

# Hillgrove Gold-Antimony Project Pre-Feasibility Study including Maiden Ore Reserve

**Establishing Concurrent Gold and Antimony Development in NSW** 

#### **Cautionary Statement**

Based on preliminary technical and economic studies, the Prefeasibility Study referred to in this announcement examines the potential of developing the Hillgrove Gold-Antimony Mine by constructing open cut and underground mines and expanding a processing facility to produce gold-antimony concentrate for export and gold doré for domestic refining and sale. The Prefeasibility Study outcomes, production targets and forecast financial information referred to in this document are based on low accuracy level technical and economic assessments. The Prefeasibility Study has been completed to a level of accuracy of +/- 35% in line with typical Prefeasibility level study accuracy. While each of the modifying factors was considered and applied, there is no certainty of eventual conversion to Ore Reserves or that the production targets themselves will be realised. Further exploration and evaluation work and appropriate studies are required before Larvotto Resources Ltd ("Larvotto", "the Company") will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Prefeasibility Study or this announcement.

Larvotto has reasonable grounds for disclosing Production Targets, since approximately 85% of the Life-of-Mine (LOM) Production Target is in the Indicated Mineral Resource category, and 15% is in the Inferred Mineral Resource category. There is a lower level of geological confidence associated with Inferred Mineral Resources. Inferred Mineral Resources are scheduled later in the LOM as they are at the outer edges and deeper in the Resource Model. While Larvotto considers all the material assumptions in the Prefeasibility study to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated will be achieved.

The Mineral Resources underpinning the production target in the Prefeasibility Study have been prepared by a competent person in accordance with the requirements of the JORC Code (2012). The Competent Person's Statement is found below.

5 August 2024



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# Highlights

- Key operational findings of the Pre-Feasibility Study (PFS) include:
- CAPEX of \$73M targeting >80koz AuEq annual production
- Maiden Ore Reserve 606,000oz AuEq @ 6.0g/t AuEq
  - Development largely de-risked due to extensive existing surface and underground infrastructure, and established permitting
- PFS robust financials (conservative commodity prices of US\$2,000oz gold and US\$15,000/t antimony) include:
  - Over 600,000 AuEq oz projected production in current mine plan
  - Significantly reduced time to first production
  - Life of Mine (LOM) gold AISC of <\$900/oz for gold ounces
  - Project payback <2 years (1 year at spot prices)
- NPV 8% (post-tax) of \$157M and IRR 50%
- NPV 8% (post-tax) increases to \$383M and IRR 114% using spot price
- Significant potential to increase mine life and grade through near-mine exploration
- Definitive Feasibility Study commences, targeting first ore by early 2026
- Australia's largest antimony deposit and world top 10 antimony deposit
- Critical mineral antimony market rising demand due to use in solar panels
  - 100% price increase in past 12 months to record highs

**Managing Director Ron Heeks commented,** "Only seven months since our acquisition of the significant Hillgrove Project, Larvotto has produced a compelling pre-feasibility study that highlights the financial and near-term gold and antimony development potential of the project. This achievement has only been possible due to the considerable efforts and diligence of the Larvotto team, which includes numerous external consultants and advisors.

All financial and technical objectives have been met and the capital cost of the development is low compared to a greenfields development, with much of the required surface and underground infrastructure



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already in place. The project's economics are extremely robust even at the conservative prices used in our modelling. At current record spot prices for gold and antimony, these economics are exceptional.

Larvotto will be bringing Australia's largest antimony project online in a rising antimony market, driven by the increasing use of antimony in solar panel production whilst production from other global producers becomes stressed, which is a trend that is expected to continue.

This is the first time that gold and antimony will be targeted with equal priority at Hillgrove. Previously, the mine operated for 30 years as an antimony focussed operation and 100 years prior was a successful high-grade gold mine. The coexistence of gold and antimony within the same orezone means project value is greatly enhanced with Larvotto's strategy to optimise project returns by extracting and processing both metals concurrently and without bias.

Additionally, there is considerable discovery upside at Hillgrove through both extensions around the defined Ore Reserve areas and new targets, including the high-grade zone recently intersected at Bakers Creek and the large untested lode position between Garibaldi and Brackins Spur. LRV looks forward to updating the Mineral Resource and Ore Reserve released today whilst progressing with the Definitive Feasibility Study."

Larvotto Resources Limited (ASX: LRV, Germany: K6X, 'Larvotto' or 'the Company') is pleased to report the results of the Pre-Feasibility Study ('PFS' or 'the Study') completed on its 100%-owned Hillgrove gold and antimony project in NSW, Australia.

The PFS, is based on a Mineral Resource Estimate updated with drilling from 2022, includes a maiden Ore Reserve and outlines a technically and economically viable high-grade project demonstrating low operating costs, a significant high-margin production target profile and compelling forecasts of potential financial and economic returns. Conservative modelling parameters have been used in the Study but spot prices for both commodities (currently at record highs) have also been displayed to present the upside of the project.

# **Key Study Outcomes**

The Hillgrove Project economic model is significantly derisked in comparison to its peers owing to the majority of the surface infrastructure, including the process plant, power, roads, decline and substantial underground development already being in place. The nearby City of Armidale provides a significant support base for accommodation, transport and skills. With an expected development cost of under \$80M and a rapid payback of less than two years, Hillgrove will carry much less initial debt than most new projects, while producing over 80k AuEq oz per annum from high grade ore.

Following the delivery of the positive PFS, the Board of Larvotto have now approved the immediate commencement of the Definitive Feasibility Study ('**DFS**'). This process, expected to take until the end of the year, is relatively short given the majority of the items required to be evaluated already exist. The focus of the DFS will largely be on optimising metallurgical testwork to produce the maximum free gold extraction combined with optimal concentrate production and advancing permitting.

The upside of the Project is further enhanced by the large resource base that has yet to be evaluated for inclusion into the initial Ore Reserve. Additionally, the depth potential of most of the mineralised zones has

yet to fully tested. The potential of this mineralisation was highlighted in the recent release of the Project's Exploration Target of between 0.67 Moz and 1.08 Moz AuEq.

Finalisation of the DFS is expected by end of CY2024, which will allow for project financing in early 2025 and project development commencing with the aim of first ore production by early 2026.

Average gold-equivalent production averages 80.4koz over the LOM.

- Financial forecasts at a conservative gold price of US\$2,000/oz gold and US\$15,000/t antimony, demonstrate the high-margin potential of the Hillgrove Project:
  - LOM of 7 years
  - Net free cashflow of approximately \$390 million (pre-tax) and \$252 million (post-tax)
  - EBITDA over LOM approximately \$652 million
  - NPV (8%) post-tax of approximately \$157 million
  - Internal Rate of Return (IRR) 80% (pre-tax) and 50% (post-tax)
- Financial forecasts using a spot price US\$2,350/oz gold and US\$23,000/t antimony, highlight the sensitivity of the PFS to higher prices and the significant value proposition
  - LOM of 7 years
  - Net free cashflow of approximately \$820 million (pre-tax) and \$553 million (post-tax)
  - EBITDA over LOM approximately \$1.08 billion
  - NPV (8%) post-tax of approximately \$383 million
  - Internal Rate of Return (IRR) 173% (pre-tax) and 113% (post-tax)
- LOM All-In Sustaining Cost (AISC) estimated forecast (excluding by-product NSR) of \$736M (base) and \$754M (spot).
- Average free cash-flow (pre-tax) over LOM approximately \$64M (base) and \$126M (spot)
- Pre-production capital is \$73.4M (base) and \$67.2M (spot), consisting of \$88.5M pre-production capital expenditure (including contingencies) with pre-production revenue of \$15.1M (base) and \$21.3M (spot). Total sustaining capital costs over the LOM, including contingencies, are \$184.2M.

Table 1 Key Project Economics

Item	Base	Spot				
NPV (pre-tax 8%) and IRR%	\$261M and 80%	\$584M and 173%				
NPV (post-tax 8%) and IRR%	\$157M and 49.6%	\$383M and 113%				
All-In Sustaining Costs (AISC)	\$820 /oz	-\$82 /oz				
Annual Production, Au	41.1koz	41.1koz				
Annual Production, Sb	5.4 kt	5.4 kt				
LOM pre-tax cashflow	\$390M	\$820M				
Payback	2 years	1 year				
Commodity prices: Gold, Antimony (US\$)	2,000oz, 15,000t	2,350oz, 23,000t				
AUD / US exchange rate	0.68	0.65				
Capital cost (net of pre-production revenue)	\$73.4M	\$67.2M				



# **Project Parameters**

### Table 2 Key LOM Financial & Physical Statistics

Key LOM Production Statistics			
Life of Mine	7 years		
Ore tonnes mined 3.41 Mt			
Ore processing rate	516 kt/year		
Average gold production (recovered) - years 1 to 5	41.5 koz		
Average gold production (recovered) - LOM	41.0 koz		
Recovered gold ounces	288.0 koz		
Average antimony production (recovered) - years 1 to 5	5.8 kt		
Average antimony production (recovered) - LOM	5.4 kt		
Recovered antimony tonnes	37.7 kt		
Average gold-equivalent production (recovered) - years 1 to 5	84.2 koz		
Average gold-equivalent production (recovered) - LOM	80.4 koz		
Recovered gold-equivalent ounces	564.0 koz		
Key LOM Financial Statistics	Base	Spot	
NSR Revenue	\$1,195 M	\$1,656 M	
All In Sustaining Costs – LOM, excluding by-product NSR credit	\$736 M	\$772 M	
All In Sustaining Costs – LOM, including by-product NSR credit	\$236 M	-\$6 M	
Net free cashflow (pre-tax)	\$390 M	\$820 M	
Net free cashflow (post-tax)	\$252 M	\$553 M	
Average free cashflow (pre-tax) – LOM operating years	\$64 M	\$88 M	
EBITDA – Life of Mine	\$652 M \$1,082 M		
ayback period (post-tax) 2 years 1 year			
NPV8% (pre-tax)	\$261 M	\$584 M	
NPV8% (post-tax)	\$157 M	\$383 M	
Internal Rate of Return (IRR) (pre-tax)	80%	173%	
Internal Rate of Return (IRR) (post-tax)	50%	113%	
Capital Costs			
Pre-Production Capital Costs (incl. contingencies)	\$88.5 M	\$88.5 M	
Pre-Production Contingencies, Subtotal	\$3.8 M	\$3.8 M	
Pre-Production Revenue	\$15.1 M	\$21.3 M	
Pre-Production, Net Capital	\$73.4 M	\$67.2 M	
Sustaining Capital Costs - LOM (incl. contingencies)	\$184.2 M	\$184.2 M	
Closure Costs (incl. contingencies)	\$9.8 M \$9.8 M		
Key Environmental and Social (ES) Statistics			
State Royalties, Tenement Rent, Rates, Corporate & Payroll Tax – LOM	\$183 M	\$328 M	
Wages/Salaries (incl. superannuation) – LOM	\$200 M	\$200 M	
Site Expenditure - LOM	\$685 M	\$685 M	



	Gold price (USD/Oz)	1,600	1,800	2,000	2,200	2,400	2,600
Pre-tax	Antimony price (USD/tonne)	10,000	12,500	15,000	17,500	20,000	22,500
Free cashflow (\$M)		69	231	390	523	673	822
NPV (8%) (\$M)		21	142	261	361	473	585
Internal Rate of Return (IRR) (%)		14	47	80	107	138	170
Post-tax							
Free cashflow (\$M)		27	140	252	345	450	555
NPV (8%) (\$M)		(11)	73	157	227	305	383
Internal Rate of Retu	ırn (IRR) (%)	5	27	50	68	89	111

#### Table 3 Key Project Financial Sensitivity Metrics

#### Table 4 Mineral Resource Estimate (inclusive of Ore Reserves)

Classification	Tonnage (kt)	Grade Au (g/t)	Grade Sb (%)	Au Eq. (g/t)	Contained Gold (koz Au)	Contained Sb (kt Sb)
Measured	448	3.6	3.8	12.1	51	17
Indicated	3,980	4.8	1.3	7.7	617	50
Measured & Indicated	4,429	4.7	1.5	8.1	668	67
Inferred	2,835	4.0	0.9	6.1	367	26
Total	7,264	4.4	1.3	7.4	1,036	93

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.

Au equivalent (Au Eq.) grade reported using metal selling prices, recoveries and other assumptions as outlined in Mineral Resources on p28 Mineral Resource cut off and Source:

Cut-off grade for Metz (Syndicate, Blacklode & Sunlight) and Garibaldi (Eleanora-Garibaldi) Mineral Resources are 3.0g/t Au Eq. (5 Aug 2024). Cut-off grade for Clarks Gully & Brackins Spur Mineral Resources are 5.0g/t Au Eq. (calculated with selling prices, recoveries, and other assumptions at the time of estimation: AMC Consultants Pty. Ltd. Hillgrove Mineral Resource Estimate, August 2017 (LRV Dec 22, 2023)

#### Table 5 Hillgrove JORC 2012 Ore Reserve Estimate

Classification		Tonnes	Au Grade	Sb Grade	AuEq Grade	cont. Au	cont. Sb	cont. AuEq
	Classification	(Mt)	(g/t)	(%)	(AuEq g/t)	(koz)	(kt)	(AuEq koz)
Open Pit	Probable	0.38	1.9	1.7%	5.8	23	6.6	72
Underground	Proved	0.39	2.6	1.9%	6.9	32	7.5	87
Underground	Probable	2.38	3.5	1.0%	5.8	264	24.9	447
Total Ore Res	erves	3.15	3.2	1.2%	6.0	320	39.0	606

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.

The total LOM Production Target includes 5% Inferred Resources, 3% Indicated Resources outside of Ore Reserves, and 92% Ore Reserves (percentages are for contained Au Eq. ounces).

Cut-off grades applied after modifying for dilution.

Gold equivalent (Au Eq.) has been calculated using the metal selling prices, recoveries and other assumptions as outlined in the Mineral Resources chapter on p28.

Cut-off grades are 1.36 Au.Eq g/t for open pit and 2.80 Au.Eq g/t for underground



## General disclaimer

Except for statutory liability which cannot be excluded, Larvotto, its officers, employees and advisers expressly disclaim any responsibility for the accuracy or completeness of the material contained in the study and this announcement and exclude all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in the study or this announcement or any error or omission there from.

The study and this announcement does not take into account the individual investment objectives, financial or tax situation or particular needs of any person. It does not contain financial advice. Investors should consider seeking independent legal, financial and taxation advice in relation to the contents of the study and this announcement.

Except as required by applicable law, Larvotto does not undertake any obligation to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of the study or this announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.



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# Introduction

The Hillgrove Project is located 23km east of Armidale in northern New South Wales and is strategically situated close to major infrastructure including major highways, rail links and regional airports (Figure 1). With nearly 30,000 people, Armidale is a major regional city famous for being the centre of an extensive agriculture industry as well as high quality schools and home to New England University.



Figure 1 Hillgrove project location map

The Hillgrove area has been actively mined for gold and antimony since 1857. Continuous antimony production occurred for over 30 years until 2002, when prices dropped to an all-time low of around US\$1,500t, while gold was trading at US\$300 per ounce. Currently, antimony prices are nearly US\$13,000t, and gold exceeds US\$2,000 per ounce. Hillgrove has historically functioned both as a single-commodity operation and a dual gold-antimony producer, yielding over 750,000 ounces of gold and 40,000t of antimony. The complementary extraction processes of these metals present a high-grade mining opportunity.

## **Development Context**

Larvotto Resources acquired the Hillgrove Project in December 2023 as a unique opportunity to acquire a project with a defined Mineral Resource at the time of acquisition of 1.4Moz @ 6.1g/t AuEq, with significant installed infrastructure for both surface facilities and underground development. In the year prior to Larvotto's acquisition, approximately \$20M had been invested in exploration and development, which yielded resource growth at Garibaldi, identification of the new high-grade target at Bakers Creek and modified the processing circuit to optimise metal recovery.



Hillgrove has over 15,000 completed drill holes across the mineral field which along with defining the current Mineral Resource, identify many zones warranting further exploration. In particular, gold dominant zones, previously overlooked due to the prioritisation of antimony production, show great potential. One such area is the Bakers Creek deposit where recent drilling has intercepted high-grade gold, which along with large untested areas along known mineralised trends, such as at the Garibaldi-Brackins Spur gap, present good potential to grow resources in time.

Larvotto's strategy at Hillgrove is to concurrently advance development of the project as defined in this study, in parallel with carrying out exploration drilling aimed at growing resources and adding value to the future production plan.



Figure 2 Hillgrove Gold-Antimony Project Site

Antimony has for many years been used as a fire retardant and a hardener for other metals, particularly lead. It is increasingly being used in electronics and various military uses. Antimony is extensively used in the production of glass to help improve stability of solar panels when exposed to the ultraviolet rays of sunlight. This has been an emerging market for antimony and is expected to continue to rise significantly as solar panel production continues its dramatic rise.



# **Study Parameters**

The Pre-Feasibility Study (PFS) is based on the following key parameters:

- Mineral Resource (JORC 2012)
- Processing Plant restart and upgrade to expand production to 500-550ktpa
- Six-month refurbishment and upgrade phase for re-commissioning, after 6-9 months to complete engineering and permitting
- Seven-year mine life
- Mining being managed by Larvotto Resources, with contractor/hire equipment and combination of Larvotto and contractor personnel (subject to contracting strategy)
- Processing and infrastructure is managed and operated by Larvotto Resources
- Overall project implementation by Larvotto Resources

By undertaking a minimal amount of refurbishment and upgrade work prior to restart, revenue streams could become accessible within six months of commencing work on site, or 12-14 months for the full expansion scope of work.



