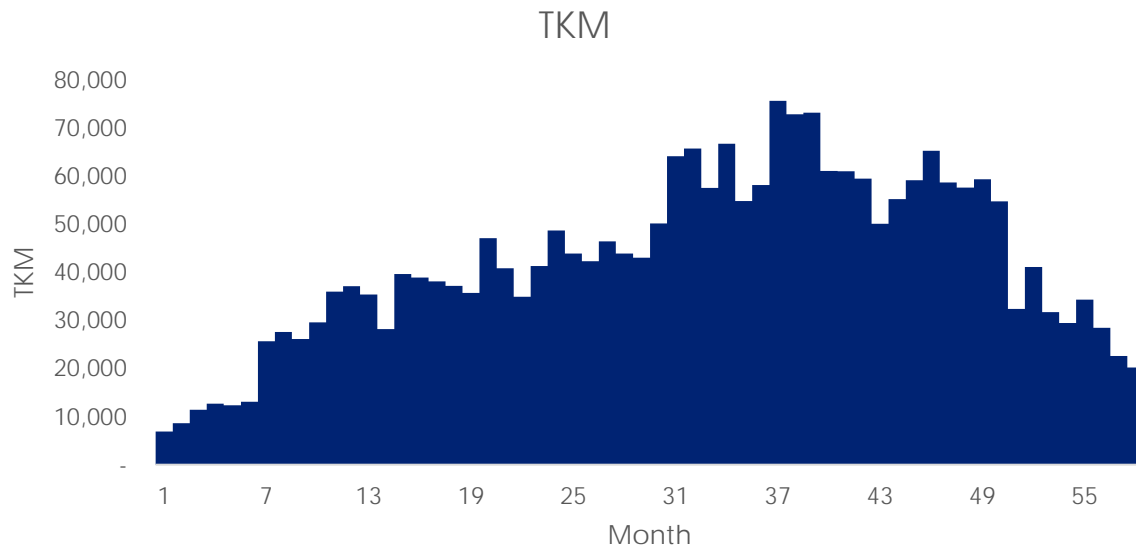


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Haulage

The haulage requirement from the mine, inclusive of all ore and waste material is illustrated in Figure 11 and is stated on a tkm basis.

Figure 11: Underground Tkm by Month



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Mining and Support Infrastructure

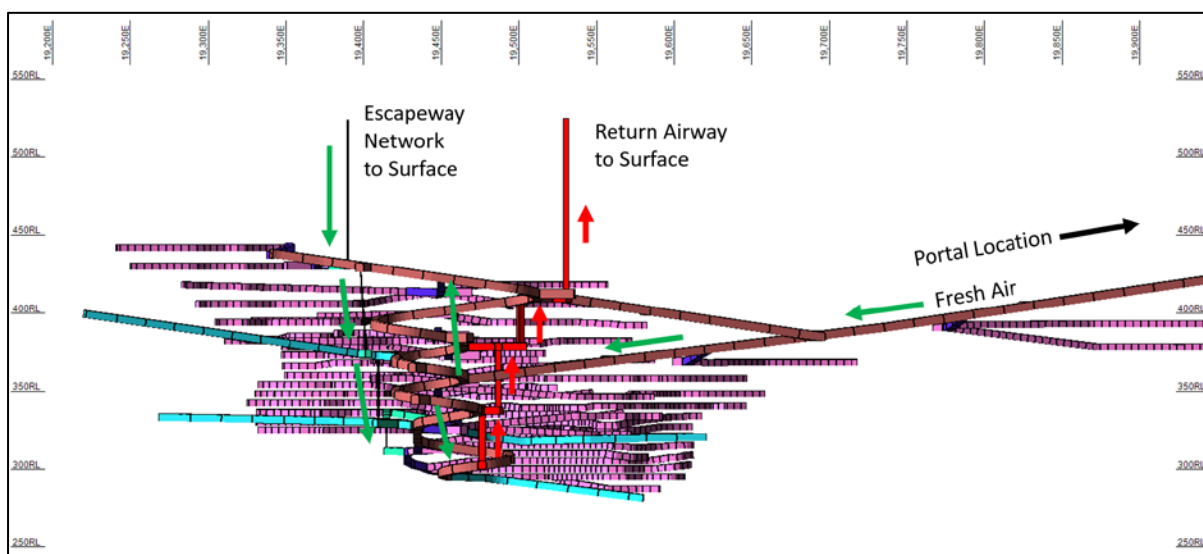
Underground Infrastructure

Ventilation

Ventilation requirements have not been modelled in a ventilation modelling software, and have been estimated by Entech. Software ventilation modelling of the mine plan is recommended in the next stage of the study. The proposed ventilation network for the Trident underground is relatively simple.