# Study Team

The Pre-Feasibility Study was managed by Larvotto with specialist consultants as listed below to complete all aspects of the Study:

- Mineral Resource Estimate Larvotto Resources and AMC
- Environmental, Base line Studies and Project Permitting Onward Consulting
- Geotechnical OreTeck Mining Solutions
- Tailings Storage Facility Knight Piesold Pty Ltd
- Hydrology and Hydrogeology Larvotto Resources
- Processing Plant Mincore Pty Ltd
- Metallurgy and Testwork Mincore Pty Ltd, Independant Metallurgical Operations
- Infrastructure Mincore Pty Ltd
- Mining and Scheduling Larvotto Resources and OreTeck Mining Solutions
- Financial Model Larvotto Resources



# Permitting & Approvals

The Hillgrove Gold-Antimony project already has the following permits granted:

Authority	Approval Type	Number	Issued	Expires	Comment
DPHI	Development Consent	DA-98/35, DC S98/ Mod.4	18 Nov 1998	31 Dec 2023	Consent for Mine Expansion, POX plant, Brackins Spur and Lower Cooney Haul Roads, TSF2 and Brackins Spur mining area. Production permission expires 31 Dec- 23 but all other conditions continue.
EDA	Environment Protection Licence	EPL 921	8 May 2001	No expiry	EPL for Hillgrove Mine
LFA	Radiation Licence to Sell/Possess	5060782	2007	21 Jan 2024	For processing plant density gauges. Annual licence.
	Water Access Licence	WAL 39495	12 Aug 2023	Continuing	Bakers Creek
	Water Access Licence	WAL 39497	20 Oct 2016	Continuing	Hillgrove Station
DPI	Water Access Licence	WAL 39498	28 Mar 2013	Continuing	Town Reservoir, Industrial Use
	Water Access Licence	WAL 39500	27 Feb 2005	Specific Purpose	Town Reservoir, Domestic Use
	Water Access Licence	WAL 40217	18 Mar 2015	Continuing	Mine Adits, Groundwater Capture
	Water Supply Works	30WA 308489	1 Jul 2016	30 Jun 2029	Baker Creek, Bywash Dam
	Bore Water Supply Works	30WA 314503	1 Jul 2016	17 Mar 2030	Mine Adits, Groundwater (permitted as bores)
	Development Consent	22/81	23 Jun 1981	Perpetuity	Building Approval for Surface Workshop
	Development Consent	DA-19-2000/C	29 Mar 2001	Perpetuity	Processing plant
ARC, including	Construction Certificate for Modified DA DA-19- 200/C	CC-75-2020	9 Nov 2020	Continuing	Modification to Processing plant
antecedents	Development Consent	42/82	22 Jul 1982	Perpetuity	Mining in Metz/Sunlight Gorge
	Development Consent	95/26	8 Mar 2004	Perpetuity	Consent under SEPP37 for continuing use of pre-1979 Mining Leases.
	Development Consent	26/2005/A	21 Sep 2006	Perpetuity	Sunlight haul road from Metz 7L to Bakers Creek.

Table 6 Development Consents and Licences

A total of 51 tenements covering 254km<sup>2</sup> include 33 mining leases (ML), three gold leases (GL), six private land leases (PLL), five mining purpose leases (MPL), and four exploration leases (EL).

All tenements are currently in good standing. There are no joint venture agreements relevant to the area of interest.

Gold Lease (GL): GLs were a type of mining lease permitted under the Mining Act 1906 (NSW). They are no longer granted under the Mining Act 1992 (NSW).

Mining Purposes Lease (MPL): MPLs are granted for areas in coal and minerals mining operations such as infrastructure purposes where resource extraction does not take place. Hence, they will appear as 'nil minerals'. MPLs were granted under the 1906 and 1973 Mining Acts. MPLs are no longer granted and leases for mining purposes are now categorised as MLs under the Mining Act 1992 (NSW). The term 'mining purpose(s)' is now referred to as Ancillary Mining Activities

Private Lands Lease (PLL): A PLL was a type of Mining Lease to extract minerals or petroleum granted under the 1906, 1918, and 1924 Mining Acts. PLLs are no longer granted.



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Project	Location	Licence	Beneficial Interest
Hillgrove	NSW	EL 3326	100%
Hillgrove	NSW	EL 5973	100%
Hillgrove	NSW	EL 5997	100%
Hillgrove	NSW	EL 6419	100%

### Table 7 Exploration Licences (EL) (NSW)

#### Table 8 Mining Leases (ML) (NSW)

Project	Location	Licence	Beneficial Interest
Hillgrove	NSW	ML 205	100%
Hillgrove	NSW	ML 219	100%
Hillgrove	NSW	ML 231	100%
Hillgrove	NSW	ML 391	100%
Hillgrove	NSW	ML 392	100%
Hillgrove	NSW	ML 592	100%
Hillgrove	NSW	ML 600	100%
Hillgrove	NSW	ML 649	100%
Hillgrove	NSW	ML 655	100%
Hillgrove	NSW	ML 714	100%
Hillgrove	NSW	ML 749	100%
Hillgrove	NSW	ML 772	100%
Hillgrove	NSW	ML 810	100%
Hillgrove	NSW	ML 945	100%
Hillgrove	NSW	ML 961	100%
Hillgrove	NSW	ML 972	100%
Hillgrove	NSW	ML 1020	100%
Hillgrove	NSW	ML 1026	100%
Hillgrove	NSW	ML 1100	100%
Hillgrove	NSW	ML 1101	100%
Hillgrove	NSW	ML 1332	100%
Hillgrove	NSW	ML 1440	100%
Hillgrove	NSW	ML 1441	100%
Hillgrove	NSW	ML 1442	100%
Hillgrove	NSW	ML 1598	100%
Hillgrove	NSW	ML 1599	100%
Hillgrove	NSW	ML 1600	100%
Hillgrove	NSW	ML 1601	100%
Hillgrove	NSW	ML 1602	100%
Hillgrove	NSW	ML 1603	100%
Hillgrove	NSW	ML 1604	100%
Hillgrove	NSW	ML 5643	100%
Hillgrove	NSW	ML 6282	100%



Project	Location	Licence	Beneficial Interest
Hillgrove	NSW	GL 3959	100%
Hillgrove	NSW	GL 3980	100%
Hillgrove	NSW	GL 5845	100%

#### Table 9 Gold Leases (GL) (NSW)

#### Table 10 Mining Purpose Leases (MPL) (NSW)

Project	Location	Licence	Beneficial Interest
Hillgrove	NSW	MPL 146	100%
Hillgrove	NSW	MPL 220	100%
Hillgrove	NSW	MPL 745	100%
Hillgrove	NSW	MPL 919	100%
Hillgrove	NSW	MPL 1427	100%

#### Table 11 Private Land Leases (PLL) (NSW)

Project	Location	Licence	Beneficial Interest
Hillgrove	NSW	PLL 350	100%
Hillgrove	NSW	PLL 416	100%
Hillgrove	NSW	PLL 661	100%
Hillgrove	NSW	PLL 804	100%
Hillgrove	NSW	PLL 1252	100%
Hillgrove	NSW	PLL 3827	100%

The Hillgrove Gold Project was acquired by Larvotto Resources in December 2023. Larvotto Resources hold 100% interest in all tenement areas. There are no Joint venture agreements relevant to the area of interest.

To realise the life-of-mine plan defined in this Study, the following permitting approvals are required:

 Phase 1 – Modification of existing consents to extend mine operating life, increase processing rate and extend tailings capacity at Hillgrove Mine.

This modification will provide sufficient permitting to support a development decision with a mine life of 5 years and up to 2.0Mt of tailings capacity.

- Modifications required for Ministerial (state) consent, plus two Council consents covering the processing facility and mining at Garibaldi.
- There is a past record of consents being modified multiple times previously since 1998.

Larvotto are advanced towards submitting the modification application with biodiversity surveys mostly complete and the company expects modifications to be in place to enable first ore production in 2026.

• Phase 2 – A new consent to enable mining and construction at Clarks Gully and consolidation of all legacy consents as a State Significant Development (SSD).



The new consent will assure the full mine life projected in this study, plus capacity for expansion with more than 6Mt of total tailings capacity with the approval of the Clarks Gully TSF.

SSD's have a longer permitting timeframe than the modifications in Phase 1 which is mitigated by development plan in this Study by:

- Larvotto have commenced the biodiversity surveys needed to submit the application.
- With the Phase 1 modifications, there is sufficient tailings capacity at Hillgrove that delays to the expected SSD timeline will not impact production for more than three years after commissioning, making the project robust to unexpected delays.

Land access is in place for most development locations with Hillgrove Mines either owning the freehold land or having a crown lands lease in place. Land access/acquisition agreements will be required for:

- Infrastructure corridor for tailings pipeline from process plant to Clarks Gully.
- Neighbouring properties, located close to proposed new operations at Hillgrove and Clarks Gully.



# **Geology and Mineralisation**

# **Regional Geology**

Steeply inclined north-northwest, northwest, west-northwest mineralised structures dominate the 10km strike of the Hillgrove mineral field. The mineral field spans across three geological units, a northern monzogranite (Hillgrove adamellite), an early-stage metasediment (Girrakool Metasediment) and a late I-type diorite in the south (Figure 3).

The volcanogenic metasediments are lower greenschist altered. Bedding is rarely observed but is normally sub-vertical with a northwest-southeast strike. The diorite consists of an early phase of granodiorite, a mid-phase of quartz monzodiorite-tonalite and late phase of diorite containing both mafic calc-alkaline and tholeiitic mineral suites. Its formation was likely from a partial melt of the monzogranite and intrusive basalts. Mineralisation post-dates the local diorite emplacement but is of similar age.



Figure 3 Hillgrove Regional Geology Plan



# Deposit History, Geology and Mineralisation Styles

The main mineralised structures are composite, occurring as anastomosing sets of fractures, which pinch and swell along-strike. Local dilutional zones host mineralised hydrothermal breccias. The main structures are accompanied by arrays of sub-parallel narrow veins. The northwest striking mineralised structures commonly contain lamprophyre dykes which have been emplaced into mineralised rock and have themselves been variably altered and mineralised.

The mineralisation occurred late in orogenic development and has characteristics of most structurally controlled mesothermal deposits. With metamorphic derived mineralising fluids migrating during uplift and unloading through shear zones to the brittle-ductile transition at which point deposition occurred within high angle faults. Deposition sealed fluid paths and promoted cyclic deposition.

Locally, the mineralisation of the structures occurs as simple single veins, quartz-wallrock breccias, zones of parallel stringer veins and splay structures. Bifurcations in the major structures enclose mineralised zones up to eight metres in width where tension gash type stringer veins cut across the enclosed rocks. Splay structures enclose similar zones that lessen as the structures diverge. Larger splays will separate up to 20m from their parent structure.

Within structures the highest grades occur in vertical to steeply plunging dilatational shoots that can occupy up to 60% of the structure. Zonation of stibnite is recognized in the metasediments and the monzogranite where it is most strongly deposited within 400m of the surface. Otherwise, individual structures have a consistent mineralogical character with phases occurring in comparatively uniform proportions.

Major structures are seen to contain regular mineralisation over strikes of up to 1.2km. These major structures occur within corridors that span up to 10km strike of the Hillgrove Mineral Field.

The Hillgrove Mineral Field is cut by two regional scale faults of east-northeast strike, the Hillgrove Fault on the northern margin and the Chandler Fault on the southern margin (Figure 3). These faults pre-date the mineralisation, with late reactivation opening dilation zones along shear structures between the bounding faults. These dilation zones provide favourable sites for mineralisation. Nearly all the mineralised shears at Hillgrove are associated with a NW trending structural belt between the two faults, with dips commonly 70° to vertical. A major structure running through the centre of the field from Brackins Spur in the south, through the Garibaldi and Eleanora mines, to the Cosmopolitan deposits in the north can be traced over a strike length of 4kms. The Metz Mining Centre is located to the west of this structure.

Gold and antimony mineralisation at Hillgrove are structurally controlled. The deposits exhibit various styles of hydrothermal activity, with veining ranging from simple single veins through parallel stingers to quartz stockwork and wall rock breccias. All major veins have been intruded along shears with left lateral movement. The shears range in width from millimetres to multiple metre widths. Splits in the veins enclose high grade mineralised zones where tension gash type stringer veins cut across the enclosed rocks. Splay veins enclose similar zones that die out as the vein diverges away from the main lode.

All phases occur within ore bearing structures, with the first two phases often sealing structures in the granites resulting from restrictions to later phases. The arsenopyrite phase forms a broad halo of fine parallel veins in a siliceous-sericitic alteration. It appears that all wall rock alteration is associated with this phase, as there is little dispersion of stibnite into surrounding rocks. Alteration effects are commonly on the scale of metres around structures, occurring via pervasive fluid flow, with the more focused quartz-stibnite open space filling phase following. The arsenopyrite phase is responsible for most refractory gold in the deposits with the particle free gold associated with the quartz-stibnite-gold phase.

Ore grade material in structures is restricted to vertical or steeply plunging ore shoots, caused by localised flexures forming dilational jogs. The ore shoots generally occupy up to 60% of the structures with good vertical continuity.

# **Eleanora and Garibaldi Mining Centre**

The Eleanora and Garibaldi Lode System is located adjacent to the Hillgrove Processing Plant and 1.5km to the east of the Metz Mining Centre (including Syndicate, Blacklode and Sunlight) (Figure 4). The Eleanora and Garibaldi Lode System was initially mined until the 1920s then mined from the late 1970s through to 1992 by New England Antimony Mines (NEAM), with mining to level 11 (310m below surface achieved).



Figure 4 Larvotto Resources Project Portfolio

Between 2004 and 2008, Straits Resources advanced knowledge of the project through significant underground and surface drilling programs which included the reestablishment of the Level 9 workings (1740mRL). Red River Resources completed 24 diamond drill holes over the 1.2km strike extent. These



holes confirmed and validated the earlier sampling programs and allowed the reporting of Mineral Resources in accordance with JORC 2012 .

The Eleanora and Garibaldi Lode System is defined over a 1.3km NNW striking shear structure. The mineralisation is generally contained within a narrow shear/breccia that displays multiple hydrothermal fluid events and structural reactivation. The structure and mineralisation are near continuous and contain steeply south plunging shoots of higher-grade Sb-Au mineralisation. The Garibaldi area is located on two southern shoots with the Eleanora area to the north (Figure 5). Extension drilling to the south of the Garibaldi area defines the reported Garibaldi Mineral Resources which extends from surface to a depth of 315m over a strike of 350m. The reported Eleanora Mineral Resource contains remnant mineralisation north of the Garibaldi shaft and the continuation of the mineralisation to 220m below the lowest mining level and 540m below surface.



Figure 5 Longitudinal view, Garibaldi (looking 60° north of East)

The Mineral Resources are hosted within the metasediment package. The structure and mineralisation extend north into the monzogranite, but no resources have been reported into this area and further drilling is required. Although the mineralisation is generally strongest on the main structure splays, parallel structures and network veining host hanging wall and footwall mineralisation. A lamprophyre dyke of generally around 1m width has intruded along the mineralised structure and often divides the mineralisation into parallel lodes, each generally of 0.5m to 3m width.

Adjacent to Garibaldi shaft the main structure is offset 5m to the east, from this point the lode is referred to as the Garibaldi lode. It extends to the south where an additional two parallel lodes are defined in the east wall. Of these lodes the eastern lodes become more dominant towards the south.



# **Metz Mining Centre**

The Metz Mining Centre is located east of Bakers Creek and 1.5km east of the Hillgrove processing plant. It includes Mineral Resources from the Blacklode, Sunlight and Syndicate lode systems hosted withing the Girrakool metasediments.



Figure 6 Longitudinal view, Metz Blacklode and Sunlight (looking 15° east of North)

Blacklode (Figure 6) is defined over a 1km east-west striking shear structure. It occurs as a cross linking, ductile shear in an area of predominately NW extensional shears (Syndicate, Cox's Lode and Bakers Creek). Blacklode contains east plunging shoots of high antimony and gold mineralisation. Ten lesser sub-parallel or splaying lodes adjacent to the main shear are included in the Blacklode Mineral Resource.

The Sunlight Lode occurs as a major splay away from the Blacklode structure (Figure 6). Sunlight splays to the south-east as generally two parallel shear/breccia lodes. The structure has been subjected to multiple hydrothermal fluid events and structural reactivation. An initial phase of pervasive sericite-silica alteration has been overprinted with a broader ductile event consistent with the quartz-arsenopyrite-pyrite-gold phase. This has resulted in a wider zone of quartz stringer / individual veining to quartz breccias with disseminated refractory gold. Later reactivation causing narrow (up to 2m wide) of brittle deformation has produced distinct hanging wall and footwall breccias with high grade particle (free) gold. These breccias are continuous along strike and depth, potentially joining in a combined breccia zone on the western end of the lode.

The intersection of Blacklode and Sunlight Lodes contains high antimony in a limited area. The remainder of the Sunlight Lode is gold dominated with low levels of antimony and tungsten and is more analogous to the Bakers Creek style of mineralisation to the east.

The Sunlight Mine operated from 1878 to 1915, to a depth of 300m below surface and an estimated 200,000 tonnes of ore was mined, of which, an estimated 69,800 tonnes of ore grading 35.7g/t Au was crushed/processed. It is believed most ore not selected for processing was predominantly used as fill in the Sunlight Mine.



Figure 7 Longitudinal view, Metz Syndicate (looking 60° north of East)



The historical miners operated on approximate 50m levels (from 1740RI to 1400RI as per mine grid) and used shrinkage stoping methods. Stope widths were from 0.8 to 2m, with an average width of 1m, and the horizontal length of workings were approximately 500m at their longest.

The high-grade antimony gold Blacklode shoot was mined to the 1600mRL (350m depth) by New England Antimony Mines (NEAM) between 1988 and 2000.

The Syndicate lode system (Figure 7) is defined over a 600m south-south-east striking extensional shear structure which intersects the western end of the east-west striking ductile Blacklode shear. Syndicate contains narrow steep south plunging shoots of high antimony and gold mineralisation, contained within a broader gold mineralised shear structure. Two minor adjacent structures run parallel to the main Syndicate lode. An initial phase of quartz-scheelite mineralisation has resulted in weak tungsten grades (~0.3% W) occurring sporadically as small clasts and veinlets, proximal to the peripheries of the shear. An arsenopyrite phase forms a broad halo of fine parallel stringer veins in a siliceous-sericitic alteration within the shear and is responsible for much of the refractory gold in the deposit. A late phase of quartz-stibnite +/- minor free gold, occurs in reactivated areas of the shear, predominately on the hanging wall and footwall contacts. Aurostibite (AuSb2) occurs as a minor component of the Syndicate stibnite veins.

Further exploration is required on both ends of the lode, with the best opportunity for extensions existing to the north of Black Lode.

## **Brackins Spur**

The Brackins Spur deposit is located on the southern end of the Central Eleanora Structure, a significant NW trending shear zone that can be traced through several workings for approximately 4km (Figure 8).



Figure 8 Longitudinal view, Brackins Spur (looking 60° north of East)



Hosted in the Bakers Creek diorite, it includes a range of rock types including tonalites, granodiorites and diorites. Strong to intense hydrothermal alteration (predominately sericite) occurs in visibly deformed, veined and mineralised diorite. There is evidence of multiple phases of hydrothermal fluids within the Brackins Spur shear and is summarised as:

- An initial phase of fine grained disseminated arsenopyrite +/- pyrite in very strongly sericitic altered and deformed host rock. Broad alteration zones up to 10m have been observed but usually have low to no gold.
- Deposition of scattered, medium to coarse grained scheelite in early veining and commonly associated with quartz.
- Deposition of locally abundant stibnite in later veining and breccia infill.
- Local comminution of sulphides and scheelite in late cataclastic breccias. These narrow (centimetre to tens of centimetre) 'black' shears are predominately very fine grained arsenopyrite / pyrite, containing high grade refractory gold. To date, no particulate gold has been observed in the deposit.



# **Clarks Gully**

Figure 9 Longitudinal view, Clarks Gully (East on Clarks Gully grid)

The Clarks Gully deposit is an advanced antimony project located in the northern most mining lease (ML 1332). A small open cut was excavated in 1994/1995 by New England Antimony Mines to access oxide gold (Figure 9). The deposit is adjacent to the broad confines of the Hillgrove Fault within the monzogranite, and its large width (up to 10m) is due to the intersection of two structural trends. A pre-existing, ENE



trending mylonite zone associated with the Hillgrove Fault is cut by an array of NW striking veins, resulting in a significant dilation zone hosting a mineralised structural breccia. Mineralisation is associated with a network of quartz stringer veins, stockwork and sulphide matrix breccias with intense sericitic alteration of the monzogranite.

Auriferous arsenopyrite-pyrite-quartz-carbonate veins are overprinted with quartz-stibnite veins on a NW trend. Low grade refractory gold and the absence of free gold at Clarks Gully indicate low saturation levels in the arsenopyrite. Low grade tungsten, in the form of scheelite veins, is associated with and peripheral to the main shear. The deposit is open along strike and at depth, with the current drilling having tested the mineralisation to a depth of 300m below surface. The position of the Hillgrove Fault and its effect on the mineralisation on the northern end of the deposit is untested and is a high-priority exploration target.

# Drilling, Sampling and Sub Sampling Techniques

Drilling programs have been conducted by numerous companies over the life of the Hillgrove Operations (Table 12), with the bulk of the drilling conducted in the modern period (post 1980s). Prior to this, exploration was restricted to development on lode with minimal drilling. Exploration around the Hillgrove Field is challenging due to access issues with the steep gorge terrain, resulting in diamond drilling from underground positions being the preferred method. A combination of new development and rehabilitation of historical workings has been required to test most of the deposits. Diamond drilling, reverse circulation and percussion drilling methods have been used at Clarks Gully and Brackins Spur, where access has been possible on the plateau and bottom of gorge respectively.

Face samples have been collected from rock chip samples along horizontal channels. Face samples are spaced a nominal 3.5m along ore drives, for Syndicate where the majority of face samples have been collected, the ore drives are spaced 18m vertically.

Hole Type	Number of holes/samples	Total Length (m)
Auger	8	77
Percussion Drill hole	79	1,841
RC Drill hole	115	14,115
Diamond Drill hole	838	145,044
Channel	23	61
Costean	50	430
Rock Samples	18	2
Face and Wall Samples	14,501	19,163
Sludge	154	677
Total	15,786	181,409

lillgrove

## **Eleanora and Garibaldi Mining Centre**

From the 1970s through to 2000, mine development and stoping fronts in the Eleanora and Garibaldi areas by NEAM were routinely channel sampled. The channels targeted the central high-grade antimony mineralisation and often do not sample the Au-As edge mineralisation. The Eleanora and Garibaldi systems were drilled by NEAM, Straits and Red River through both reverse circulation and diamond methods from the surface and from underground locations. In 2020 and 2021, Red River completed 24

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holes for 3,962.1 downhole drill metres of NQ size core, prior to the release of the 2021 Mineral Resource. In 2022, Red River drilled an additional 30 diamond drill holes of NQ core that have been incorporated in this estimate update (Table 13).

Drill Hole Prefix	Company	Year	Drilling Method	Total Length (m)
65, 66, 78-78, 118-120, 130- 140, 148-151	NEAM		Diamond	702
163, 163C, 164, 167, 168	NEAM	-1997	Diamond	2,064
ELEA, GARA	NEAM	1976-2000	Face Channel	9,063
AL, EL, HGCH, ROM, tsf, Trench	Straits, NEAM	2004, 2005	Channel samples	393
ELG001-135	Straits	2004-2008	Diamond/RC	23,071
ELG136-187	Red River Resources	2020-2022	Diamond	4,292

#### Table 13 Eleanora and Garibaldi Mining Centre drilling summary

## **Metz Mining Centre**

The Blacklode and Sunlight lodes were diamond drilled from underground by Straits (2004 to 2009), initially with holes targeting Black Lode. In 2016 and 2017, Hillgrove conducted an intensive underground diamond drilling program (51 holes) focused on Sunlight as a potential high-grade gold opportunity. Of the 51 holes, 43 targeted the deposit to the west and below the old workings on a nominal 30m x 30m grid. The remaining holes were drilled below the 1300 mRL on a wide spaced grid to test the continuation of the high-grade gold mineralisation down dip (Table 14). An additional 14 holes were drilled through 2022 targeting Sunlight East and central Blacklode.

#### Table 14 Sunlight and Blacklode drilling summary

Drill Hole Prefix	Company	Year	Drilling Method	Total Length (m)
BLS/SUN/BLK/CXL	Straits	2004-2009	Diamond	10,847
BLK/SUN	Hillgrove	2013-2017	Diamond	22,266
BLK/SUN	Red River Resources	2022	Diamond	4,695

The Syndicate Lode was mined by Straits between 2007 and 2011 and is the most extensively drilled of the Hillgrove deposits. Straits drilled 4 reverse circulation (RC) holes from surface and 96 diamond holes (surface and underground) during a 5-year period from 2005 to 2009. The majority of diamond holes were drilled from underground drill positions for resource definition purposes. Hillgrove completed a further 31 diamond drill holes between 2013 and 2015 (Table 15).

#### Table 15 Syndicate drilling summary

Drill Hole Prefix	Company	Year	Drilling Method	Total Length (m)
162/165	NEAM	1996-1997	Diamond	810
BLS001	Straits	2004	RC	269
BLS/BLK/SYN	Straits	2005-2009	Diamond	10,420
SYN/SMW	Hillgrove	2013-2015	Diamond	4,404
Face Samples	NEAM/Straits/Hillgrove	1998-2015	-	5,200



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## **Brackins Spur**

At Brackins Spur, a total of five significant drill programs have been undertaken over a 35-year period. From 1982 to 1984, Freeport Australia completed a program of diamond (11) and percussion (9) holes from the surface along a strike length of 1.5km. Omega Mines followed in 1985/1986 with a further nine diamond holes from surface, which included the Choppers Gully extension to the south. Straits infilled the previous programs in 2007/2008 with 23 diamond drill holes from the surface, focusing on the northern end of the deposit, downdip and below the historical workings. Recent diamond drilling by Hillgrove was completed from new underground development, to expand Straits drilling at depth and to test the continuity of mineralisation down dip (Table 16).

Drill hole Prefix	Company	Year	Drilling Method	Total Length (m)
DDBS1-DDBS11	Freeport Australia	1982/1984	Diamond (NQ, NQ3)	1,641
PDH1-PDH9	Freeport Australia	1982/1984	Percussion	695
DDBS12-DDBS20	Omega Mines	1986	Diamond (HQ3)	627
BRK001-BRK023	Straits	2007/2008	Diamond (BQ/NQ or HQ/NQ2)	7,514
BRK024-BRK040	Hillgrove	2016/2017	Diamond (NQ2)	3,499

## **Clarks Gully**

Drilling at Clarks Gully is a combination of percussion, reverse circulation (RC) and diamond drilling carried out by three companies over a 27-year period. New England Antimony Mines (NEAM) completed 65 percussion holes to a maximum depth of 24m to define the trace of the main lode in 1990-1993. The results defined an oxide gold resource which was mined via a small open cut. From 2004-2005, Straits drilled 43 reverse circulation holes (seven with diamond tails) outlining a gold-antimony resource down to 250m depth. Recently Hillgrove infilled previous programs and extended the main zone of mineralisation along strike with 27 diamond drill holes from surface (Table 17).

Drill hole Prefix	Company	Year	Drilling Method	Total Length (m)
HS	NEAM	1990-1993	Percussion	990
Costeans	NEAM	1991	-	176
	Straits	2004-2005	RC	4,010
CLG001-CLG043	Straits	2004-2005	RC & Diamond Tails	1,952
CLG044-CLG070	Hillgrove	2014-2016	Diamond	2,254



# Mineral Resources

The updated Hillgrove Mineral Resource (JORC 2012) for the PFS Ore Reserve study is 7.264 kt @ 4.4g/t gold and 1.3% Antimony and 7.4g/t AuEq as shown in Table 18.

The updated resource incorporates additional drilling completed in 2022 in the Metz and Garibaldi Resource areas. The updated Metz and Garibaldi Resource areas are reported to a 3g/t AuEq cut off based on current price and recovery assumptions. No change has occurred to the Clarks Gully and Brackins Spur Mineral Resource areas, these are reported to a 5g/t Au eq cut off based on price and recovery assumptions at the time of estimation (August 2017). Additional Stockpile material has been included in the Hillgrove Mineral Resource due to its potential as a mill commissioning material, it has been reported to a 0.5g/t Au cut-off.

Both gold and antimony that are included in the gold equivalent calculation ("AuEq") are recovered at Hillgrove.

The AuEq calculation is:  $AuEq (g/t) = Au^g + Sb^g x E$  where  $E = (Sb^p x Sb') / ((Au^p / T^{o_z}) x Au')$ 

E = Equivalency Factor  $Au^p$  = Gold price (US dollars per ounce)  $Au^g$  = Gold grade (g/t)  $Au^r$  = Gold recovery (%)  $Sb^p$  = Antimony price (US dollars per tonne)  $Sb^g$  = Antimony grade (%)  $Sb^r$  = Antimony recovery (%)  $T^{Oz}$  = Troy Ounce (31.1035)

Mineral Resources for Clarks Gully and Brackins Spur, estimated in August 2017 were reported at 5g/t AuEq cut-off, using an Equivalency Factor of 1.88.

Mineral Resource estimates for the Metz and Garibaldi areas were updated for drilling completed in 2022. Selling prices for antimony and gold were updated in July 2024 and the Equivalency Factor recalculated at 2.281.

Classification	Tonnage (kt)	Grade Au (g/t)	Grade Sb (%)	Au Eq. (g/t)	Contained Gold (koz Au)	Contained Sb (kt Sb)
Measured	448	3.6	3.8	12.1	51	17
Indicated	3,980	4.8	1.3	7.7	617	50
Measured & Indicated	4,429	4.7	1.5	8.1	668	67
Inferred	2,835	4.0	0.9	6.1	367	26
Total	7,264	4.4	1.3	7.4	1,036	93

Table 18 Hillgrove Gold-Antimony Project - Mineral Resource

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.

Au equivalent (Au Eq.) grade reported using metal selling prices, recoveries and other assumptions as outlined in Mineral Resources on p28. Mineral Resource cut off and Source:

Cut-off grade for Metz (Syndicate, Blacklode & Sunlight) and Garibaldi (Eleanora-Garibaldi) Mineral Resources are 3.0g/t Au Eq. (5 Aug 2024). Cut-off grade for Clarks Gully & Brackins Spur Mineral Resources are 5.0g/t Au Eq. (calculated with selling prices, recoveries, and other assumptions at the time of estimation: AMC Consultants Pty. Ltd. Hillgrove Mineral Resource Estimate, August 2017 (LRV Dec 22, 2023)



A		Tonnes	Gra	ade	Au Eg.	Contained Metal	
Area	Classification	(kt)	Au (g/t)	Sb (%)	(g/t)	koz Au	kt Sb
	Measured	205	4.4	4.4	14.4	29	9
	Indicated	1,778	4.9	1.3	7.8	279	22
Metz	Measured & Indicated	1,984	4.8	1.6	8.4	308	31
	Inferred	1,031	3.1	1.0	5.5	104	10
	Total	3,015	4.3	1.4	7.4	412	42
	Measured	-	-	-	-	-	-
	Indicated	1,466	5.2	0.9	7.3	245	13
Garibaldi	Measured & Indicated	1,466	5.2	0.9	7.3	245	13
	Inferred	879	4.5	0.4	5.5	127	4
	Total	2,346	4.9	0.7	6.6	372	17
	Measured	170	1.9	4.2	11.5	10	7
	Indicated	96	2.1	3.1	9.2	6	3
Clarks Gully	Measured & Indicated	266	2.0	3.8	10.6	17	10
	Inferred	-	0.8	3.0	7.6	-	-
	Total	266	2.0	3.8	10.6	17	10
	Measured	73	5.1	0.9	7.2	12	1
	Indicated	640	4.2	1.8	8.3	86	12
Brackins Spur	Measured & Indicated	713	4.3	1.7	8.2	98	12
	Inferred	870	4.8	1.3	7.8	134	11
	Total	1,583	4.6	1.5	8.0	233	23
	Measured	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-
Stockpiles	Measured & Indicated	-	-	-	-	-	-
	Inferred	54	1.0	0.5	2.1	2	-
	Total	54	1.0	0.5	2.1	2	-
	Measured	448	3.6	3.8	12.1	51	17
	Indicated	3,980	4.8	1.3	7.7	617	50
Total	Measured & Indicated	4,429	4.7	1.5	8.1	668	67
	Inferred	2,835	4.0	0.9	6.1	367	26
	Total	7,264	4.4	1.3	7.4	1,036	93

Table 19 Hillgrove Gold-Antimony Project - Mineral Resource by Mining Area

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.

Au equivalent (Au Eq.) grade reported using metal selling prices, recoveries and other assumptions as outlined in Mineral Resources on p28. Mineral Resource cut off and Source:

Cut-off grade for Metz (Syndicate, Blacklode & Sunlight) and Garibaldi (Eleanora-Garibaldi) Mineral Resources are 3.0g/t Au Eq. (5 Aug 2024). Cut-off grade for Clarks Gully & Brackins Spur Mineral Resources are 5.0g/t Au Eq. (calculated with selling prices, recoveries, and other assumptions at the time of estimation: AMC Consultants Pty. Ltd. Hillgrove Mineral Resource Estimate, August 2017 (LRV Dec 22, 2023)



# Geotechnical

OreTeck Mining Solutions (OTMS) provided an independent geotechnical assessment of the geotechnical conditions expected to be encountered during underground mining at Hillgrove, for this study. The assessment included review of all available geotechnical data and reports, and a site visit to observe site conditions and review the preliminary mine plan.

Previous geotechnical work reviewed in the assessment are:

- 2024 (OreTeck Mining Solutions)
- 2015 (Ground Control Engineering Pty Ltd)
- 2015 (Hard Rock Geotechnical Engineering Pty Ltd)
- 2014 (Hard Rock Geotechnical Engineering Pty Ltd)
- 2013 (Ground Control Engineering Pty Ltd)
- 2007 (Kevin Rosengren & Associates)
- 2005 (Kevin Rosengren & Associates)

The assessment by OTMS supported the inclusion of the mining areas into the Ore Reserve, although the limited available geotechnical data needs to be supplemented by further work as part of the feasibility study and prior to mining.

## Geotechnical Data

OTMS determined that geotechnical data coverage is limited, although this is offset by having access to underground workings to observe conditions.

- RQD logged drillholes cover the targeted portions of the various mining hubs, but data coverage is limited.
- RQD logging has been collected using default RQD categories and are potentially biasing toward poorer ground conditions.
- No laboratory testing is available for intact rock properties.
- Hillgrove Mine is not considered a high-stress mining environment, but mining-induced stress, especially low confinement zones, can impact stope and pillar stability, and should be numerically modelled.

## Open Pit

The slope design criteria and pit designs were reviewed by OTMS and considered to be appropriate for the expected ground conditions.

A high-level slope stability assessment was conducted using a Geological Strength Index (GSI) value of 20 and 50 for weathered and fresh rock mass conditions, respectively. The fresh rock GSI value was based on assessment of the drillhole database assessment. The weathered zone GSI was estimated using geotechnical judgment for a high-level assessment of the open pit slope stability for preliminary commentary.

Figure 10 shows the slope design aspects for Clarks Gully.