The primary ventilation network is shown in Figure 12 below, where fresh air enters the mine depicted by the green arrows and exhaust air flow follows the red arrows and is dispelled via the return air rises to surface.

Figure 12: Primary Ventilation Flows



Second Means of Egress and Refuge Chambers

A second means of egress from the underground mine will be established to enable personnel to exit the mine in case that one egress (e.g., decline) becomes blocked. In order to ensure that all personnel are able to reach a decline connection drive, ladderways will be installed in the raise-bored escapeway rises.

In certain cases, escaping the mine via a second means of egress in an emergency situation may not be possible or may not be safe. Some examples would be a mobile equipment fire that creates large amounts of smoke, which would prevent the use of the escape ladderways or blockage of a single-entry heading preventing personnel in that heading from escaping the drive.

In order to provide refuge for underground personnel in such circumstances, re-locatable refuge chambers will be installed in the mine. The chambers will vary in size from four to 12-man capacity and Catalyst will follow recommendations in the Guideline for Refuge Chambers in Underground Metalliferous Mines, Section 4.1, WA Department of Mines and Petroleum, 2008.

Electrical Power

The main high voltage (HV) feed to the underground mine will be supplied from a 1MVA surface substation. The long term HV feed could be reticulated through mine service holes to avoid long cable runs down the decline. Removing the cable from the decline also removes it as a hazard as it is less likely to be hit by heavy equipment.

This underground feed will be distributed through the mine at 11kV to a single 1MVA (megavolt ampere) 11kV / 1kV step-down transformer. Power supply to the primary underground fans will be via a single 1MVA 11kV / 415V transformer.

Peak power requirements are anticipated to reach ~1.2 MW.

Dewatering

It is estimated that the maximum dewatering rate for the underground mine will peak at approximately 10 L/s including all mine service and ground inflow water.

The proposed dewatering system for the underground mine has the capacity to dewater the mine at a rate of up to 20 L/s, which will meet the currently estimated maximum requirements and will enable timely dewatering of the workings during periods of increased water flows or localised flooding of headings. A further hydrology study is recommended as part of the next study.

Surface Infrastructure

Run of Mine (ROM) Pad

A localised ROM (run of mine) Pad is to be established close to the pit crest, all ore from the mine will be transported to the surface via trucks. Material at the localised ROM stockpile will then be loaded onto a surface haul truck to be delivered to the ROM pad adjacent to the processing plant located at the Plutonic deposit.

Waste Rock Landform

Waste material generated from the underground mine will be direct tipped onto a surface Waste Rock Landform (WRL). The WRL footprint will be sufficient to account for the planned underground waste volume (~300,000 m³).

There is no anticipated Potentially Acid Forming (PAF) waste. Waste material will also be used to create road base for underground usage as well as general construction material.

Workshops

Mining workshops, associated surface facilities and tooling and the costs associated with workshop operations have been included in the rates applied in the cost estimate for the underground mine.

Fuel Storage

Diesel will be stored on surface licensed facilities provided and are included in the rates.

Explosives Storage

A surface magazine compound will be used for underground mining. It will consist of a cleared area and fence.

Two types of licence relating to the storage and use of explosives and ammonium nitrate will be required:

- Dangerous Goods Business Licence (for the storage of explosives and ammonium nitrate); and
- Dangerous Goods Shotfirer Licence.

Plutonic Mine Infrastructure⁵

The Trident Development will utilise existing support infrastructure at the Plutonic Gold Mine.

⁵ 2022 Mineral Resource and Reserve Estimate for the Plutonic Gold Operations (NI 43-101).
www.superior-gold.com/operations/#reserves-and-resources

The Plutonic Gold Mine is a well-established mine which has services and infrastructure consistent with an operating mine in an isolated area.