Figure 10 Slope design aspects, Clarks Gully (looking north)

OTMS's assessment of the open pit slope and pit designs stated that, based on their experience and the preliminary slope assessment that the design geometries adopted for the expected rockmass conditions are appropriate. The assessment indicated that the 45° slope angle for weathered (oxide) material is appropriate and that some displacement should be expected at the base of the weathered zone, which is typical behaviour in open pits.

The overall slope geometry for the fresh rock is also considered appropriate, given the expected Good rock mass conditions.

The design criteria for Clarks Gully are considered appropriate to be applied as a first pass for the Garibaldi pit design.

# Underground

The OTMS assessment of geotechnical inputs into the underground mine plan are summarised as:

- Nominal stope design criteria of 2.8 m average realised stoping width for the 7.5m long x 20m wide stope panels is considered appropriate for most areas of the mine.
  - Compared well with previous mining in 2015, when 23 stopes were mined, ranging from 8.0-20.0m strike length:
  - Stopes >10m (average length 16.2m), achieved average mined width of 3.3m;
  - Stopes <10m (average length 8.2m), achieved average mined width of 2.2m.
  - Poorer conditions in Blacklode mean a wider realised stope width should be considered as further geotechnical data is gathered in future stages of the project. Reducing stope length in Blacklode should be offset in other areas with better ground conditions where 7.5m strike lengths could be extended.



- Ground support standards applied to build the mine schedule and cost estimate are appropriate for the observed ground conditions.
- RQD logged drillholes cover the targeted portions of the various mining hubs, but data coverage is limited.
- RQD logging has been collected using default RQD categories and are potentially biasing toward poorer ground conditions.
- No laboratory testing is available for intact rock properties.
- Hillgrove Mine is not considered a high-stress mining environment, but mining-induced stress, especially low confinement zones, can impact stope and pillar stability, and should be numerically modelled.

# Further Work

OTMS recommended the following be completed as part of the feasibility study prior to commencement of mining:

- Data collection:
  - Validation of current RQD logging database with photo-logging techniques;
  - Geotechnical logging procedure modified to include all of the Q parameters and logging results to be used to update the factors used in this assessment;
  - o Laboratory rock property testing of core samples collected during geotechnical logging;
  - Assessment of in-situ stress, using the acoustic emission method to determine the magnitude and orientation of the in-situ stress field.
- Data analysis:
  - Analyse and interpret mapping of cross-cutting structures to include on the structural model and use this to refine the mine design;
  - Complete an open pit slope geotechnical design assessment, including a kinematic assessment, for Clarks Gully and Garibaldi Pits;
  - When the structural database has been sufficiently compiled with geotechnical logging of orientated core and underground mapping, complete a kinematic assessment and optimisation of the ground support standards for underground mining.
  - When the in-situ stress field is defined, carry out Numerical modelling the underground development and stope excavations to identify potential stability issue and use this to refine the mine design.
- Design refinement:
  - Inter-level spacing minimum of 15m floor to back, ideally 20m; with a staggered and enechelon stoping with lead lags determined following numerical modelling;
  - Decline located 50-60m in footwall to orebody;

Once mining commences, OTMS recommended that additional RQD and full geotechnical logging should be conducted with future resource drilling programs, to increase geotechnical data density and



understanding of the rock mass. This will in turn, highlight areas that may require changes to the mining strategy.

Additionally, as development progresses the preferred stress measurement method of over-coring with a hollow inclusion cell underground and subsequent bi-axial testing can be conducted to improve confidence in the initial acoustic emission measurements completed for the feasibility study.

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# Hydrology & Hydrogeology

The New England Fold Belt acts as a fractured-rock aquifer, with groundwater contained within, and moving through, fractures in the rock that are present due to tectonic folding and faulting of the rock formations. Yields are typically low, around 1 L/s (NSW DPI, 2016b), with groundwater typically recharged by direct rainfall infiltration. Direct recharge, combined with significant mineral leaching that has occurred over time, results in typically good quality water.

The Bureau of Meteorology's Groundwater Dependent Ecosystems (GDE) Atlas was reviewed for any potential groundwater dependent ecosystems in the area: All areas surrounding the mine were classified as low potential GDE areas.

Further, no GDEs or groundwater-dependent culturally-significant sites have been identified in the area of Hillgrove Mine under the Water Sharing Plan for the Macleay Unregulated and Alluvial Water Sources.



Figure 11 The main water management infrastructure at Hillgrove Mine

Water management infrastructure for the mine (Figure 11) consists of the following elements:

- Two tailings storage facilities (TSF1, TSF2)
- Three water storage dams (Eleanora, ES1, ES2)
- Dewatering line from Metz Underground to ES1 dam (including Lower Cooney shaft and adit, see below)



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- Network of historic underground workings and adits used for dewatering and water storage, including:
  - Metz Underground (about 1,500m west of the water storages)
    - Syndicate area (accessible workings)
    - Sunlight area (historic workings, including four known adits)
  - Lower Cooney (monitored adit and shaft, part of the mine dewatering network which will be utilised to transfer water to Metz Underground)

The water treatment plant consists of:

- Pre-treatment: Chemical dosing (for alkalinity and coagulant) and mixing/residence tanks
- Clarifiers
- Micro-filtration
- Reverse Osmosis.
# Mining Methods & Ore Reserves

Mining will be dominantly by underground methods, with two open pits extracted early in the project life to supplement underground production and provide construction material for infrastructure as shown in Figure 12.



Figure 12 Longitudinal view showing mining areas at Hillgrove, with previously mined and proposed mining areas.

## Open Pit Mining

Open pits will be mined at the top of Garibaldi and Clarks Gully, prior to commencement of underground mining at each area.

The two open pits will be mined utilising conventional drilling, blasting, loading and hauling systems.

Pit optimisation was done by generating multiple pit designs to varying depths, then estimating costs (with consideration of vertical rate constraints) and revenue generated, from which the optimal design was selected. This methodology allowed waste volumes to be considered in the selection process, with waste deployed for construction of infrastructure, reducing the cost to construct that infrastructure.

Pit design criteria were:

- 120t class excavator and 40t articulated dump trucks;
- 1:7 ramp; and
- Inter-ramp slope angles: 36° for oxide, 42° transitional, 55° for fresh rock.

Pit design quantities are shown in Table 20 below.



	Unit	Garibaldi Pit	Clarks Gully Pit	Total
	'000 bcm	75	137	212
	kt	138	247	384
	Au g/t	2.67	1.42	1.87
Ore	cont. Au koz	11.8	11.3	23.1
Ore	Sb%	1.08%	2.08%	1.72%
	cont. Sb kt	1.5	5.1	6.6
	Au eq g/t	5.13	6.16	5.79
	Au eq koz	22.7	48.9	71.6
Maata	'000 bcm	731	1,433	2,164
Waste	kt	1,971	3,506	5,477
	'000 bcm	807	1,570	2,377
All Waterial	kt	2,108	3,752	8,238
Total	Waste : Ore ratio	14.3	14.2	14.3

Table 20 Open pit design quantities, by pit (dilution and mining recovery applied)

The open pit mining schedule was developed by referencing estimated load and haul productivity against the bench-by-bench mining physicals for each mining stage.

The calculated load and haul productivity includes allowance for:

- Excavator and truck capacity matching (volume and mass);
- Equipment availability and utilisation;
- Effect of haulage distances and truck numbers on fleet productivity (hauling cycle);
- Maximum vertical rates of advance for constrained mining stages.

For each scheduling period, utilisation factors are calculated (roster, travel delays, shift breaks, blasting, weather, equipment availability and miscellaneous works) to estimate the effective loading hours. The load and haul productivity is then applied across the effective hours to determine the productive capacity during the period. The proposed selection of mining fleet for the open pit operation is outlined in Table 21.

Mining at each pit is scheduled to commence:

- Garibaldi Pit: 5 months prior to plant commissioning, waste used for TSF2 construction;
- Clarks Gully Pit: 9 months after plant commissioning, on completion of mining at Garibaldi.

Scheduled movements across the open pits in the first years are illustrated in Figure 13.

Mining at Garibaldi includes extraction of the cut material from the basin of TSF2-West which will be mined in parallel with the Garibaldi pit. Material cost savings are realised from the increased fleet efficiency of mining the two areas concurrently.

The basin of TSF2-West is all waste material and adds 1,244 kt (481 k.bcm) to the Garibaldi plan increasing project life to 14 months, compared to 12 months if only the Garibaldi Pit were mined.





Figure 13 Open pit scheduled movements, by material type

Table 21	Open pit	mining	equipment fleet	

Function	Model (nominal)	Number of Units
Load & Haul - Primary		
Excavator	Komatsu PC1250	1-2
Dump Truck	Cat 740	3-5
Load & Haul - Ancillary		
Dozer	Cat D9	1
Grader	Cat 14	1
Water cart	Cat 740WC	1
Wheel Loader / IT	Cat IT28	1
Drilling		
Tophammer drill	Epiroc T40/T45	3-5

# Underground Mining

Underground mining will be deployed at Metz, Garibaldi, Clarks Gully and Brackins Spur utilising the modified Avoca method with conventional drilling, blasting, loading, hauling and backfill systems.

Optimisation was completed by generating preliminary stope blocks for all mineralisation in the resource block model, down to the preliminary minimum mining width (MMW), or the vein thickness, whichever was wider. The geometry of the mineralised veins is such that in almost all areas, the preliminary MMW was the defining width, with the ore vein wider in very few areas.



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Optimisation scenarios were developed across the cut-off grade range of 3.0 – 5.0 AuEq g/t, by:

- Selecting preliminary stope blocks above the applicable cut-off;
- Estimation of physicals for selected stopes (tonnes, grade, metres);
- Develop high-level schedule by quarter over the life of mine to estimate UG ore supply;
- Processing schedule using ore supply from UG and OP to determine plant throughput;
- Calculation of costs, revenue and pre-tax cash flows for each scenario.

Results showed that optimal project value is created at a cut-off of 3.5 AuEq g/t (before modifying factors). Stope blocks for mine design were selected from this scenario and optimal plant throughput was determined to be 500-540 kt/yr.

Optimisation shapes were used to develop designs for underground development and stoping with the following criteria:

- Level spacing: 15-20m;
- Drive profile: 5.0x5.0m Capital and 4.5x4.5m Operating;
- Ramp gradient: 1:7
- Min. Mining Width: 2.8 m (stope width achieved)
- Stope Dilution: 1.0 m endwall (13.33% on 7.5m panel)
- Stope Recovery: 95% after dilution

Ground support will be installed as friction bolts and mesh to grade line. Existing development in Metz will require full re-installation along 1.1km of ore drive and upgrading with mesh on wall along 1.7 km.

Access and haulage from each mining area will be via:

- Metz: existing portal in Metz Gully, via the Gorge Haul Road to the ROM;
- Garibaldi: new portal established in Garibaldi Pit;
- Clarks Gully: new portal established in Clarks Gully Pit, with road haulage of ore to ROM;
- Brackins Spur: initial access from existing portal and Brackins Spur Haul Road, then via Garibaldi decline, after Garibaldi-Brackins link drive breakthrough.

OreTeck Mining Solutions (OTMS) input the underground design strings as a model in Deswik software to generate the design quantities (Table 22) and create the underground mining schedule.



	unit	Metz	Garibaldi	Clarks Gully	Brackins Spur	Total
Dev't, Operating	km.adv	6.9	4.7	0.7	7.8	20.1
Dev't, Capital	km.adv	7.8	8.0	1.4	6.4	23.5
Dev't, Total	km.adv	14.6	12.7	2.1	14.2	43.7
Dev't, Rehab	linear.m	2.9	-	-	-	2.9
Vertical Dev't	km	0.9	0.8	0.2	0.8	2.8
Ore, Dev't	kt	253	200	40	318	811
Ore, Stope	kt	850	455	123	785	2,213
	kt	1,103	656	163	1,103	2,213
	Au g/t	3.78	3.68	1.91	2.81	3.31
	cont. Au koz	134.1	77.6	10.0	99.8	321.5
Ore, Total	Sb%	1.19%	0.89%	2.57%	1.10%	1.17%
	cont. Sb kt	13.2	5.8	4.2	12.2	35.3
	Au eq g/t	6.51	5.71	7.76	5.33	5.97
	Au eq koz	230.7	120.3	40.6	188.9	580.5
Waste	kt	631	585	90	513	1,819

Table 22 Underground design quantities, by area (dilution and mining recovery applied)

The underground mining schedule was developed using Deswik software by:

- Creating dependency links between activities
- Constraining by milestone start dates
- Allocating development capacity (jumbo advance) as the primary rate determining activity
- Constraining stope production in periods of excessive production.

Constraint start dates for starting development in each mining area are:

- Metz: 6 months prior to plant commissioning
- Garibaldi: 9 months after plant commissioning (after Garibaldi Pit completed)
- Clarks Gully: 24 months after plant commissioning (after Clarks Gully Pit completed)
- Brackins Spur: 18 months after plant commissioning, with ore mining 44 months after commissioning (after Garibaldi-Brackins link drive breakthrough).

For each scheduling period, utilisation factors are applied to estimate the required mining fleet (Table 23) and personnel requirements.

Scheduled development and tonnes of ore mined over the life of the mine are illustrated in Figure 14 and Figure 15 respectively.





Figure 14 Underground scheduled development, by type



Figure 15 Underground scheduled ore mined, by mining area



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### Table 23 Underground mining equipment fleet

Function	Model (nominal)	Number of Units
Drilling		
Development Jumbo	Sandvik DD421	2-4
Production Drill	Sandvik DL431	2-3
Load & Haul		
Loader	Sandvik LH514	2-4
Truck	Sandvik TH545	3-4
Ancillary		
Charge-up Unit	Charmec	2
IT	Volvo L120	3-4

## **Ore Reserves**

Ore Reserves have been calculated using cut-off grades with input parameters, cost inclusions and applied cut-off grades shown in Table 24.

Parameter	Input to Cut-off Grade Calculation				
Selling Prices for Cut-off					
Gold		US\$ 11,000 /t			
Anitmony		US\$ 1,850 /oz			
A\$:US\$ Exchange		0.670			
Costs Included in Cut-off	Open Pit	Underground	Stockpiles		
Operating Development	No	Yes	No		
Stoping	No	Yes	No		
Grade Control	Yes	Yes	No		
Incremental Haulage	Yes	No	Yes		
Processing	Yes	Yes	Yes		
TSF (LOM average)	Yes	Yes	Yes		
Site G&A	Yes Yes Yes				
Cut-off Grade (Au Eq g/t)	1.36	2.80	1.25		

### Table 24 Cut-off grades, input parameters and cost inclusions

Open pit Ore Reserves were estimated by:

- Interrogation of resource block model against pit design at cut-off grade of 1.36g/t AuEq (1.7g/t AuEq, before dilution) to report tonnes and grade of ore and waste;
- Application of modifying factors (mining dilution and recovery) to estimate the Ore Reserve:
  - Mining Dilution: 25% additional tonnes at zero grade
  - Mining Recovery: 95%.



• The Mineral Resource informing the open pit Ore Reserves includes both Measured and Indicated material. All open pit Ore Reserves are classified as Probable as there is insufficient confidence in the mining dilution and recovery factors to support classification as Proved, due to the lack of operating history of open pit mining at Hillgrove.

Underground Ore Reserves were estimated by:

- Interrogation of resource block models against mine design shapes (with 2.80 minimum mining width) to report tonnes and grade of mining shapes;
  - Application of modifying factors to stopes (mining dilution and recovery);
    - Mining Dilution: 13.33% additional tonnes at zero grade
    - Mining Recovery: 95% for downhole stopes and 60% for uphole stopes (sill pillars).
- Inclusion of design shapes above cut-off grade of 2.80 g/t Au Eq (with dilution).
  - Mining shapes classified by material within the wireframe, where:
    - Measured resource >95%, classified as Proved Reserve;
    - Indicated and Measured resource >95%, classified as Probable Reserve (if not Proved);
    - Indicated resource <95%, excluded from Ore Reserve.

	Classification	Tonnes (Mt)	Au Grade (g/t)	Sb Grade (%)	AuEq Grade (AuEq g/t)	cont. Au (koz)	cont. Sb (kt)	cont. AuEq (AuEq koz)
Open Pit	Probable	0.38	1.9	1.7%	5.8	23	6.6	72
Underground	Proved	0.39	2.6	1.9%	6.9	32	7.5	87
Underground	Probable	2.38	3.5	1.0%	5.8	264	24.9	447
Total Ore Reserves		3.15	3.2	1.2%	6.0	320	39.0	606

### Table 25 Hillgrove JORC 2012 Ore Reserve Estimate

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.

The total LOM Production Target includes 5% Inferred Resources, 3% Indicated Resources outside of Ore Reserves, and 92% Ore Reserves (percentages are for contained Au Eq. ounces).

Cut-off grades applied after modifying for dilution.

Gold equivalent (Au Eq.) has been calculated using the metal selling prices, recoveries and other assumptions as outlined in the Mineral Resources chapter on p28.

Cut-off grades are 1.36 Au.Eq g/t for open pit and 2.80 Au.Eq g/t for underground

# Life-of-Mine Production Target

The LOM production target for the PFS includes the Ore Reserve (open pit and underground), plus additional material included in the underground mine design and defined by Indicated and Inferred Resources and outside the Ore Reserve. Non-Reserve material in the mine design includes:

- Indicated Mineral Resources, where the mining shape (stope or development) includes more than 5% Inferred material by contained metal;
- All Inferred Mineral Resources.

Cut-off grades and calculation methodology for the LOM production target are the same as for the Ore Reserve, with the inclusion of Inferred Mineral Resource.



c	assification	Tonnes	Au Grade	Sb Grade	AuEq Grade	cont. Au	cont. Sb	cont. AuEq
		(Mt)	(g/t)	(%)	(AuEq g/t)	(koz)	(kt)	(AuEq koz)
Open Pit	Measured	0.20	1.4	2.4%	6.8	10	4.9	46
Open Pit	Indicated	0.18	2.4	1.0%	4.6	13	1.7	26
Underground	Measured	0.42	2.6	1.9%	7.0	35	8.2	95
Underground	Indicated	2.44	3.5	1.0%	5.8	272	25.1	457
Underground	Inferred	0.15	2.9	1.3%	5.8	14	2.0	29
Stockpiles	Inferred	0.05	1.0	0.5%	2.2	1.6	0.3	4
Total Life- Production	of-Mine n Target	3.45	3.1	1.2%	5.9	346	42.2	656

### Table 26 Hillgrove Life-of-Mine production target

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.

Cut-off grades applied after modifying for dilution. Gold equivalent (Au Eq.) grades reported using metal selling prices and recoveries and other assumptions as outlined in the Mineral Resources chapter chapter on p28. Cut-off grades are 1.36 Au.Eq g/t for open pit, 2.80 Au.Eq g/t for underground and 1.25 Au.Eq g/t for stockpiles

### Table 27 Summary of Modifying Factor Assumptions

Activity	Minimum Mining Width	Unplanned Dilution	Mining Recovery
Open Pit	n/a	25%	95%
Underground, Development	n/a	nil	100%
Underground, Stoping (downholes)	2.8 m	13.33%	95%
Underground, Stoping (upholes / sill pillars)	2.8m	13.33%	60%

# Metallurgy

The PFS metallurgical recoveries were developed using historical operating data whilst the plant was being operated under other management. The Gravity Recoverable Gold (GRG) circuit was installed whilst the plant was under the management of Red River Resources and recoveries of GRG has been estimated using data from a three-month period in 2021. With antimony flotation being excluded during this period of operation, the recovery to stibnite and arsenopyrite concentrates were sourced from 2015 operating data.

The GRG recovery represents an average of daily data from the 13th of July 2021 to the 29th of September 2021, with the range varying from 36.2% to 64.2%, with an average of 48.9% with the mill feed grade ranging between 1.25 and 2.21g/t Au.

The full year 2015 data represents a period when both stibnite and arsenopyrite concentrates were being produced and mill feed grade ranging between 1.16 and 3.38 g/t Au and 0.95 and 3.83% Sb. Regressions based on the mill feed grade were developed for the recovery of gold and antimony to the concentrates. These grades have been applied to the annualised resource plant feed grades. Life of Mine recoveries to payable is estimated to be 83.1% and 86.0%, gold and antimony respectively.

Additional mineralogical and metallurgical testwork is underway to assess:

- Recovery to gravity recoverable gold
- Optimum grind size for antimony flotation / impact on residence time and recovery
- Optimum grind size for gold flotation / impact on residence time and recovery



## Process Plant

The Hillgrove mine has been in care and maintenance since 2022, with a regular inspection and maintenance program in place. At that time, all circuits in the plant were operating normally with:

- Gravity circuit to produce gold doré
- Float circuit to produce gold concentrate
- Tails grade of 0.4g/t from a 1.4g/t head grade
- 220ktpa milling rate

The current process incorporates single stage crushing in open circuit, milling in closed circuit, gravity to remove the gravity recoverable gold, antimony flotation and gold flotation to product a gold doré, antimony concentrate and gold concentrate.

Table 00 Mass	helenee		bood	a la la interviera l	a manual time.	1-4-
Table 28 Mass	parance	summary	pased (	on historical	operating	aata

Stream	Solids (tph)	Solids (tpa)
ROM Feed	145	551,000
Primary Crusher Feed	78	296,400
Secondary Crusher Feed	100	380,000
Primary Mill Feed (fresh feed)	68	552,228
GRG Circuit Feed (recirc load)	237	1,924,677
Feed to 20 Inch Knelson	80	640,000
Antimony Rougher Flotation Feed	72	584,712
Antimony Cleaner Flotation Feed	7.2	58,471
Antimony Concentrate	3	24,363
Gold Rougher Flotation Feed	68	552,228
Gold Cleaner Flotation Feed	5	40,605
Gold Concentrate	1.9	15,430
Tails	62.9	510,810

NOTE: Minimum recommended gravity recoverable flowrate is 30% of mill recirculating load. A 20inch Knelson is rated for 80tph and therefore a bypass is provided on the sizing screen underflow to divert excess flow to cyclone overflow. Higher gravity circuit feed rates can be achieved by upgrading to a 30inch Knelson or 40inch Knelson. After the results from testwork are known, additional evaluation can be undertaken to determine the best size of gold concentrator for free gold recovery.

In 2024, Mincore Pty Ltd conducted a visual mechanical, structural and electrical inspection of the Hillgrove operation to assess the condition of the plant and undertook a desktop scoping study on the process requirements to expand the plant to 536ktpa. A restart draft Block Flow diagram showing existing and new equipment is seen in Figure 16 and an engineering schematic showing the layout of the process plant with new equipment is seen in Figure 17.



Area	P1 Scope
Primany Crushing	<ul> <li>Install grizzly feeder to bypass fines from jaw crusher</li> </ul>
Fillinary Grushing	- Install secondary crushing circuit to produce a P <sub>80</sub> =10mm product
Oro Storago	- Double capacity of fine ore storage
Ole Storage	- Provide emergency stockpile and reclaim
	- Convert grate discharge SAG mill to ball mill (overflow)
	- Replace Cyclone Cluster to increase primary grind size to 180 microns
Milling	- Replace trash screen
	- Upgrade mill discharge (gravity screen feed) pumps
Gravity Gold Recovery	- Replace gravity sizing screen
Gravity Gold Recovery	- Upgrade cyclone feed pumps
	- Duplicate the Antimony Rougher Circuit using existing Gold Rougher Cells
Flotation & Regrind	- Add new 1 x 50m <sup>3</sup> cell as Rougher Cell for the Gold Flotation Circuit
	- Install Regrind ball mill & cyclone cluster
Concentrate Thickening & Filtration	- Upgrade existing Gold & Antimony thickeners and filters.
	Minor improvements to gold room include:
	Install Office
Gold Room	Settling Cone for EWC sludge Washbox
	New barring furnace
Reagents	- Provide new pumps and increase dosing rates
Teilinge	- Install a new tailings thickener
l ailings	- Install new tailings pumps (in series) and tailings line
Plant Services (Water)	- Install larger process water tank and pump upgrades
Power Supply & Reticulation	- Repair or replace Main Transformer



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Figure 16 Hillgrove restart draft Block Flow diagram



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Figure 17 Layout of the process plant with new equipment



# Infrastructure



Figure 18 Hillgrove Project – Main Infrastructure Area

## Site Facilities

Infrastructure on site currently includes (Figure 18):

- Maintained facilities (proposed for use in this study):
  - o 250 ktpa capacity Processing plant, including:
    - Jaw crusher;
    - SAG/Ball mill;
    - Selective flotation circuit;
    - Gravity gold circuit (intensive leach reactor and gold room)
  - o Run-of-Mine (ROM) ore pad
  - o 10MVA 66/11kV main transformer
  - o Workshop (mechanical and electrical) and warehouse/stores yard
  - Metallurgical laboratory
  - o Administration offices and ablutions/changerooms
- Inoperable facilities (not proposed for use)
  - Antimony SX/EW circuit
  - o Antimony casting plant
  - Pressure-oxidation circuit (POX)

The processing plant is planned to be upgraded to 500-550ktpa capacity, with a plan of the upgraded plant in Figure 17.



Other facilities and equipment in place on site are a first aid/emergency response centre and underground capable ambulance.

## **Tailings Storage Facilities**

Tailings storage is critical infrastructure at Hillgrove, given the relatively small available area, challenging topography and proximity to both neighbours and waterways with sensitive downstream receivers.

There are two current tailings facilities on site at Hillgrove. TSF1 is not operated and is not proposed to be used for the purposes of this study.

TSF2 is the current actively operated tailings facility and was last deposited to in 2022. It is a fully HDPE (high-density polyethylene) lined modern tailing storage facility constructed in 2006 and is the design model for other future tailings facilities planned for construction on site. TSF2 is permitted to raise 9m higher than its current level (1-2 years of production capacity), although requires raising to recommence production as the current lift is effectively at capacity.

Figure 19 shows the current site infrastructure at Hillgrove, including locations of:

- Metz, Garibaldi and Brackins Spur mines;
- Process Plant; and
- TSF1 and TSF2.

Infrastructure development is largely driven by providing tailings capacity to enable production. To provide life-of-mine tailings capacity, infrastructure will be permitted and developed in two phases.

The first phase of infrastructure development will occur during the pre-production period, prior to plant commissioning. It includes:

- TSF2 Stage 3:
  - Raise TSF2 to full permitted height
  - o Constructed with waste rock from Garibaldi Pit
  - Capacity for 0.67Mt tailings (dry)
- TSF2 West:
  - Extension to west of current facility (requires modification of permit)
  - o Constructed with waste rock from Garibaldi Pit and basin within facility
  - North embankment forms noise and dust abatement bund between mine and residences
  - Capacity for 1.11Mt tailings (dry)

The second phase of infrastructure development will occur during the first two years of production. It is shown is Figure 21 and includes:

- Clarks Gully open pit
- Clarks Gully TSF
  - o Capacity for 3.11Mt tailings, plus additional 1.54Mt in-pit
  - Constructed with waste rock from Clarks Gully Pit
- Pipeline corridor between Hillgrove plant and Clarks Gully (pipes and maintenance track)





Figure 19 Current Hillgrove site infrastructure





Figure 20 Phase 1 of Hillgrove infrastructure development





Figure 21 Phase 2 of Hillgrove infrastructure development



## Accommodation

It is anticipated the site workforce will be sourced residentially from Armidale, supplemented with people commuting from farther afield, as outlined on page 58. Costs have been allowed for accommodation of personnel whilst on site, but specific locations have not been defined in this study. During previous periods of operation, employees commuting from outside Armidale were accommodated in various rental properties, motels and caravan parks in Armidale, plus some company-owned houses in Hillgrove township.

## Power Supply

Hillgrove Mine is currently connected to a 66kV power line which enters site via a step-down transformer, from which HV power is distributed at 11kV.

The 66kV supply is on the regional Essential Energy network, connected to the national grid.

## Water Supply

Water is supplied for mining and processing operations from the following sources (in order of priority):

- 1. Re-use of mine water, after settling of solids.
- 2. Use of surface runoff water (contaminated by surface disturbance) from the Recycled Water Storage System.
- 3. Use of groundwater (contaminated by current and legacy mining voids) via the Recycled Water Storage System.
- 4. Use of water from licensed sources (share components for 74ML industrial use from Town Reservoir and additional 26ML from Bakers Creek and Hillgrove Station).

This supply strategy has provided sufficient water to maintain operations during previous operating periods, although periods of extreme drought have resulted in water storages being drawn to low levels.

During periods where water levels have exceeded operational use, water treatment has been required with the on-site reverse osmosis/microfiltration water treatment plant to enable discharge of excess water.

## Transport

Hillgrove Mine has good road transport links with public sealed roads connecting the mine to the major national road links, providing readily available incoming freight services utilising up to B-Double combinations.

Outbound freight for concentrate products will be by road (26-30t capacity in 1.1t bags) to ports at wither Sydney or Brisbane (Brisbane used previously). Prior to shipping, the 1.1t bags will be transferred to containers for sea freight to international smelters.



# **Environmental & Social**

Larvotto's objectives are to be sustainable and efficient when exploring, producing and ultimately selling products, and to understand and minimise any adverse environmental impacts of its operations or products. In order to support continued global growth and allow for the prosperity of future generations, as well as reducing rising resource costs, Larvotto is committed to minimising waste produced by its operations and managing its demand for natural resources, such as fresh water and energy, including the consumption of carbon-intensive goods and services.

Larvotto's social objectives are to be a responsible corporate citizen in connection with the direct impact on individuals of the exploration of mineral resources and marketing of its final products. In relation to the exploration of mineral and metal resources, Larvotto recognises that it has a responsibility to encourage the responsible exploration of minerals and metals, to avoid waste, and to recycle the waste whenever possible.

In relation to its employment environment, Larvotto observes its obligations under employment and occupational health and safety legislation and implements and maintains systems to facilitate employee well-being and safety.

Larvotto has focussed activities on liaising with directly impacted neighbours such as the communities and businesses that surround its operations. As Projects and approvals progress, communication and engagement will increase. The Company has prepared a Community and Stakeholder Engagement Plan (CSEP) to outline the ways interested and impacted stakeholders can take part during each stage of the Project.

Larvotto Resources' staff and representative consultants have and will continue to communicate and liaise with various stakeholders, including Traditional Owners and those who are recognised as custodians for the land, regulatory bodies, the local community, farmers and the Armidale Regional Council.

NSW Legislation relevant to environmental management at Hillgrove Mine is:

- Protection of the Environment Operations Act 1997
- Protection of the Environment Operations (General) Regulation 2022.

This includes the referenced Commonwealth legislation being the National Environment Protection (National Pollutant Inventory) Measure 1998 made under the National Environment Protection Council Act 1994.

- Protection of the Environment (Clean Air) Regulation 2022.
- Mining Act 1979.
- Mining Amendment (Standard Conditions of Mining Leases Rehabilitation) Reg'n 2021.
- Work Health Safety Regulation 2017 (referred by tenement conditions).
- Fisheries Management Act 1994.
- Multiple acts which protect Aboriginal and European heritage which are addressed by consent conditions, with the key legislation being:
  - Environment Protection and Biodiversity Act 1999, which protects items on the National Heritage List, of which there are none present at Hillgrove Mine.



- Aboriginal and Torres Strait Islanders Heritage Protection Act 1984, which protects Aboriginal heritage where protection is not available at the State level.
- o NSW National Parks and Wildlife Act 1974, protects Aboriginal places, objects and sites.
- NSW Heritage Act 1977, which requires minimum standards of maintenance listed on the Stage Heritage Register, of which there are none present at Hillgrove Mine. The act also protects non-Aboriginal archaeological relics.
- NSW Environmental Planning and Assessment Act, 1979 which incorporates heritage into environmental assessment and development consents.

Environmental aspect	Monitoring undertaken
Air Quality	Hillgrove Mine operates under Environmental Protection Licence (EPL) 921, which requires a dust monitoring network of 11 depositional dust gauges maintained in accordance with AS/NZS 3580.10.1:2003. These gauges are monitored monthly and samples are analysed for antimony, arsenic, lead, mercury, total insoluble matter, total solids and coarse particulates.
Noise and Vibration	Noise monitoring is undertaken on an as required basis to determine compliance with EPL conditions. Noise monitoring will generally aim to be completed at the closest residence in Hillgrove on a bimonthly basis.
Surface water	The EPL requires implementation of a surface water monitoring network around the site. Surface water is monitored monthly and samples are analysed for a variety of analytes.
Groundwater	The EPL requires ground water monitoring of 11 adits around the site. Water from these adits is monitored quarterly and samples are analysed for a variety of analytes.
Erosion and Sediment Control	Suspended solids are measured on a monthly basis at all surface water monitoring locations. In addition, regular inspections are conducted of critical areas within the recycled water storage system for signs of erosion or potential issues.
Hydrocarbons and Chemicals	A register of MSDS for hydrocarbon and chemical products used on the site will be maintained. These record the places of storage and use of each substance. Records of the volumes of use (store issue and fuel farm records) will be kept to track volumes being used. All hydrocarbon and chemical storage and dispensing facilities will be subject to regular inspections.
Waste Management	Regular inspections will be carried out on waste management facilities. Waste tracking data will be received from the waste contractor regularly and the data will be reviewed.
Waste Rock	Regular inspections of waste rock stockpiles will be completed. This generally occur on a monthly basis and is carried out by a qualified engineer. Sampling of waste rock being placed into a stockpile will occur on a six-monthly basis or when there is a significant operational or geological changes (e.g. new parent rock being mined). Testing will be completed for various metals.
Exploration	<ul> <li>Monitoring of exploration activities will include:</li> <li>Regular inspections of drill sites (pre, post and during);</li> <li>Noise monitoring in response to noise complaints;</li> <li>Water, soil, dust sampling and analysis as required; and Inspections of drill site following rehabilitation until completed.</li> </ul>
Aboriginal and European Heritage	Any issues arising at Hillgrove Mine regarding Aboriginal or European heritage will be reported as part of the AEMR process. Any artefacts that require removal or destruction due to mining operations will be reported to the relevant authorities and necessary approvals gained prior to destruction.
Feral Animals and Weeds	Inspections will be completed regularly on areas where there are known colonies of weeds/feral animals until such time as they are effectively controlled or eradicated. Whilst conducting other routines activities (eg. water monitoring) any existence of weeds/feral animals will be noted and recorded for corrective actions. Monitoring for specific weeds and feral animals will be undertaken in accordance with a species specific management plan (contained within the MOP).
Rare and Threatened Flora and Fauna	Issues arising at Hillgrove Mine regarding Rare and Threatened Flora and Fauna will be reported as part of the AEMR process.

### Table 30 Environmental monitoring at Hillgrove Gold-Antimony Mine



# People

Workforce requirements (contractors and employees) for the life of the project are illustrated in Figure 22:

- Construction 45 total
  - o 20 in owner's team
  - 25 construction contractors
- Operations average 190, peak 225
  - o 100-135 underground mining
  - 48-55 open pit mining (Y0-Y3 only)
  - o 45 processing
  - o 15-18 site G&A

The workforce is anticipated to be recruited from three point of hire categories:

- Residential:
  - o local residents of Armidale and nearby towns, including Guyra, Uralla and Ebor.
- Regional Commute:
- residing within three-hour drive Hillgrove who will drive to site and be accommodated locally during their rostered period, then return home for their break.
- Distant Commute:
- residing outside the three-hour drive limit, who will travel to site and be accommodated locally during their rostered period, then return home for their break.