- The mine can be accessed by aircraft or by road. The airstrip is adjacent to the site and there is an aircraft fuel tank and fuelling facility at the airstrip which is currently not being used.
- Freight is brought to site by transport trucks using the all-weather gazetted Great Northern Highway.
- Electricity is generated on-site by means of a gas-powered generating station (six units) which supplies all power requirements within the vicinity of the camp and processing plant. A backup diesel power station is also maintained.
- Water requirements for dust suppression and road maintenance during mining activities are supplied from water sources in the existing Salmon pit, the Main Pit or main borefield supply line.
- Potable water requirements are provided on-site using a reverse osmosis system installed at the processing plant.
- Plutonic operates as a fly-in/fly-out operation and maintains a camp on site for the employees and contractors.
- The camp has capacity for 500+ persons, and includes wet and dry mess facilities, a recreational oval, gymnasium, and entertainment room.
- All buildings and facilities required for extraction of the Mineral Reserves are in place and operational.
- The mine site has a communication network of mobile telephones and licensed UHF radio repeaters within the Main Pit mining area and village facilities. Outside these areas, communication is by means of radio or satellite phone only.

Access roads

The Plutonic-Marymia tenements have existing access roads in good condition. A route between Trident and Plutonic already exists and it anticipated that these access roads will serve as a suitable haulage and service road between the Plutonic mill, and the Trident deposit and associated infrastructure.

Detailed assessment of these access roads will be required in the next phase of study to assess the suitability of these for heavy haulage.

Tailings Storage Facility

Tailings from the CIL circuit gravitate to the carbon safety screen. Screen oversize gravitates to the clean-up sump and is returned to the circuit. Screen undersize is piped into a splitter box where the slurry is directed to either the tailings thickener, to bypass the thickener directly to the tailings pump hopper, or to the paste backfill plant.

The tailing thickener is a 15 m diameter, high rate Supaflo thickener. Flocculant (Magnafloc 5250) is added to the thickener feedwell to agglomerate the fine particles and aid solid/liquid separation. Solids at a density of 55% to 60% solids are removed from the thickener underflow and piped to the tailings disposal pump hopper. Water is recovered from the thickener overflow launder, directed into the thickener overflow tank, and pumped to the process water dam for utilisation in the grinding and leach circuits.

The thickened tailings were pumped to a variety of locations for disposal, using variable speed, centrifugal pumps (one operating, one standby). The hopper level is measured by an ultrasonic meter and the pump speed varied to maintain a set level. There is provision to flush the tail lines using water from one of several options.

Currently tailings are sent to a paddock style TSF. There are three paddock-style TSFS.

TSF1 is reclaimed, TSF2 and TSF3 can be operated. All in-pit tails facilities have been filled and tailings pipework retreated back to the current paddocks storage facilities. A recently completed wall raise on TSF3 has provided additional capacity.

TSF4 expansion work is scheduled to commence in 2023 to allow progression from TSF2 to the new facility. All relevant permits from DWER and DMIRS have been secured.

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Metallurgy and Processing

Trident underground metallurgical testwork

Metallurgical testwork has been performed on the Trident orebody, as well as nearby orebodies, such as the Triple P, K1 and K2 by several mining companies over the past 30 years. These ores have successfully been treated at the Marymia (decommissioned) and Plutonic (operational) plants.

Testwork, commissioned by Como Engineers and conducted by ALS Metallurgy, Report A19022, showed that the Trident fresh ore is suitable for treatment via a typical crush, grind and leach process, with final gold recoveries being ~90%, as shown in the table below.

Table 7: Summary of cyanidation testwork – Trident Underground

PLUTONIC DOME COMPOSITE: DIRECT CYANIDATION TESTWORK										
Composite ID	Test No. (JR)	Grind Size P ₈₀ (µm)	% Au Extraction @ hours				Au Grade (g/t)		Consumption (kg/t)	
			2	8	24	48	Calc'd Head	Leach Residue	NaCN	Lime
PD Composite	3853	106	82.88	85.98	89.31	89.93	8.89	0.90	0.82	0.20
	3854	75	82.96	85.04	88.21	89.85	8.43	0.86	0.95	0.18

The samples selected were high grade assaying at ~7.38g/t and having calculated grades of 8.89g/t and 8.43g/t, with almost 90% being extracted after 48 hours of leaching, of this, almost 82% was extracted after only 2 hours of leaching and ~89% after 24 hours. The grind size for these tests was a P₈₀ pf 106µm and 75µm, which is typical for processing gold ores.