This study allows for personnel to be sourced in approximately equal numbers from each category, although it is expected that initially more people come from the commute categories during the initial year of the mine life, and as time advances and relevant skills are developed locally, residential personnel will increase.



Figure 22 People numbers, by function



# **Capital Cost Estimate**

The LOM capital costs for the project include all development capital, pre-production costs during the construction and ramp-up periods, project contingency, sustaining capital, and post-production capital (over the seven-year life production period), plus mine closure costs. Revenue generated during the three-month processing plant ramp-up period has been capitalised in line with the corresponding site costs. Table 31 summarises the elements and timing of the project capital expenditure)

Capital expenditure (\$M)	Pre-production (construction & ramp-up)	Production (Years 1 to 7)	Closure	Total
Mining, Open Pit	1	7	-	8
Mining, Underground	3	143	-	146
Site and sustaining capital	6	8	-	14
Processing plant	20	26	-	46
Capitalised operating cost	56	-	-	56
Capitalised revenue	(15)	-	-	(15)
First Fill	2	-	-	2
Closure	-	1	9	10
Total	73	185	9	267

Table 31	Project	Capital	Expenditure	Summary
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The processing plant capital cost has been estimated by Mincore Pty Ltd (plant and Clarks Gully tailings pipeline) and Larvotto (earthworks), with pricing guidance from Knight Piesold (non-earthworks TSF).

Capital works include a tailings dam lift and extension at Hillgrove to facilitate commencement of production. The post-production processing capital includes a new tailings dam at Clarks Gully (5km north of Hillgrove) including a tailings pipeline between the Clarks Gully TSF and Hillgrove.

The open pit and underground mining equipment fleets are proposed to be provided under contract/hire agreements. Equipment costs are included in operating costs, not capital.

Capitalised operating costs include all operating costs incurred up until the point the project achieves commercial production, and capitalised mine development costs after commercial production is achieved. Operating costs are estimated as described in 'Operating Cost Estimate'. Items allocated to capital are:

- Pre-Production:
  - o Capital projects, including first fill
  - o Underground development and stoping costs all
  - Open pit mining costs all
  - Processing costs
  - Site administration costs (G&A)
- After Commercial Production:
  - Sustaining capital projects
  - o Underground development capital development only
  - o Open pit mining costs waste pre-stripping only



# **Operating Cost Estimate**

Operating costs were estimated for each area as described:

- Open Pit Mining:
  - Productivity, availability and utilisation assumptions applied to the open pit physicals schedule outputs to calculate required quantities for:
    - Equipment number of units and operating hours
    - Personnel by role
    - Consumables explosives, fuel, tyres, etc.
  - Input costs for contractor rates (including equipment and maintenance), consumables and labour, were sourced gathered from existing estimates, time-adjusted where required.
- Underground Mining:
  - Derived activities calculated from the underground physicals schedule outputs, including calculation of required backfill rehandle.
  - Productivity, availability and utilisation assumptions applied to the derived activities schedule to calculate required quantities for:
    - Equipment number of units and operating hours
    - Personnel by role
    - Consumables explosives, fuel, tyres, etc.
  - Input costs gathered from recent contractor rates (including equipment hire and maintenance) submitted for underground mining at Hillgrove, plus contractor margin.

Operating Costs (production)	\$M	\$/T Milled	\$/Equivalent ounce produced
Underground Mining	272	79	482
Open Pit	31	9	55
Processing	160	46	284
G&A	38	11	67
Royalties	41	12	74
Total	543	157	962
Capital	184	53	326
Total site costs (post-production)	727	210	1,288

### Table 32 Operating Cost Breakdown



- Processing:
  - Throughput, availability and utilisation assumptions applied to the processing physicals schedule outputs to calculate required quantities for:
    - Equipment number of units and operating hours
    - Personnel by role
    - Consumables reagents, fuel, relines, etc
    - Power
  - Input costs and usage rates were provided by Mincore Pty Ltd as part of the 'Hillgrove Mines Re-start, Expansion and Operational Readiness Study' (April 2024).
     Power costs had input from experts with current experience of the NSW power market.
- Site General & Administration:
  - o Assessment of the mining and processing physicals to calculate required personnel.
  - Input costs and usage rates based on current actual costs to manage site under care and maintenance.

# Sales and Marketing

Once operational, three saleable products will be produced:

- Gold doré
- Antimony concentrate
- Gold concentrate

Gold doré is readily saleable with transparent pricing and multiple refinery and bullion traders located within transport distance to Hillgrove.

Sales of both mineral concentrates will be to smelters, either directly or through a trader.

Larvotto have received proposals from multiple traders for both the antimony and gold concentrates. The proposals provided indicative terms for treatment costs, refining charges, penalties (for both grade and deleterious elements) and payability of contained metals. The various terms have been included in the financial model to calculate sale revenue from concentrates on a Net Smelter Return (NSR) basis.

Antimony concentrate will contain some gold which will be payable, although to a lesser extent than gold in doré or gold concentrate.

Gold concentrate will contain a low amount of antimony. Antimony in gold concentrate is not recovered by the smelters treating gold concentrate, so is not payable. Recover of antimony to gold concentrate is excluded from recovered antimony totals in the processing physicals.

Deleterious element penalties are applicable for arsenic content in gold concentrate and are included in the NSR calculations.



# **Financial Evaluation**

The Financial Evaluation was prepared on the following basis:

- Discount rate of 8% was used. This was based on peer analysis of comparative projects.
- All estimated costs are real (not adjusted for inflation).
- A corporate tax rate of 30% has been used and there has been no allowance for the use of tax losses.
- All pre-production capital and corresponding revenue has been capitalised up until the point of commercial production.

Key Financial Model Inputs	Unit	Value
Gold Price	US\$	2,000
Antimony Price	US\$	15,000
AUD:USD Exchange rate	-	0.68
LOM Au head grade (as mined average)	g/t	3.3
LOM Sb head grade (as mined average)	%	1.2
Corporate tax rate	%	30
Pre-production period	months	12
Process plant ramp-up	months	6

### Table 33 Key Financial Model Inputs



Project economics		Base case⁵		Spot	price <sup>6</sup>
	Unit	Pre-Tax	Post-Tax	Pre-Tax	Post-Tax
Total gold produced	koz	287,782	287,782	287,782	287,782
Total antimony produced	kt	40,987	40,987	40,987	40,987
Total gold equivalent ounces produced	koz	563,954	563,954	563,954	563,954
Gross revenue	\$M	1,194	1,194	1,655	1,655
Pre-production capital (net of pre-production revenue)	\$M	73	73	73	73
Free cashflow	\$M	390	252	819	553
NPV (8%)	\$M	261	157	583	383
Internal rate of return (IRR)	%	80	49.6	173	112
Year 1 to 5 average gold-equivalent ounces produced	koz	81,398	81,398	81,398	81,398
Payback period (after ramp-up)	years	2.0	2.0	1.0	1.0
Operating life	years	7.0	7.0	7.0	7.0
C1 costs <sup>1</sup>	\$/oz	887	887	911	911
AISC <sup>2</sup>	\$/oz	786	786	(56)	(56)
EBITDA <sup>3</sup>	\$M	652	N/A	1,082	N/A

### Table 34 Key Financial Model Outputs

Notes :

1. C1 costs = Mining + processing operating expenditure + general and administration expenditure. C1 includes all costs associated with Antimony production and sales. For the purposes of the unit cost calculation, gold-equivalent ounces produced have been used

2. AISC = C1 costs + royalties + sustaining capital less by-product credits (Antimony sales) and excludes corporate costs. For the purposes of the calculation, gold available for sale has been used

3. Earnings before interest, taxation, depreciation and amortisation.

4. Project economics presented on an ungeared, 100% project basis.

5. Base case – Au US\$2,000/oz, Sb \$15,000/t, AUD USD 0.68

6. Spot price at 26 July 2024 – Au \$2,350/oz, Sb \$23,000/t, AUD USD 0.65

### Table 35 Key project Financial Sensitivity Metrics

	Gold price (USD/Oz)	1,600	1,800	2,000	2,200	2,400	2,600
Pre-tax	Antimony price (USD/tonne)	10,000	12,500	15,000	17,500	20,000	22,500
Free cashflow (\$M)		69	231	390	523	673	822
NPV (8%) (\$M)		21	142	261	361	473	585
Internal Rate of Retur	m (IRR) (%)	14	47	80	107	138	170
Post-tax							
Free cashflow (\$M)		27	140	252	345	450	555
NPV (8%) (\$M)		(11)	73	157	227	305	383
Internal Rate of Retur	m (IRR) (%)	5	27	50	68	89	111



# **Competent Persons Statements**

## **Eleanora and Garibaldi Mineral Resource**

The information in this report that relates to estimation and reporting of the Eleanora and Garibaldi Mineral Resource, in accordance with the JORC 2012 Code, is based on and fairly represents, information and supporting documentation compiled by Mr Peter Carolan who is a Member of the Australasian Institute of Mining and Metallurgy. Peter Carolan is a contractor engaged by Larvotto Resources Limited.

Mr Carolan has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr Carolan consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. The information in this report that relates to database compilation, geological interpretation and mineralisation wireframing, project parameters and costs and overall supervision and direction of the Eleanora and Garibaldi estimation is based on and fairly represents, information and supporting documentation compiled under the overall supervision and direction of Mr Carolan.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original report 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 Person's findings are presented have not been materially modified from the original report.

## Syndicate, Sunlight & Black Lode Mineral Resources

The information in this report that relates to the reporting of the Syndicate, Sunlight & Black Lode Mineral Resource Estimate reported in accordance with the JORC 2012 Code is based on and fairly represents, information and supporting documentation compiled by Mr Peter Carolan who is a member of The Australasian Institute of Mining and Metallurgy. Peter Carolan is a contractor engaged by Larvotto Resources Limited.

Mr Carolan has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting and Exploration Results, Mineral Resources and Ore Reserves'.

Mr Carolan consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. The information in this report that relates to database compilation, geological interpretation and mineralisation wireframing, project parameters and costs and overall supervision and direction of the Eleanora and Garibaldi estimation is based on and fairly represents, information and supporting documentation compiled under the overall supervision and direction of Mr Carolan.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original report 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 Person's findings are presented have not been materially modified from the original report.

## Brackins Spur and Clarks Gully Mineral Resource

The information in this report that relates to the reporting of the Brackins Spur, Clarks Gully Mineral Resource Estimate reported in accordance with the JORC 2012 Code is based on and fairly represents, information and supporting documentation compiled by Rodney Webster who is a member of The Australasian Institute of Mining and Metallurgy and a member of the Australian Institute of Geoscientists.

Rodney Webster, the Competent Person for the Brackins Spur and Clarks Gully Mineral Resource estimates included in AMC's report Hillgrove Mineral Resource Estimate ("Report") prepared for Hillgrove Mines Pty Ltd, signed on 11 August 2017, agrees to Larvotto Resources Limited releasing the Brackins Spur and Clarks Gully Mineral Resource statements as part of a Larvotto ASX announcement, in the form and context in which they appear.

The Competent Person for reporting the Brackins Spur and Clarks Gully Mineral Resources according to the 2012 edition of the JORC Code is Rodney Webster. Rodney Webster is a Member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Rodney Webster is independent of Hillgrove Mines Pty Ltd and Larvotto Resources Limited and an independent consultant. The Competent Person visited the site from 19 June to 22 June 2017 to review the drilling, sampling, data entry and quality assurance and quality control (QAQC) data. Mr Webster has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original report 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 Person's findings are presented have not been materially modified from the original report.

This announcement was authorised for release by the Board of Larvotto Resources Limited.

## Hillgrove Ore Reserves

The information in this report that relates to the reporting of Ore Reserves reported in accordance with the JORC 2012 Code is based on and fairly represents, information and supporting documentation compiled by Mr Matt Varvari who is a Fellow of The Australasian Institute of Mining and Metallurgy. Matt Varvari is a full-time employee of Larvotto Resources Limited.

Mr Varvari has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting and Exploration Results, Mineral Resources and Ore Reserves'.

Mr Varvari consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. The information in this report that relates to open pit and underground optimisation, mine design, scheduling and cost estimation, is based on and fairly represents, information and supporting documentation compiled under the overall supervision and direction of Mr Varvari.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original report 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 Person's findings are presented have not been materially modified from the original report.

This announcement was authorised for release by the Board of Larvotto Resources Limited.

# **Reporting Confirmation**

The information in this report contains Exploration Results and a Mineral Resource Estimate relating to the Hillgrove Gold and Antimony Project. This information is extracted from the Company's ASX announcements:

- ASX: LRV Announcement, 22 December 2023, 1.4Moz @ 6.1g/t AuEq Gold-Antimony Hillgrove Project Acquired
- ASX: LRV Announcement, 20 October 2023, Transformational Acquisition

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



# About Larvotto Resources Ltd

Larvotto Resources Limited (ASX: LRV) is actively advancing its portfolio of in-demand minerals projects including the 1.4Moz AuEq high-grade Hillgrove Gold-Antimony Project in NSW, the large Mt Isa copper, gold, and cobalt project adjacent to Mt Isa townsite in Queensland, the Eyre multi-metals and lithium project located 30km east of Norseman in Western Australia and an exciting gold exploration project at Ohakuri in New Zealand's North Island. Larvotto's board has a mix of experienced explorers and corporate financiers to progress its projects. Visit www.larvottoresources.com for further information.

## Forward Looking Statements

Any forward-looking information contained in this news release is made as of the date of this news release. Except as required under applicable securities legislation, Larvotto does not intend, and does not assume any obligation, to update this forward-looking information. Any forward-looking information contained in this news release is based on numerous assumptions and is subject to all of the risks and uncertainties inherent in the Company's business, including risks inherent in resource exploration and development. As a result, actual results may vary materially from those described in the forward-looking information. Readers are cautioned not to place undue reliance on forward looking information due to the inherent uncertainty thereof.



### LARVOTTO RESOURCES LIMITED

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Mr Ron Heeks Managing Director

Ms Anna Nahajski-Staples Non-Executive Director

Mrs Cecilia Tyndall Company Secretary

#### PROJECTS

Hillgrove Au, Sb Hillgrove, NSW

**Mt Isa Au, Cu, Co** Mt Isa, QLD

**Ohakuri Au** New Zealand

**Eyre Ni, Au, PGE, Li** Norseman, WA

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# Appendix A

# JORC Code, 2012 Edition - Table 1

# Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The drilling resource database contains the following sample types:</li> <li>Surface costean samples</li> <li>Diamond drillcore samples</li> <li>Reverse circulation (RC) chip samples</li> <li>Percussion chip samples</li> <li>Underground channel samples</li> <li>Surface channel samples and rock chip samples</li> <li>Surface channel samples and rock chip samples</li> <li>In general, the majority of samples within the mineralised zones were sampled between 0.2 and 2m intervals, based on geology, alteration, and mineralisation contacts. Early drilling does contain some narrower intervals and wider composite samples of 4m intervals were taken away from the main mineralised zones.</li> <li>Early reverse circulation drilling was undertaken with samples within the mineralised zones generally of 1m and external to the mineralised zones composites of 4m were taken.</li> <li>Underground channel sampling was undertaken by experienced geologists. Channel samples were sampled to geological/mineralisation contacts via rock chipping across development drive faces. The channels targeted the central high-grade antimony mineralisation and often do not sample the Au-As edge mineralisation. The channels were sampled perpendicular to the strike of the lode and spaced at 1.5m along strike. Individual samples were generally between 0.1 and 1m in length and 0.5 to 5kg in size, they were crushed to minus 1cm and riffle split with 100g pulverised and a 10g portion collected for digestion and AAS analysis.</li> <li>Drilling program sample preparation and analysis from January 2007 to present were as follows:</li> </ul>



Criteria	JORC Code Explanation	Commentary
		• Samples up to 3kg were crushed to a nominal 6mm, then pulverized to a nominal 75micron Samples (0.25 g) were digested and analysed by ICP with AES finish. Assays exceeding 10,000 ppm for arsenic; 10,000 ppm for antimony; or 500 ppm for tungsten were analysed by XRF. Samples weighing either 30g or 50g were assayed by fire assay. If coarse gold is identified visually in the sample, or if gold assay is greater than 10 ppm, the sample is analysed by screen fire assay.
Drilling Techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Prior to 2020 drilling techniques were percussion drilling, diamond drilling and diamond drilling with RC pre-collars. Diamond drilling techniques only were used for the 2020/22 drilling programs.</li> <li>Drillcore sample data used for the grade estimation are from either whole-core or half-core samples from BQTK, LTK48, NQ2 or HQ3 size drillcore.</li> <li>Core orientation marks were attempted using a spear and crayon in mineralised zones from January 2007 and 2008.</li> </ul>
Drill Sample Recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Drilling programs from January 2007:</li> <li>Intervals of core loss were logged using a qualitative code and recorded in the acQuire database. Core recovery was measured, recorded on a digital device, and transferred to the acQuire database.</li> <li>Drilling techniques were changed when drilling through highly fractured rock or gouge zones. Drilling muds were increased; water pressure was reduced. This change in technique decreased the likelihood of core loss.</li> <li>Drillcore photos, and geotechnical logs have been reviewed for each of the projects.</li> <li>Core loss/core recovery and void measurements recorded on hard copies were transferred to the acQuire database and stored in the Lithology table as Core Loss or Void. For intervals with no core loss logged or stated core recovery measurements, it is not clear if there was no core loss for these intervals or if the information wasn't collected.</li> <li>No bias is evident due to the preferential loss of fines or sample recovery.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature.</li> </ul>	<ul> <li>Drilling programs from January 2007:</li> <li>Lithology, weathering, mineralisation, veining, alteration and structure were logged.</li> <li>Core recovery and RQD were logged (quantitatively).</li> </ul>