Cyanide consumption is considered medium to high at 0.82kg/t and 0.95kg/t and the lime consumption was very low at 0.20kg/t and 0.18kg/t.

While the overall recoveries of the Trident ore were high at ~90%, the leach residue grades also contained elevated levels of gold, at 0.90g/t and 0.86g/t. A short diagnostic leach test was performed on the residues and it showed that most of the gold was recovered via aqua regia, indicating that the gold in the residue is likely associated with sulphides.

Additionally, testwork performed on Trident West ore, sample ID VTRMET0100 identified as oxide to transitional ultramafic rock, ALS Metallurgy report A19640, showed very high gold recoveries at varying cyanide concentrations and grind sizes, with leach residue grades varying from 0.03g/t to 0.07g/t from head grades between 1.85g/t and 2.07g/t. Indicating that the metallurgical characteristics of the Trident orebody change at depth and lithology.

Hardness testing of the Trident underground ore showed that the Bond Ball Mill work index of the Trident fresh ore was 13.3kWh/t. This is considered medium and is consistent with an ultramafic orebody.

Based on the available metallurgical testwork on Trident fresh ore alone, the metallurgical recovery assumption should be 89%, being the average recovery of the two tests after 24 hours of cyanidation, with the consideration that additional testwork is required to better understand the gold leaching within different areas of the defined orebody.

Process Plant Strategy

Processing of the Trident underground ore is to be via the Plutonic, PP1 processing plant.

The Plutonic processing plant is an established processing plant consisting of a three (3) stage crushing circuit, followed by a primary SAG mill, then two (2) secondary ball mills, for a nominal throughput of 210tph, or ~1.7Mtpa annualised with a target P_{80} of 75 μ m.

The cyanidation circuit consists of two (2) leach tanks and six (6) CIL carbon adsorption tanks, each having a volume of 1,020m³, giving a nominal residence time of ~24 hours at 210tph.

Cyanidation tailings are thickened prior to discharge to the tailing storage facility.

Major reagents added are typical of a gold processing plant, being lime, cyanide, oxygen and lead nitrate. Processing is conducted in good quality raw water sourced from two main production borefields as well as process water returned from the tailings thickener and tailing storage facility.

Given that the Plutonic plant is an established operation, historical operating costs are generally well understood and reliable. A review of recent operating costs, suggest that the processing OPEX for Trident via the Plutonic plant is \$20.50/t.

It is important to note that the Trident underground ore will form part of an overall blend of the feed to the Plutonic mill and will unlikely be a sole source of feed.

Environment and Heritage

Overview

Trident is proposed to be an underground mine as part of the larger Marymia Project located on M52/217 within the Marymia Pastoral Lease. Access to the underground workings will be via a portal within the existing Marwest Pit, where a decline will be created to the Trident deposit.

Trident does not intersect any Environmentally Sensitive Areas (ESAs), Crown Reserves or conservation estates. The Project is located in two subregions of the Gascoyne IBRA Bioregion being Carnegie (GAS2) and Augustus (GAS3). The subregions are characterised by:

- GAS2 - Shallow earthy loams over hardpan on the plains and shallow stony loams associated with ranges. Low Mulga communities occur on hills and plains, samphire and saltbush steppes are associated with salt lakes, while ranges are dominated by Mulga scrub and Eremophila shrublands (Cowan, 2001).
- GAS3 – Extensive areas of alluvial valley fill deposits. Mulga woodland with Triodia occur on shallow stony loams on rises, while shallow earthy loams over hardpan on the plains are covered by Mulga parkland (Desmond et al., 2001).

Heritage and Environment

Native Title

The Project lies within the Gingirana Native Title Determination (WCD2017/011) and is managed by the Marputu Aboriginal Corporation. The mining tenement for Trident, M52/217, is listed on Schedule 4 of the Extract from the Native Title Register as *Other Interests – Mining Interest*. Other interests are subject to Order 9 of the Determination that has been interpreted that the Project is not required to have an Indigenous Land Use Agreement (ILUA), however Catalyst has advised they will engage with the Marputu People throughout Project development.