Criteria	JORC Code Explanation	Commentary
	<ul> <li>Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>In-situ bulk density measurements were recorded for most mineralisation intersections.</li> <li>Drillcore photos are available.</li> </ul>
		<ul> <li>Drilling programs prior to January 2007:</li> <li>Lithology, weathering, mineralisation, veining, alteration and structure were logged.</li> <li>Some core loss intervals have been logged qualitatively, and some core recovery intervals have been logged quantitively.</li> <li>There is sufficient logging to support mineral resource estimates, and mining studies.</li> <li>A geotechnical study by a qualified person is recommended.</li> <li>RQD logging data is available, and mineralisation is exposed in underground workings. The logging is sufficient to support metallurgical testwork.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Drilling programs from January 2007:</li> <li>Samples up to 3kg were crushed to a normal 85% passing 75micron.</li> <li>Some intervals were adjusted within mineralisation to correspond with a change in mineralisation style, or by observed changes in concentration of minerals of economic interest.</li> <li>Duplicate samples were collected following the coarse crush (up to 3kg) and following the pulverisation at a rate of 5%. Duplicate samples of pulverized material from the 2007/8 sampling were sent to an umpire laboratory at a rate of approximately 5% for the mineralised zones.</li> <li>Drilling programs prior to 2007:</li> <li>There is limited documentation for the sample preparation methods and QAQC procedures.</li> <li>NEAM Channel Sampling between 1988 and 2000 was carried out by experienced geologists. 0.5 to 5kg samples were taken using rock chipping methods. These were crushed to minus 1cm and riffle split to obtain two 110-gram samples. One sample was stored for check assaying and one was pulverised in ring mill and a 10g portion provided onsite AAS analysis.</li> </ul>
Quality of assay data	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the</li> </ul>	For drilling from 2007:



Criteria	JORC Code Explanation	Commentary
and laboratory tests	<ul> <li>technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The laboratory procedures and assaying are appropriate, and the laboratory is NATA certified. The analytical methods are considered total for the elements of interest.</li> <li>Standards, blanks, duplicates and umpire assays have been used and levels of accuracy, precision and bias have been established for different drill programs. No indication of any overall material bias has been established.</li> <li>For Channel Sampling. Although the actual QAQC data has not been reviewed conclusions from company records state that:</li> <li>Periodically random duplicate crush splits were check assayed with conclusion of no systematic assay bias. High gold assays also had their duplicate assayed.</li> <li>Umpire samples were sent to an offsite lab for fire assay and XRF/AAS. No systematic bias other than the onsite lab under calling due to incomplete digestion of gold in arsenopyrite gold.</li> <li>Historic mine production at different times indicate that up to 15% overall on antimony grades for estimates based on channel sample data may occur.</li> <li>The levels of accuracy, precision and bias achieved for various programs and any lack of QAQC has been taken into consideration during the estimation process and when assigning Resource Classifications.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The Larvotto Competent Person (Metz and Garibaldi Areas) visited Hillgrove in March and September 2019 and inspected mineralised drillcore and checked the database.</li> <li>The AMC Competent Person (Clarks Gully and Brackins Spur areas) visited Hillgrove in June 2017 and inspected mineralised drillcore and checked the database.</li> <li>All drilling in the 2020/2022 programs was undertaken within the previously reported Mineral Resource area with the intention of verifying the earlier results.</li> <li>Drilling from the 2022 Bakers Creek program is outside off the current resource.</li> <li>Adjacently drilled holes from different programs/drilling methods were assessed for interval thickness and grade variance.</li> <li>The data is stored in an acQuire database which is routinely backed up. Database backups are securely stored offsite. Standard data entry objects are set up within the database for importing data, and documented procedures for data entry are</li> </ul>


Criteria	JORC Code Explanation	Commentary
		<ul><li>available. A spreadsheet contains documentation for the validation of the historical and recent drill hole data.</li><li>Assay data is not adjusted.</li></ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill hole collars were surveyed and down-hole surveys are taken using appropriate tools.</li> <li>For historic data, some information has been digitized from plans and sections. This is recorded in the acQuire database and a "hole confidence" value indicates the quantitative assessment of the quality of the survey.</li> <li>Historic mine workings stopes and ore drive locations have been estimated from digitised plans and sections.</li> <li>The Grid system is AGD66. Recent Lidar survey of topography was completed for the Eleanora and Garibaldi areas.</li> <li>Bakers Creek collars were surveyed with RTKGPS (+-0.1m). Downhole surveys conducted with digital magnetic multi-shot camera at 20-40m intervals. A portion of drill holes were surveyed by multi-shot survey. Coordinate system used is GDA94 MGA Zone 56.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill hole intercepts within the Mineral Resource areas are spaced between sub 30 x 30m out to 150 x 150m.</li> <li>Sections of some of the Mineral Resources are based on Level channel sample data, these samples are a nominal 1.5 m spacing along ore drives and vertically 35 to 50m between Levels. In stope channel samples between Levels were not used in the estimation process.</li> <li>This distribution confirms a degree of geological continuity within the mineralised system such that Mineral Resource Estimation and the assigned classifications are appropriate.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The drill holes were drilled at varying angles to intersect the steeply dipping mineralisation at the best possible angle given the available locations for drill sites.</li> <li>The drill hole locations, and orientations relative to the mineralisation are considered satisfactory. Intersection angles have been taken into consideration during the estimation process.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Sample security	• The measures taken to ensure sample security.	• Samples are transported to the laboratory on a regular basis. Residual coarse rejects and pulps are returned to site and stored in a secure core-shed, or in a container located in an area which requires authorization to gain access.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data</li> </ul>	<ul> <li>An independent Technical Valuation report prepared by Coffey Mining for Emu Nickel NL in 2012 noted that the quality of the NEAM face sampling data may have issues (unspecified), and that there was a lack of historical QAQC data.</li> <li>An independent technical review prepared by Snowden for Bracken Resources in 2014 noted that the data collection practices met industry standards and are appropriate for use in Mineral Resource estimation. The data obtained by NEAM should be confirmed through re-sampling where possible and submitting standards, blanks and duplicates as per HGM's QAQC program.</li> <li>Review of QAQC data for sampling between 2004 and 2008 indicates fair performance of Au duplicates and poor performance of Sb duplicates, this has been incorporated into the confidence classification for the Resource.</li> </ul>



## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code Explanation	Commentary
<i>Mineral</i> <i>tenement and</i> <i>land tenure</i> <i>status</i>	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The Hillgrove operations are covered by 51 tenements (4 Exploration Leases, 33 Mining Leases, 6 Private Land Leases, 3 Gold Leases and 5 Mining Purpose Leases). There are no impediments to the tenements which are 100% owned by Hillgrove Mines.</li> <li>All tenements are currently in good standing.</li> <li>The Exploration Leases are in good standing.</li> <li>There are no joint venture agreements relevant to the area of interest.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	• There have been numerous exploration programs conducted by various companies at Hillgrove. Where possible available data has been reviewed and incorporated into the onsite database. Hillgrove Mines has no reason to doubt the accuracy of any of the previous work conducted onsite.
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The Hillgrove mineralisation can be classified as orogenic stye, antimony – gold deposits, that are hosted in a combination of the Mid Carboniferous Girrakool Sediments and Late Carboniferous – Early Permian Granites. The setting is part of the New England Orogen, one of four which formed most of the east coast of Australia. The mineralised zones are structurally controlled within a NW trending shear corridor, formed from the movement of two regional faults (Hillgrove and Chandler). Multi-phase antimony – gold – tungsten mineralisation has been hydrothermally emplaced into narrow shears (0.1 m – 10 m wide), which have good strike and depth extents. Gold mineralisation is predominantly refractory (associated with arsenopyrite), and also occurs as aurostibite and as particle gold.</li> </ul>
Drill hole information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis</li> </ul>	<ul> <li>Drill hole collar coordinates and elevation have been accurately surveyed by a qualified surveyor.</li> <li>Dip and azimuth of the drill holes have been recorded using a conventional downhole camera. A limited number of holes were also checked with a downhole gyrometer, with no significant difference from the downhole camera.</li> <li>Hole length and downhole intervals have been recorded using the standard practice of drill rod lengths and checked by geological staff.</li> </ul>



Criteria	JORC Code Explanation	Commentary
	that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Past exploration results have been reported based on historic economic requirements for a standalone deposit at Hillgrove.</li> <li>Intercepts that have been bulked over multiple intervals use weighted averaging techniques to report the grades.</li> <li>During the estimation process top-capping was applied to anomalous high grades.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>All drill holes were designed to intersect the mineralised zones as close to true width as possible.</li> <li>When assessing drill hole intercepts the dip and strike of the mineralised zones has been taken into consideration.</li> <li>Drill holes with less than ideal intersection angles were identified and accommodated in the estimation process.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	No new exploration results reported.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	No new exploration results reported.
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>A Helimag airborne geophysical survey was flown over the Hillgrove tenements in 2007. Several exploration targets were generated from the resulting images.</li> <li>A Lidar survey was completed in 2017 over the Bakers Creek Gorge to provide 1m contours for topographic control and aerial photos for exploration.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Work is ongoing at Hillgrove, including exploration and the PFS study.</li> <li>Resource infill at Clarks Gully will commence in due course.</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Procedures are available for loading data in the database and standard database import and export objects are used to upload and download data.</li> <li>The validation of collar and downhole survey, analytical method, and QAQC data is recorded in spreadsheets.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Larvotto Competent Person (Metz and Garibaldi) visited the site in March and September 2019 and reviewed the sampling, analytical methods, QAQC, procedures and the database.</li> <li>The AMC Competent Person (Clarks Gully &amp; Brackins Spur) visited the site in March and September 2019 and reviewed the sampling, analytical methods, QAQC, procedures and the database.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The geological interpretation has a good level of confidence. For areas where the level of confidence is uncertain due to lack of data or geological complexity this has been taken into consideration when assigning the resource classification to the estimates.</li> <li>The mineralisation is hosted within steep shear and breccia structures. Continuity of these structures is significant as defined through the mine workings and drilling. Higher grade mineralisation is seen to occur on the structures within the plunging shoots. The definition is well understood where development exposure and</li> </ul>



Criteria	JORC Code Explanation	Commentary
		channel sampling exist. Lower grade gold-quartz-arsenopyrite, veining and halo mineralisation surrounds structures to varying widths.
Dimensions	<ul> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul> <li>The Eleanora / Garibaldi mineralised system is defined over 1.3km along strike to 800 m below surface. The Resource is currently limited to 500m below surface. The width of the mineralisation is generally between 0.3 to 6m. A lamprophyre dyke of generally around 1m width has intruded along the mineralised structure and often divides the mineralisation into parallel lodes.</li> <li>Although the mineralisation is generally strongest on the main structure; splays, parallel structures and network veining host hanging wall and footwall mineralisation.</li> <li>In the south, in the Garibaldi area an additional two parallel lodes are defined in the east wall. Of these lodes the eastern lodes become more dominant toward the south. In this area the resource is limited to 300m depth due to the current depth extent of the drilling.</li> <li>Blacklode is defined over 900 m along strike to 700 m below surface. The width of the mineralisation is generally between 0.3 to 2 m reaching up to 8 m. 10 adjacent sub parallel or splay lodes are included in the Blacklode Resource.</li> <li>Sunlight is defined over 690 m along strike to 550 m below surface. The Sunlight Resource includes the two main breccias (strike 115), generally 0.2m to 2 m wide, separated by up to 5 of weaker vein mineralisation. Iom to the north a similar sub parallel weaker mineralisation is defined along a 500 m strike, occur south of the Blacklode to Sunlight junction.</li> <li>Syndicate mineralisation is defined along a 500 m strike and to a depth of 800 m below surface. The width of the mineralisation is generally between 0.3 to 2 m reaching up to 8 m. The current Mineral Resource excludes historically mined areas and is defined between 300m and 800m below surface.</li> <li>The mineralisation is defined within a shear structure containing stibnite veining and gold mineralisation within quartz – arsenopyrite veining. Minor sub-parallel lodes were also modelled but were not included in the Mineral Resource</li> <li>Bracking Spur is defined over a 1.2</li></ul>



Criteria	JORC Code Explanation	Commentary
Criteria Estimation and modelling techniques	<ul> <li>JORC Code Explanation</li> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>Commentary</li> <li>For the Metz and Garibaldi Mineral Resources; CAE Studio (Datamine) software was used for domain creation, block model construction and grade estimation. Snowden Supervisor software was used for statistical analysis and to develop model parameters.</li> <li>Domains controlling the resources are based on geology and intensity of mineralisation where the presence of quartz-arsenopyrite veining +/- quartz-breccias and/or the presence of stibnite occurring as massive or in veins indicates lode mineralisation. The difference in channel and drill hole sample selectivity was noted and considered during the estimation process.</li> <li>Sample compositing within domains to was undertaken.</li> <li>Anomalously high gold and antimony grade values were top-capped.</li> <li>The use of different sample types (channel and drill hole) was taken into account during the estimation and classification process. De-clustering of channel sampling was applied. Limits to the extent of influence from channel samples was applied.</li> <li>Where sufficient data, variography on individual domains was used to develop model estimation parameters. For domains with less data, model parameters were shared from more well-defined domains.</li> <li>A 3D block model rotated to approximate strike of the system was developed, block size of 5 x 2.5 x 5 was considered appropriate for the closest spaced data.</li> <li>Estimation of gold and antimony grades was carried out using ordinary kriging and inverse distance squared methods.</li> <li>Multiple estimation passes were used with increasing search ellipses.</li> <li>Historical Mine production showing a high antimony bias from channel samples was taken into account.</li> <li>Digitised historical records of underground stoping was used to exclude mined out material from the model.</li> <li>No allowance is made for the recovery of by-products.</li> <li>Underground mining methods assume a selective approach to limit dilution however the actual dimensions are not assumed in the</li></ul>
		<ul> <li>Full width domain intervals were checked against domain thickness, for conservation of volume.</li> </ul>



Criteria	JORC Code Explanation	Commentary
		<ul> <li>For the Brackins Spur Mineral Resource CAE Studio (Datamine) software was used to undertake a 2D estimation. Block centroids were exported and imported into a GEOVIA Surpac 3D block model.</li> <li>For Brackins Spur sample spacing is on a nominal 40 m x 40 m grid and the 2D estimates were into 18 m x 18 m blocks.</li> <li>For the Clarks Gully Mineral Resource GEOVIA Surpac software was used to undertake a 3d estimate.</li> <li>Clark's Gully is sampled on a nominal 30 m x 30 m grid and estimated into parent blocks 10 mN x 1 mE x 10 mRl and sub-blocks are of dimensions 2.5 mN x 0.25 mE x 2.5 mRl.</li> </ul>
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Moisture content is not currently taken into consideration.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>For the Metz and Garibaldi areas a 3g/t gold equivalent cut-off is based on a gold price of \$US2,200 per ounce and antimony price of \$US15,000 per tonne.</li> <li>The gold equivalent equation for Metz and Garibaldi is:</li> </ul>
		Aug/t + Sb% x [(US\$ 15,000 x 89.6%)/((US\$ 2,200 / 31.1035)x 83.3%)]
		<ul> <li>Previous mill production demonstrates both antimony and gold can be recovered and sold, and that the stated recoveries are achievable.</li> <li>Total gravity/float recoveries of 83.3% gold and 89.6% antimony were the estimated averages from engineering assessments during the first half of 2024.</li> <li>The use of 3 g/t Au equivalent cut-off is appropriate given current mining studies show the Mineral Resources are potentially economic at a 3 g/t Au equivalent.</li> <li>No minimum lode thickness constraints have been placed upon the Resource.</li> <li>For the Clarks and Brackins areas a 5g/t gold equivalent cut-off is based on commodity and recovery assumptions at the time of estimation (July 2017) a gold price of \$US1,911 per ounce and antimony price of \$US11,650 per tonne and recoveries of 91% Au and 86% Sb.</li> <li>The gold equivalent equation for Clarks and Brackins is:</li> </ul>
		Aug/( 91% + 50% x 80% x [( 05\$ 11,050/100) / ( ( 05\$ 1,911 / 31.1035 )]



Criteria	JORC Code Explanation	Commentary
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul> <li>Mining methods are assumed for to be underground long hole stoping with a 20m level spacing.</li> <li>Mining assumptions are based on historical site costs.</li> <li>Minimum mining widths of 2.8m are expected.</li> <li>Grade of material outside of the mineralised domains was excluded from the Mineral Resource and removed from model prior to Reserve assesment.</li> </ul>
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>Updated PFS metallurgical test work and an assessment of production data through the Hillgrove mill, shows that total gravity / float recoveries of 83.3% Au and 89.6% Sb are achievable.</li> <li>This antimony recovery is applicable where Sb head grades are 1% or greater.</li> </ul>
Environmen- tal factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul> <li>No environmental impediments impact on the operations.</li> </ul>
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void</li> </ul>	<ul> <li>Bulk density was measured by the water displacement method using buoyancy for drillcore samples from 2005.</li> <li>A regression between bulk density and estimated antimony grade was developed.</li> <li>Density was written to the Resource Model using estimated antimony grade and the regression formula.</li> </ul>



Criteria	JORC Code Explanation	Commentary
	<ul> <li>between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>The Mineral Resources have been classified according to the confidence in sample data, sample spacing and confidence in the modelled continuity of both the thickness and grade of the mineralised material.</li> <li>Measured, Indicated and Inferred blocks have been reported.</li> <li>The resource classification is deemed appropriate in relation to the drill spacing and geological continuity of the mineralised domains, recovery, sample spacing and QAQC results.</li> <li>The classification appropriately reflects the Competent Persons confidence of the estimate of the ore body.</li> <li>Measured areas are sampled either through development and channel sampling or diamond drilling generally at sub 30 m x 30 m spacing.</li> <li>Indicated areas are extensions beyond indicated areas and are drilled out to a 100m drill hole is limited to generally 60m.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>An independent Technical Valuation report prepared by Coffey Mining for Emu Nickel NL in 2012 noted that the quality of the NEAM face sampling data may have issues (unspecified), and that there was a lack of historical QAQC data.</li> <li>An independent Technical Review prepared by Snowden for Bracken Resources in 2014 noted that the data collection practices met industry standards and are appropriate for use in Mineral Resource estimation. The data obtained by NEAM should be confirmed through re-sampling where possible and submitting standards, blanks, and duplicates as per HGM's QAQC program.</li> </ul>
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource 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 resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the	• The Competent Person(s) considers the global and local estimated tonnes and grade to be of a reasonable accuracy suitable for mine planning. Previous mining and the use of channel samples to estimate the resource adds to the confidence of the estimate. Appropriate estimation techniques and parameters have been used. The Mineral Resource classification is appropriate based on the drilling density, surveying method, sampling and QAQC results.