Heritage

A search of the DPLH AHIS on 21 June 2023 detailed eight Registered Aboriginal Sites within M52/217 (DPLH, 2023 as shown in Figure 13. Registered Aboriginal Site 768 (Minnieritchie 01) covers the existing Marwest Pit (location of proposed portal to Trident) and is described as Artefacts/Scatter. Consent under Section 18 of the *Aboriginal Heritage Act 1972* was approved to undertake mining activities within M52/217.

Aboriginal heritage clearance surveys will be required prior to any future land disturbance activities. Disturbance to Aboriginal cultural heritage requires approval under the *Aboriginal Cultural Heritage Act 2021*, which comes into effect 1 July 2023.

Environment

Environmental studies completed over the Trident area have documented:

- Soils profile of red-brown duplex consisting of a relatively shallow A1 horizon with textures ranging from sandy loam to clay loam with low to moderate gravel content (MBS, 2019.b.).
- Surface soils contained elevated concentrations of extractable cobalt (2.1 to 3.7 mg/kg) likely influenced by underlying bedrock at sample locations. However, are unlikely to be significant for native plant nutrition during rehabilitation (MBS, 2019.b.).

- Subsoils are moderately dispersive and non-sodic therefore should only be used as cover material for flat surfaces and not placed on slopes during closure (MBS, 2019.b.).
- A flood assessment of a 1-in-100 year flood would be of moderately high flow and extent. A minimum one metre high bund was recommended to be constructed to prevent local water flowing into open pits on M52/217 (Rockwater, 2019.b.).
- Groundwater level of 573 mRL with a predicted dewatering rate of 300 kL/day (Rockwater, 2019.a.).
- Groundwater is relatively fresh, near-neutral and dominated by calcium and bicarbonate ions. Samples exceeded the aesthetic guideline limits for Total Dissolved Solids (TDS) and hardness, and health guidelines for arsenic and nitrate, typical of groundwater in the area (Rockwater, 2019.a.).
- Test work identified potential actinolite and/or tremolite asbestos embedded in ultramafic geology. Further analysis identified asbestiform material throughout the entire ultramafic unit requiring appropriate fibre management measures to be undertaken (MBS, 2019.a.).
- Tailings were not assessed for fibrous materials, however are considered likely to contain similar, if not higher, asbestos concentrations (MBS, 2019.a.).

A detailed flora and vegetation survey was completed over the Trident project area in 2019 by Onshore. The survey, consisting of a desktop assessment and two season field survey, did not record any Threatened or Priority Ecological Communities (Onshore, 2019). The assessment recorded seven Priority species within survey area (Figure 14) being:

- *Goodenia virgata* (P2).
- *Calytrix praecipua* (P3).
- *Eremophila lanata* (P3).
- *Maireana prosthecochoaeta* (P3).
- *Sauropus* sp. Woolgorong (M. Officer s.n. 10/8/94).
- *Sporobolus blakei* (P3).
- *Thryptomene* sp. Leinster (B.J. Lepschi & L.A. Craven 4362) (P3).

Bamford completed a targeted vertebrate fauna survey over the Trident area in 2018 (Bamford, 2019). The area has the potential to host up to 20 conservation significant species, however no species listed under the EPBC Act or the WA *Biodiversity Conservation Act 2016* (BC Act) were recorded (Bamford, 2019).

To support approval applications and appropriate management and mitigation measures, further assessment is required to characterise waste rock and tailings.

Approvals

Following a review of baseline environmental data, the Project is unlikely to require referral to:

- DCCEEW under the EPBC Act; or
- The WA EPA under Part IV of the EP Act.

There are currently no active works approvals or licences under Part V of the EP Act. Future operations likely to trigger a works approval and licence for the following prescribed premise activities include:

- Category 6 – Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore (50,000 tonnes or more per annum).

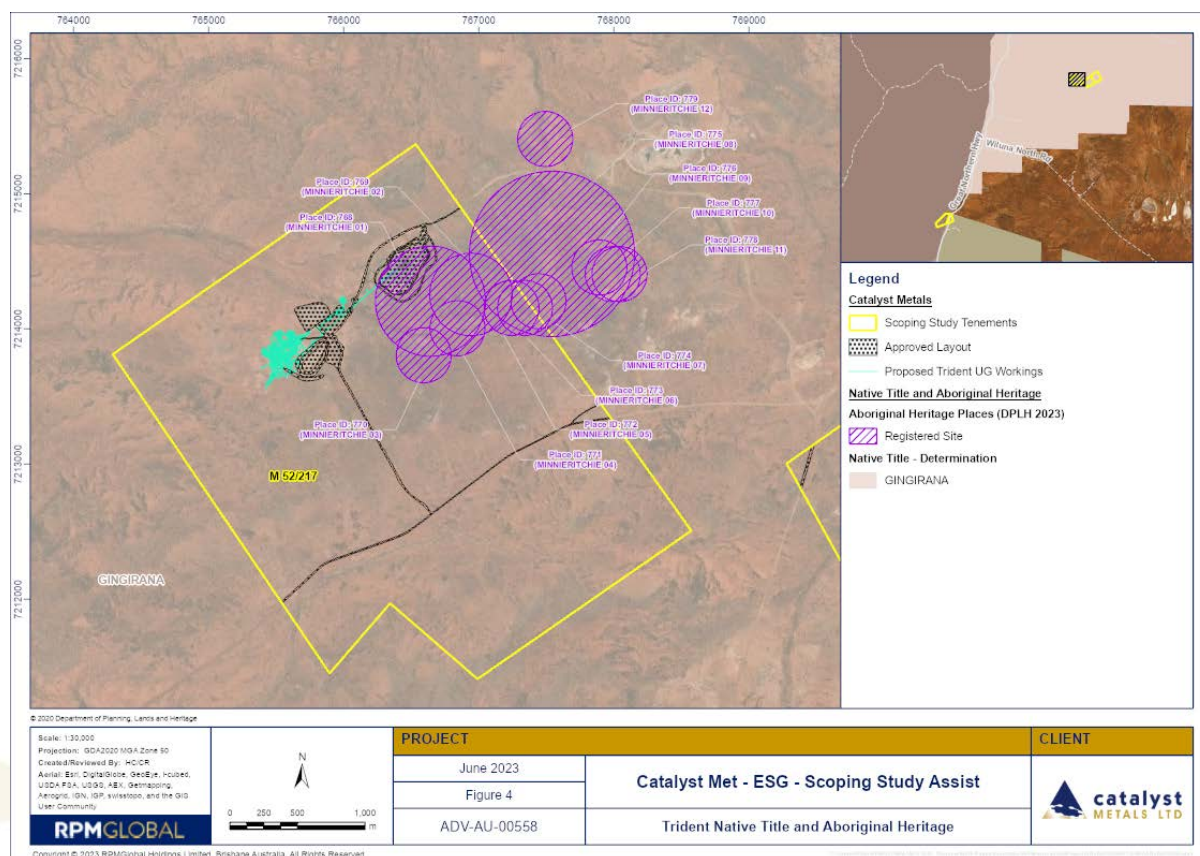
- Category 54 – Sewage facility on which sewage is treated (excluding septic tanks) or from which treated sewage is discharged onto lands or waters (100 m³ or more per day).
- Category 64 – Class II putrescible landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal is accepted for burial (20 tonnes or more per year).
- Category 70 – Screening etc. of material: premises on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated (More than 5,000 but less than 50,000 tonnes per year).

A Native Vegetation Clearing Permit (NVCP) will be required under Part V of the EP Act if the additional ground disturbance for supporting infrastructure is required for Project activities.

The Project is located on active mining tenure, M52/228 and M52/299, where historic operations are approved via numerous Mining Proposals (MPs) and Notices of Intent (NOI) under the *Mining Act 1978* (Mining Act). Commitments and operations made in Mining Act approvals are still valid; proposed future operations will require approval through a Mining Proposal accompanied by a Mine Closure Plan (MCP).

A site wide MCP was approved for the Project in 2017, with an updated version submitted in 2020, however is still under assessment by Department Mines, Industry Regulation and Safety (DMIRS). A closure cost estimate was completed in 2021 using an increased percentage for environmental maintenance and monitoring. Given that Trident is largely undisturbed, total closure costs are relatively small and will require updating once project activities commence.

Figure 13: Trident Native Title and Aboriginal Heritage



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Mine Costing

Basis of Estimate

As part of the mining cost estimate Entech used recent actuals from CYL's Plutonic operation. The rates are assembled as fully variable schedule of rates, which were applied to mining physicals. Where Trident mining activities such as the use of shotcrete and pastefill aren't utilised at Plutonic, additional costs were estimated to ensure these items were appropriately accounted for. Additional capital infrastructure costs and non-mining costs were estimated by Entech and CYL.