Criteria	JORC Code Explanation	Commentary
	<ul> <li>relative accuracy and confidence of the estimate.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	



## Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in section 2 and 3, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
<i>Mineral</i> <i>Resource</i> <i>estimate for</i> <i>conversion to</i> <i>Ore Reserves</i>	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul> <li>The Ore Reserve estimate is prepared from the following Mineral Resources reported by Larvotto Resources on 5 August 2024: <ul> <li>Measured &amp; Indicated: 4.43Mt at 4.7 g/t Au, 1.3% Sb and 8.1g/t AuEq</li> <li>Inferred: 2.84Mt at 4.0 g/t Au, 0.9% Sb and 6.1g/t AuEq</li> </ul> </li> <li>The Mineral Resources are reported inclusive of Ore Reserves.</li> <li>Some re-coding of the original Mineral Resource block models was done to ensure correct reporting of the tonnes, grade and classification through to the Ore Reserve.</li> <li>Block Models used to as the basis for the Ore Reserve estimate were: Underground areas: <ul> <li>Metz Syndicate: m_s_b_gc_desw.dm</li> <li>Garibaldi: m_ea_f_desw.dm</li> <li>Clarks Gully: clg_201607_recode_mii_v1.dm</li> <li>Garibaldi: elgb_2211_reg_upper.dm</li> <li>Clarks Gully: clg_201607_recode_mii.dm</li> </ul> </li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	The Ore Reserve estimate was completed by Matt Varvari who is the General Manager Hillgrove for Larvotto Resources and works on site at Hillgrove Mine.
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	<ul> <li>The Ore Reserve estimate is supported by a Pre-feasibility Study for the Hillgrove Project reported by Larvotto Resources on 5 August 2024 (this study).</li> <li>The Pre-feasibility Study has undertaken:         <ul> <li>Engineering assessments for the processing plant and infrastructure</li> <li>Optimisation, mine design and schedules for underground and open pit mines, with application of modifying factors to estimate tonnes and grade</li> <li>Capital and operating cost estimates, including royalites</li> <li>Estimation of revenue on a Net Smelter Return (NSR) basis, with consideration of realisation charges, payability and penalties</li> </ul> </li> </ul>



Criteria	JORC Code Explanation	Com	nmentary			
			<ul> <li>Financial evaluation frequencies</li> <li>0.67).</li> <li>Financial evaluation pricing for the Pre-fee A\$:US\$ 0.68).</li> </ul>	to pass econor eserve (US\$1, showing attrac easibility Study	nic test at the sel 800/oz Au, US\$1 ctive project econ / (US\$2,000/oz <i>A</i>	ling prices applied to 0,000/t Sb, A\$:US\$ omics at Base Case Au, US\$15,000/t Sb,
Cut-off parameters • The basis of the cut-off grade(s applied.	<ul> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>Cut-off grades applied to select material for inclusion in the Ore Reser         <ul> <li>Open Pit: 1.36 g/t</li> <li>Underground: 2.80 g/t</li> <li>Stockpiles: 1.25g/t</li> </ul> </li> <li>These cut-offs are applied after the application of modifying factors to mining dilution.</li> <li>Revenues for cut-off calculations are calculated on a Net Smelter Rebasis, with consideration of realisation charges, payability and penalties</li> <li>The table below shows the input parameters, cost inclusions and cut-off</li> </ul>			actors to account for melter Return (NSR) penalties and cut-off grades.	
			Parameter	Input to	Cut-off Grade Cal	culation
			Selling Prices for Cut-off			
		Gold	Gold	US\$ 11,000 /t		
			Anitmony		US\$ 1,850 /oz	
			A\$:US\$ Exchange		0.670	
			Costs Included in Cut-off	Open Pit	Underground	Stockpiles
			Operating Development	No	Yes	No
			Stoping	No	Yes	No
			Grade Control	Yes	Yes	No
			Incremental Haulage	Yes	No	Yes
				Yes	Yes	Yes
			ISF (LOM average)	Yes	Yes	Yes
			Site G&A	Yes	Yes	Yes
			Cut-off Grade (Au Eq g/t)	1.36	2.80	1.25



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Mining factors or assumptions	<ul> <li>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).</li> <li>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.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul> <li>Open pit mining has been selected prior to commencing underground at Garibaldi and Clarks Gully.         <ul> <li>In both areas, waste mined from the pits will be utilised to construct site infrastructure (tailings storage facilities) providing cost efficiencies and reducing the sites disturbance area by avoiding the need to separate borrow pits to provide the required material for construction.</li> <li>Pit design criteria were:                 <ul>                         Load &amp; Haul fleet of 120t excavator and 40t articulated trucks;</ul></li></ul></li></ul>



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		<ul> <li>The underground mining method selected is modified Avoca with rock backfill. The method is appropriate for the narrow orebodies and enables waste rock to be placed underground, reducing surface footprint. Paste fill was considered inappropriate due to the distance of the underground mining areas from the processing plant and the challenging topography.</li> <li>Underground Design criteria were:</li> </ul>
		<ul> <li>Nominal 20m level interval (down to 15m to fit existing levels in some locations)</li> <li>Stope minimum mining width 2.8m</li> <li>Stope panel length per blast/fill cycle 7.5m</li> <li>Development profiles: 5m x 5m capital, 4.5m x 4.5m operating</li> </ul>
		<ul> <li>Underground optimisation was carried out by:</li> <li>Generating 10m long stope blocks down to the minimum mining width across each resource block model</li> <li>Creating scenarios at cutoff grades ranging from 3.0-5.0 g/t AuEq, with estimates of development requirements, preliminary schedules and cost/revenue estimates to to determine optimal cut-off and plant throughput.</li> </ul>
		<ul> <li>Modifying factors applied to underground mining areas were:         <ul> <li>Stopes, mining dilution: 13.33% (1.0m endwall dilution from rockfill on 7.5m panel)</li> <li>Stopes, mining recovery: 95% for downhole stopes, 60% for uphole stopes (sill pillar recovery).</li> </ul> </li> <li>Development: no modifying factors were applied</li> </ul>
		<ul> <li>Centralised infrastructure is in place for Metz Underground (offices, workshop, changerooms/ablutions, water management) and will continue use for all underground mining areas. Each mining area will require establishment of services (power, water, ventilation) which is included in the schedule and cost estimate.</li> </ul>
		• A geotechnical assessment was carried out as part of the Pre-feasibility study. It reviewed all available geotechnical reports, geotechnical logs of drillholes and inspected drill core and the accessible underground workings. The assessment found that the design criteria (underground and open pit) and ground support applied to build the mine schedule and cost estimate are appropriate for the study. A number of recommendations were made for work to be completed as part of the



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		<ul> <li>Definitive Feasibility Study and prior to mining, to collection and analysis of additional geotechnical data, followed by modelling to de-risk and refine the mine designs for the underground and open pit areas.</li> <li>No Inferred Mineral Resources are included in the Ore Reserve. Inferred Resources were included in the Life-of-Mine Production Target used in the economic analysis to support the Ore Reserve estimate. Contained metal in the Production Target consists of 92% Ore Reserves, 3% Indicated Resource (outside reserves) and 5% Inferred Resource. The low portion of Inferred Resource in the Production Target does not materially affect the outcome of the economic analysis supporting the Ore Reserve.</li> <li>Ore haulage from the mines will be by mine trucks from Metz, Garibaldi and Brackins Spur (all located at the Hillgrove Mine site) and via public roads with 30t truck/dog combinations from Clarks Gully (10.4km).</li> </ul>



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Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>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.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	<ul> <li>Ore is to be processed through the Hillgrove processing plant which is planned to upgrade to 500-550ktpa throughput.</li> <li>Gravity gold is recovered via a Knelson concentrator, feeding an Acacia Intensive Leach reactor, following by electrowinning and smelting to produce doré on site.</li> <li>The flotation circuit produces antimony and gold concentrates, which are filtered and bagged for transport on site.</li> <li>Whilst the plant throughput is proposed to be upgraded, the gravity and flotation recovery circuits are well tested having previously operated in 2014/15 and 2021/22, during which a total of 449kt of ore was treated.</li> <li>Metal recoveries to the different saleable products are estimated using regressions based on mill feed grade for the gravity gold (doré) and flotation circuits (Au and Sb concentrates), with regression inputs derived from analysis of actual plant performance.</li> <li>Estimated recovery varies depending on feed grade and the average recovery to payable products for the Study is 83.1% for Au and 86.0% for Sb.</li> <li>Metallurgical test work is available for the all mining areas and additional mineralogical and metallurgical test work understand variability and optimise performance for:         <ul> <li>Recovery to gravity recoverable gold</li> <li>Grind size for flotation (Au &amp; Sb) and impact on residence time/recovery</li> </ul> </li> <li>The key factor determining concentrate quality and payability is metal grade. Estimated concentrate grades vary depending on feed grade and the average grades of each concentrate: 60.1% Sb and 23.4g/t Au         <ul> <li>Gold concentrate: 39.3 g/t Au</li> </ul> </li> </ul>
<ul> <li>The status of studies of potential environmental impact tal</li> <li>The status of studies of potential environmental impact the mining and processing operation. Details of waste rock characterisation and the consideration of potentia sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</li> </ul>	• 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> <li>Hillgrove Mines operates under and existing environmental management framework, with several development consents and mining leases settging conditions against which the mine is managed.</li> <li>Existing and future development consents are/will be supported by environmental assessments that identify environmental impacts of the mining and processing operations.</li> </ul>



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		<ul> <li>Environmental assessments are shared with regulatory authorities and the community and mitigating actions are developed in consultation with stakeholders, before being effected as conditions into the consent.</li> <li>Environmental assessments for new and modified consents have commenced and have not identified any issues that are expected to prevent the required permitting being approved in time.</li> <li>Waste rock at Hillgrove is either used underground as backfill, stored in waste rock stockpiles on surface or used to construct infrastructure. Waste rock characterisation has been conducted during previous mining operations, which shows that Hillgrove waste rock is non-acid forming and does not readily leach metals (unlike the ore).</li> </ul>
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	<ul> <li>Infrastructure is in place:         <ul> <li>Processing plant (250ktpa)</li> <li>ROM pad</li> <li>10MVA 66/11kV main transformer (connected to grid)</li> <li>Mechanical and electrical workshops</li> <li>Metallurgical laboratory</li> <li>Administration offices and ablutions/changerooms</li> <li>Tailings Storage Facilities TSF1 and TSF2</li> <li>Surface water management dams and treatment plant</li> <li>Access, services (power/water/dewatering) and vent for Metz underground</li> </ul> </li> </ul>
		<ul> <li>New infrastructure to be added with the project development:         <ul> <li>Plant expansion, raising capacity to 500-550ktpa</li> <li>Tailings capacity – raising of TSF2, extension to TSF2 West and new Clarks Gully TSF (with pipeline to process plant)</li> <li>Noise and dust abatement bund</li> <li>Power and services for new portals to be established at Garibaldi, Clarks Gully and Brackins Spur (upgrade existing).</li> </ul> </li> <li>Repurposing of existing infrastructure:         <ul> <li>Antimony SX/EW circuit – cells and rectiformer to be removed and shed modified to be used as concentrate storage and loading facility.</li> </ul> </li> </ul>
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> </ul>	Operating costs have been estimated by:



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	<ul> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<ul> <li>Applying productivity, availability and utilisation the mining and processing physicals (including derived activities) to calculate required quantities for equipment, personnel, consumables and power.</li> <li>Input costs for equipment, personnel, consumables and power have been sourced from current administration costs, previous operating budgets, rates submitted by contractors, updated budget pricing for consumables and advice from consultants regarding power pricing in the NSW market.</li> <li>Capital costs have been estimated by:         <ul> <li>Engineering cost estimate by Mincore Pty Ltd for plant expansion, restart and tailings pipeline, completed in April 2024.</li> <li>Capitalised operating costs for pre-production operations and mine development.</li> <li>Earthworks costs for civil construction (TSF) allocated from mining operating cost estimate.</li> <li>Pre-production capital costs include:                 <ul> <li>Capital/construction projects, including first fill</li></ul></li></ul></li></ul>



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Revenue factors	<ul> <li>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.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	<ul> <li>Payabilities (of contained metal) and realisation costs for concentrates (transport, treatment and refining charges) are based on proposals Larvotto have received from traders and indicative transport charges.</li> <li>Payabilities will be factored against prevailing metal prices at the time of transaction.         <ul> <li>Metal prices assumed for economic test of the Ore Reserve estimate are:                 <ul> <ul></ul></ul></li></ul></li></ul>
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	<ul> <li>For gold doré sales, there is a well-established and transparent market.</li> <li>For gold concentrate sales, concentrates can be sold to a variety of smelters either in Australia or internationally.         <ul> <li>During 2021 gold concentrate from Hillgrove was sold to a copper smelter where the concentrate was treated and gold recovered as a by-product of the copper.</li> <li>Larvotto have received multiple proposals for offtake agreements from metals traders for purchase of the gold concentrates from Hillgrove.</li> </ul> </li> <li>For antimony concentrate sales, concentrates can be sold to a variety of international smelters.         <ul> <li>Larvotto have received multiple proposals for offtake agreements from metals traders for purchase of the gold concentrates from Hillgrove.</li> </ul> </li> </ul>



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Economic	<ul> <li>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.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>Inputs to the financial model are:         <ul> <li>Capital and operating cost estimates from the Study, estimated as described above (no escalation has been applied to costs)</li> <li>Physicals schedule of saleable products (quantity and quality)</li> <li>Realisation costs and payability from proposals received by Larvotto</li> <li>Metal prices assumed for Base Case of the Pre-feasibility Study (no escalation has been applied to selling prices):                 <ul></ul></li></ul></li></ul>
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	<ul> <li>Larvotto have at the Hillgrove Mine, established access agreements, freehold land and crown lands leases. They are in frequent consultation with the Armidale Regional Council, various state regulators and hold good standing with the local community.</li> <li>Larvotto will continue to communicate and negotiate in good faith with all stakeholders as part of the proposed development. It is not expected that there will be any significant impediments to development of the project.</li> </ul>
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>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.</li> </ul>	<ul> <li>No naturally occurring risks have been identified as part of the study.</li> <li>All tenements are held in good standing and communication with key stakeholders is ongoing.</li> <li>Larvotto are in discussion with a number of metals traders regarding offtake agreements but at the time of publishing none are committed and there is no exclusivity with these discussions.</li> <li>The permitting strategy for gaining the consents required for development of the project is:         <ul> <li>Phase 1 – modification of existing consents (state and Council) to extend mine life, increase processing rate and provide sufficient tailings capacity for re-commencement.</li> <li>Phase 2 – new state Ministerial consent (State Significant Development) to permit operations at Clarks Gully, provide life-of-mine tailings capacity and consolidate all existing consents.</li> </ul> </li> </ul>



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		<ul> <li>Larvotto are advanced in the process of preparing submissions to formally initiate the consenting processes and baseline environmental studies have commenced. The Study's proposed date for first ore in early 2026 has been developed with guidance from the planning regulator and advising consultants experienced with the development consenting in NSW.</li> <li>No unresolved matters relating to any third party have been identified which may affect the development of the project</li> </ul>
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul> <li>Mineral Resources informing the open pit Ore Reserves include both Measured and Indicated material. All open pit Ore Reserves are classified as Probable as there is insufficient confidence in the mining dilution and recovery factors to support classification as Proved, due to the lack of operating history of open pit mining at Hillgrove.</li> <li>Underground mining shapes were classified based on the proportion of material within the shape, where:         <ul> <li>Measured Resource &gt;95%, classified as Proved Reserve</li> <li>Indicated and Measured Resource &gt;95%, classified as Probable Reserve (if not Proved)</li> <li>Indicated Resource &lt;95%, excluded from Ore Reserve.</li> </ul> </li> </ul>
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	No external audit or review of this Ore Reserve estimate has been undertaken.
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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.</li> <li>Accuracy and confidence discussions should extend to</li> </ul>	<ul> <li>The design, schedule and financial model for the Hillgrove Project has been completed to a Pre-feasibility standard with a +/-25T level of confidence.</li> <li>A degree of uncertainty exists with the geological estimates used to estimate the Ore Reserve which is reflected in the Mineral Resource classification.</li> <li>The Ore Reserve is best reflected as a global estimate.</li> <li>There is a degree of uncertainty regarding estimates of modifying mining factors, geotechnical and processing parameters that are of a confidence level reflected in the level of the study.</li> <li>There is a degree of uncertainty in the prices used: <ul> <li>The Competent Person is satisfied that the assumptions used to determine economic viability of the Ore Reserve are reasonable at time of publishing.</li> </ul> </li> </ul>



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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Competent Person is satisfied that a suitable margin exists that the Ore Reserve estimate would remain economically viable with any negative impacts applied to these factors or parameters.</li> </ul>