Infrastructure Capital

Infrastructure capital includes supply and installation of infrastructure items to support the underground operation. Table 8 shows the breakdown of the infrastructure capital.

Table 8: Infrastructure Capital (Totals Have Been Rounded)

Contractor and Owner Establishment	\$	2,957,344
Portal	\$	1,290,493
Escapeway	\$	300,494
Ventilation	\$	2,245,000
Pumping	\$	630,000
Electrical	\$	2,247,000
Pastefill Plant	\$	7,000,000
Offices & Other	\$	469,500
Safety	\$	531,350
Survey	\$	340,000
Total	\$	18,011,181

Summary of Capital Costs

The estimated capital costs are summarised in Table 9.

Table 9: Capital breakdown

Description	Unit	Value
Lateral	\$/t ore	38.09
Vertical	\$/t ore	2.22
Mine Services	\$/t ore	23.43
Overheads	\$/t ore	0.56
Total Capital	\$/t ore	64.29

Summary of Operating Costs

A breakdown of the operating unit costs is shown in Table 10.

Table 10: Operating unit cost breakdown

Description	Unit	Value
Lateral	\$/t ore	55.16
Vertical	\$/t ore	0.00
Drilling	\$/t ore	0.00
Charging	\$/t ore	0.00
Bogging	\$/t ore	39.08

Backfill	\$/t ore	23.60
Haulage	\$/t ore	0.30
Overheads	\$/t ore	1.22
Grade Control	\$/t ore	10.00
Total Operating	\$/t ore	129.36

G&A

Catalyst has assumed annual administrative overheads of A\$5.58/t which averages around \$1.5m per annum over the life of mine. Administrative synergies are anticipated by leverage existing site infrastructure and support services at Plutonic. Further work is required in future studies to validate and refine these estimates.

Royalties

Catalyst has applied the 2.5% state government royalty to all gold sales. No private royalties are held over the Trident tenements.

Financial Analysis

Key assumptions

Catalyst has engaged independent and reputable consultants to develop mine schedules, processing inputs and associated costings. Economic inputs including gold prices, discount rates and corporate G&A have been determined by Catalyst.

It is assumed that existing infrastructure at Plutonic including camp facilities, airstrip and tailings facility will support the Trident development. In addition existing access roads between Trident and Plutonic are considered suitable for the proposed haulage route.

Table 11: Key assumptions

Key assumptions		
Discount rate	%	5%
Gold price	\$A/oz	2,700
State royalty	%	2.5%
Ore from indicated resources	%	87%
Ore from inferred resources	%	13%
Processing cost	\$A/t	20.50
Processing recovery	%	89%

Table 12: Key operational parameters

Key operational parameters		Total	Year 1	Year 2	Year 3	Year 4	Year5
Total Development	<i>m</i>	12,327	2,402	3,120	3,267	3,029	509
Waste Tonnes	<i>t</i>	560,855	180,705	173,117	73,977	108,993	24,063
Total Ore Tonnes	<i>t</i>	1,073,343	15,393	158,086	341,323	360,196	198,346
Total Ore Grade	<i>g/t Au</i>	6.7	3.0	5.7	6.4	6.7	8.1
Total Ore Metal	<i>oz</i>	229,521	1,500	28,980	69,793	77,279	51,969
Indicated Ore Metal	<i>oz</i>	209,587	-	23,278	66,988	69,028	50,294
Inferred Ore Metal	<i>oz</i>	19,934	1,500	5,703	2,804	8,252	1,675
Recoveries	%		89%	89%	89%	89%	89%
Gold Produced	<i>oz</i>	204,274	1,335	25,792	62,116	68,779	46,252

Financial outputs

The scoping study indicates Trident has the potential, given its high-grade resource, to generate strong cashflows over the life of mine. The pre-production capital investment of \$36m includes mine infrastructure and development with the project benefitting from the existing processing and site support infrastructure located at Plutonic.

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Table 13: Key financial results

Key financial results		Annual average	Life of mine
Pre-production capital	\$Am	-	36
Revenue	\$Am	110	552
Cost of sales	\$Am	38	189
EBITDA	\$Am	73	363

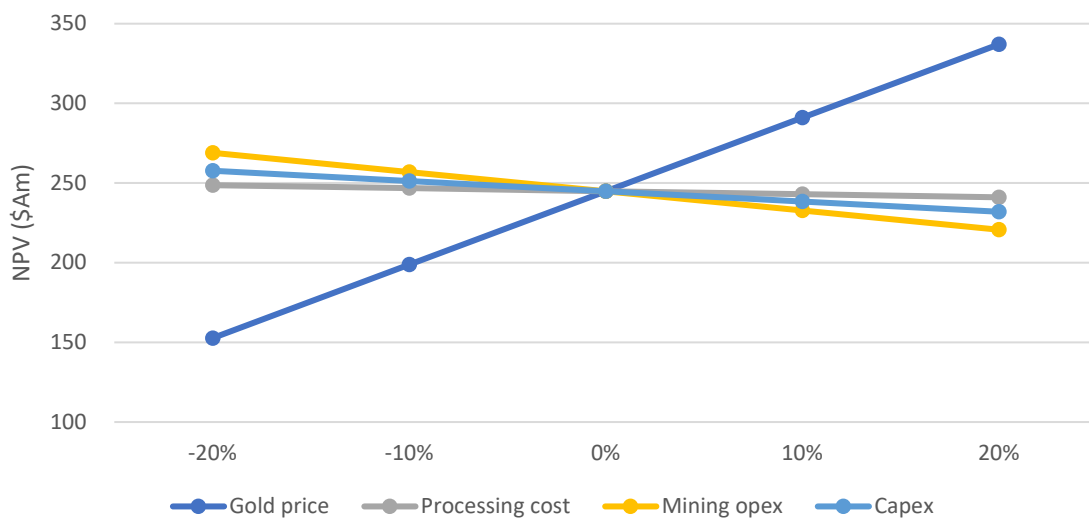
Trident's annual average C1 cash cost is 817/oz with an AISC is A\$1,046/oz. This provides the project with adequate headroom against variances in key assumptions as shown in Figure 15.

Table 14: Key financial metrics

Key financial metrics		Average annual
Annual average ounces	oz	40,855
Revenue	A\$/oz	2,700
Mining	A\$/oz	680
Processing	A\$/oz	108
G&A	A\$/oz	29
C1 cash cost	A\$/oz	817
Royalty	A\$/oz	68
Sustaining capital	A\$/oz	162
AISC	A\$/oz	1,046

Sensitivities

Figure 15: Economic sensitivities



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Table 15: Discount rate sensitivities

Discount rate sensitivities		NPV (\$Am)	IRR (%)
5%	\$Am	246	132%
8%	\$Am	222	
10%	\$Am	207	

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Funding

Catalyst's Board of Directors and management team have experience and demonstrated expertise in capital markets, including arranging debt and equity financing for mineral projects and specifically gold developments.

Trident represents a development with attractive project economics and low capital requirements. Funding in the order of \$50m is required to progress the Project to production. The Board considers that there is a reasonable basis to assume that future funding will be available.

The Project, through this scoping study has demonstrated strong technical and economic fundamentals which present a strong foundation for the Company to commence discussions with traditional debt and equity financiers.

The Company has recently demonstrated its track record in attracting equity as evidenced from the recent \$22m placement to institutional and existing shareholders. This equity raising was, in part, supported by investors due to the proposed consolidation, and subsequent development of the Plutonic-Marymia Gold belt. Capital markets have demonstrated support for this project and the Board of Directors are confident that further support will be received for Trident specific development funding.

With the completion of the scoping study, the Company has a pathway to development as discussed in the Project timeline chapter. Catalyst considers that with the completion of the scoping study, it will be well placed to commence discussions with funding providers. Further studies will place the Company in a strong position to secure the necessary financing.

Catalyst is confident that the Project's fundamentals will allow it to attract suitable funding and confident in progressing the project to the next stage.

Project timeline

Catalyst has prepared a detailed project schedule, a summary of which is shown in Figure 16.

The key workstreams include an infill drilling program at Trident, currently underway, which will support the Definitive Feasibility Study scheduled for completion early in 2023. Catalyst is working with its advisors to advance the necessary environmental approvals such that early works can commence in 2023.

The portal construction and decline development is expected to commence in 2024 and first ore is targeted for Q4 2024.

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